

## GLOBAL AMR R&D HUB:

### Results of the Survey on the Provisional Work Plan 2018-2021

The provisional work plan is reproduced in Annex I to this document. The Board of Members of the Global AMR R&D Hub at its first meeting on 13 September 2018 adopted the workplan that is published on the [www.globalamrhub.org](http://www.globalamrhub.org) website.

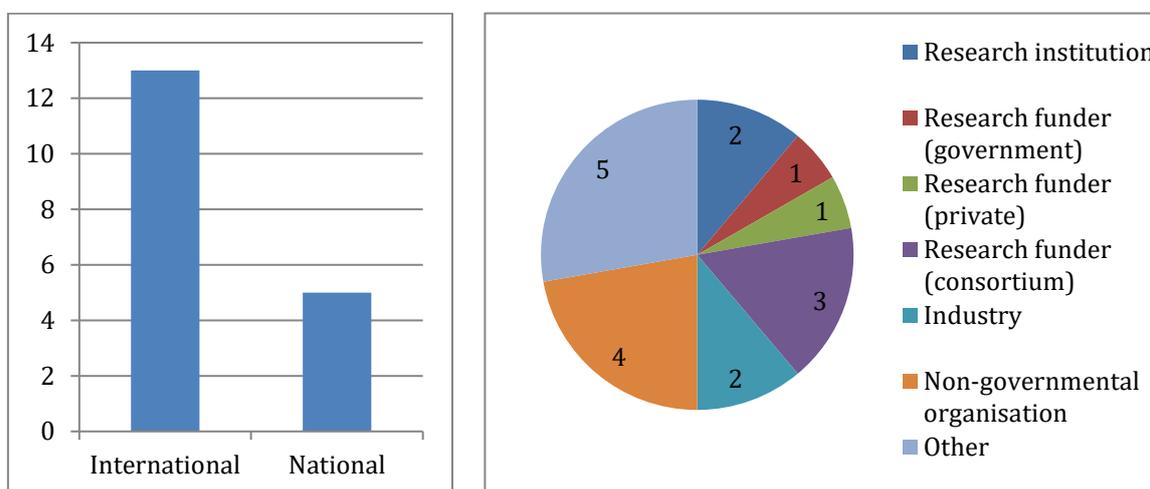
This survey was available between 21 June and 15 August 2018 on the website to all interested parties. In addition, the Interim Board of the Global AMR R&D Hub had invited a selected set of stakeholder organisations to participate in the survey. Respondents had been assured that all data would be handled anonymously.

In addition to the reply to the survey, two longer documents with comments have been submitted to the Secretariat. The input will be taken into consideration by the Global AMR R&D Hub.

#### PARTICIPANT INFORMATION

Total number of participants: **18**

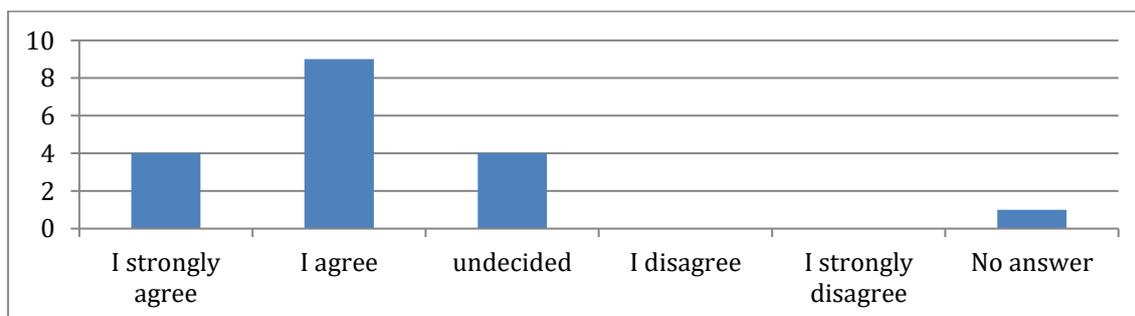
Please indicate which **type of organisation** you belong to (select the most applicable option):



### ***Provisional Work Plan 2018-2021: lines of activities***

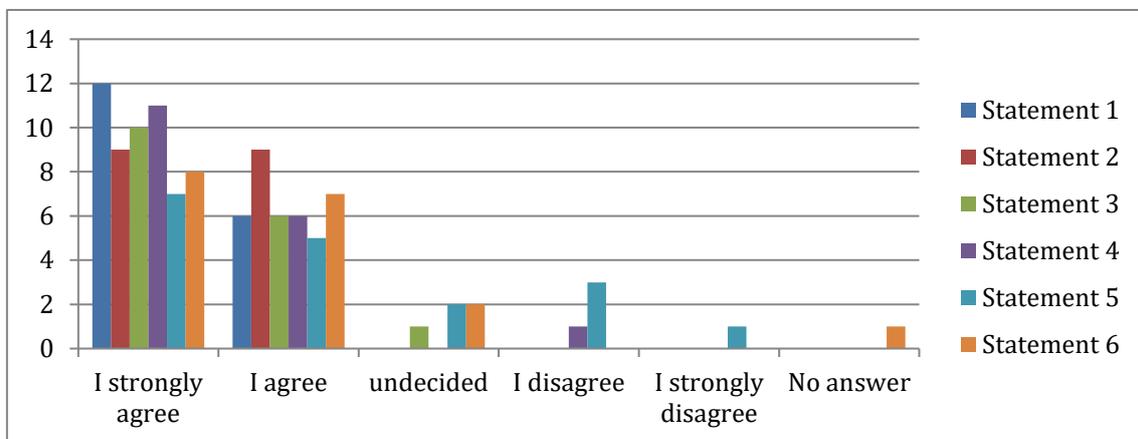
#### ***1 Development of a Dynamic Dashboard***

The approach of establishing a **Dynamic Dashboard** as described in the Provisional Work Plan 2018-21 is an appropriate first step to reach the aims of the GLOBAL AMR R&D HUB.



Please indicate the level of your agreement concerning the following **statements**, all relating to the Dynamic Dashboard:

1. High-level **information on current initiatives and funding flows** in the field of AMR R&D is important
2. Information on the **complete chain of research and development** is important
3. Information on **new antimicrobials, diagnostics, and prevention** measures/technologies including vaccines is important
4. It is important to include **push and pull incentives**
5. The Dynamic Dashboard should initially **focus on the pipeline of new products against human bacterial infections**
6. The Dynamic Dashboard should reflect the **One Health** approach in a **long-term** perspective

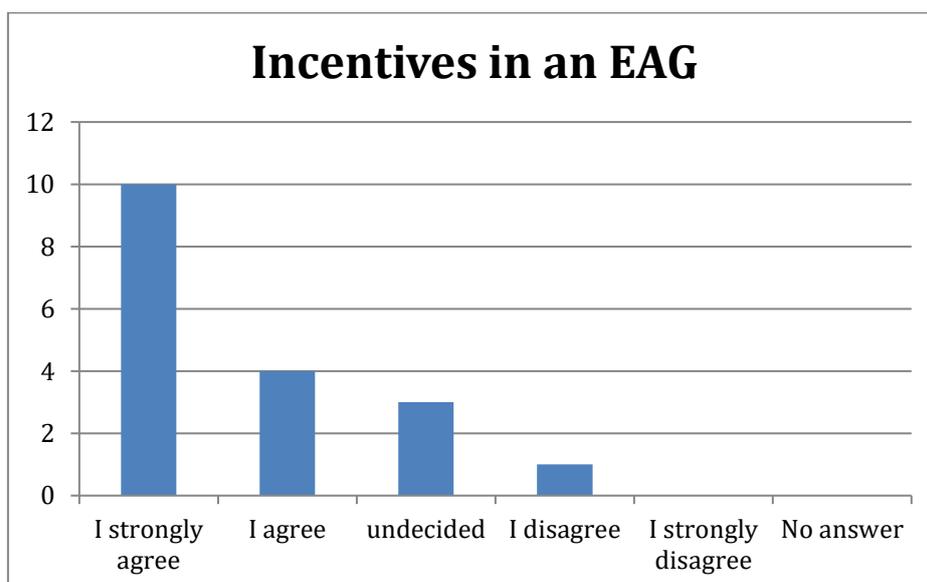


Are there any important **items missing** regarding the content of the Dynamic Dashboard?

Working with the validated data sources (funders) on consistent definitions so all data is comparable.
Review of ways to mobilize pooled/new funding/new sources of funds for global health priorities:e.g. social impact bonds, development banks. "Quick-win funding areas": repurposing existing tools.
To include the discussion on Intellectual property, high cost and access (De-linkage model). Include promotion of local production (generics, new formulation of existing products.
I think that the dynamic dashboard should prioritise issues around pull incentives as this is urgent and the absence of progress can impact investment in many areas
As it is important to have a meta mapping, it might seem that the dashboard could duplicate the efforts of PEW, WHO pipeline and current pre-clinical analysis and the JPIAMR research funding mapping.
The dynamic dashboard should reflect the One Health approach from the beginning and not in a long-term perspective
Danger to start only on human side. Be more inclusive on the areas for which R&D/investments are needed. Success relies on all countries willingness to report to the HUB
It must identify gaps in terms of burden of AMR-related incidence/deaths vs levels of investment. E.g. drug-resistant TB as the main cause of AMR related deaths vs its prioritisation in AMR initiatives
Development of new diagnostics and prevention measures is equally important to development of new antibacterials. Suggestion for integrated approach that includes animal & environmental health
A specific issue to address is pooled or collaborative funding (and who works together on funding research) especially globally.
For TB, Treatment Action Group has been gathering TB funding flows for the last 10yrs. Working closely with them will allow the TB funding flows to be easily incorporated into the Dynamic dashboard.

## 2 Other specific topics of interest

The topic of **incentives** has a high priority for the GLOBAL AMR R&D HUB and must therefore be discussed **in an Expert Advisory Group**. To what extent do you agree with this statement?



Which **specific question** should be addressed by this **first Expert Advisory Group**?

1. Identify the largest & most important data gaps, to help set priorities 2. Include human behaviors that affect AMR 3. Consensus on pull incentives
Review & recommend ways to mobilize new funding, e.g. pay-to-play, social impact bonds, development banks + funding: cash, in-kind from new countries
Addressing market failure for the development of treatment for human bacterial infections, such as tuberculosis
how could we implement, as a pilot, a case study of a pull incentive mechanism
Investigate further current proposals of pull incentives
Incentives to reduce antibiotic overuse should be addressed with the same urgency than those dealing with the development of new drugs and diagnostics
Not clear whether this HUB will both track programs and formulate policy. Which is the major focus?
Should innovation be focused just on drug R&D + other health technologies, or also innovation of practice and stewardship for both humans and animals?
This should explore existing mechanisms which use pull incentives and models in development which propose pull incentives e.g. the Life Prize for TB
How to achieve global coordination of pull incentives to ensure the economic feasibility of the development of novel antibiotics.
Criteria and conditions that are needed for an incentive to truly work (reliability, long term focus, access criteria for receiving incentives, etc)
Appropriate placement of push/pull incentives for R&D bottlenecks, individual pathogen approach. Ensuring access, including IP management & transparency
How to reconcile the need to recoup R&D investment with the need for affordability, taking account of developing countries' needs.
Which kind of incentives are suitable for which regions? How can they be implemented?

Which **expertise** will be needed for this specific group?

1. Data-driven research funders 2. Social scientists as well 3. Fast consensus process with leaders from past pull incentives reports
Funders, development banks, HTA, regulators; financial public interest
The group should include product development partnerships, researchers and academics, pharmaceutical companies, health policy makers, civil society
People engaged in access to medicines policies and right to health in LMIC. Key local stakeholders in countries with weak policies on AMR
health economists, clinicians, national health authorities, AMR experts, pharma industry, regulators
Regulatory, economic/finance governmental departments, industry
Pharmaco epidemiologists, economists, microbiologists.
By a group of experts that have no economic interest related to the incentives debate, steered by the public (health) interest and priorities.
This will need economic experts and researchers/developers currently using innovative finance mechanisms
National and international funders from both the public and private sectors, academia, industry, regulatory agencies, governments.
This requires both industry and government but maybe most important should draw from experienced players in public-private partnerships like PDPs
Access to medicine Civil society groups Product developers including PDP's in the key areas - GARDP, TB Alliance, FIND, TBVI/Aeras Economists
Knowledge of pharmaceutical R&D, private and public sector investment priorities, venture capital considerations, developing countries
Regulatory, economic, public health, commercial (industry) experts

Name one **additional topic** that the HUB should also work on with an **Expert Advisory Group**:

Your point 3 seemed under-developed, but pull incentives are very important. Also: how many large companies are left with active external R&D for AMR
Review and recommend most effective ways of ensuring collaboration of existing and new initiatives to maximise impact of existing/new resources
Regimen development in order to effectively treat drug resistant diseases such as tuberculosis, and other infections that require combination therapy
De-linkage model
global coordination of AMR R&D activities
The qualitative and quantitative role of the environment in the development of AMR and the means to fight it
Discussion on sustainability of HUB activities and inclusive of LMIC interests. How to ensure close collab. w/ WHO, Framework Dev&Steward and GAP M&E.
TB, the main cause of AMR deaths and requiring a combination of drugs, should be looked at as a pathfinder for R&D for other resistant infections
Novel diagnostics, prevention measures, alternative treatments, Financially disincentivising all actors involved in the sale of antibiotics
Creating international crossborder collaborative funding mechanisms. No success of the Hub without creating collaboration. Coordination is NOT enough
How to ensure all data & Intellectual property in areas of work of the AMR Hub, generated by public funding is made available for further development
There appear to be untapped resources with non-traditional investors e.g. pension funds, health (re-)insurers, family foundations.
How to strengthen basic and clinical research?

Are **important activities missing** in the Provisional **Work Plan 2018-2021**? If so, please specify maximum 3 activities in order of priority:

1<sup>st</sup> priority

Large companies exiting
Identify potential new funders, sources of funding, recruitment strategies
Expanding membership of the hub
De-linkage model
Holistic Strategy including vaccines, anti-microbials, antibodies and alternate interventions
Advocacy
One health
Map of programs
Set target product profiles ensuring affordable access, sustainable production, and adaptability to resource-limited settings of health technologies addressing AMR
Tuberculosis
Ensuring broad global membership especially from BRICS countries
Better inclusion of key countries including the BRICS
Identify non-traditional impact investors (see above)

2<sup>nd</sup> priority

Immediate plans for pull incentives
Building research networks including clinical trial networks that can integrate drug and diagnostic development
Inclusion of other stakeholders in the work of the hub, such as civil society and other non-profits
Local production
coordination of work on microbiome and AMR
assessment of environmental impact
Funding needs
Establish priority-setting framework that goes beyond big companies, focuses investments on scientific bottlenecks for drug discovery, targets incentives to research institutions/firms willing to take risks in R&D, support sustainable innovation ecosystem
Developing a list of key diseases and investment needs for AMR product development
How to build on work done in other areas, particularly TB
Discuss incentives to encourage continued production of old antibiotics and prevent stockouts

3<sup>rd</sup> priority

AMR as strategic preparedness - long lead time to respond if we allow the industrial infrastructure to decay
On R&D aspects of national AMR action plans, give guidance & suggest/facilitate/connect countries to ongoing/new initiatives
Alignment with the existing initiatives relevant to AMR and R&D
Use of Artificial intelligence and big data to fight AMR
Develop a broad and inclusive strategy on how to position the work of the HUB in line with WHO Global Framework on Development & Stewardship, and GAP M&E approach.
Consider developing country need for access / affordability

***Annex I: Provisional Work Plan as it had been published 20 June on the [www.globalamrhub.org](http://www.globalamrhub.org) website***

## **GLOBAL AMR R&D HUB: Provisional Work Plan 2018-2021**

### Vision

The main goal of the GLOBAL AMR R&D HUB is to promote high-level coordination among governments and upstream funders from different world regions, in order to better align national and international efforts in the fight against AMR.

For that, two main lines of activities have been identified for the work plan, namely:

(1) building on existing mapping exercises and other relevant information in form of a “meta-mapping”, to develop a close to real-time Dynamic Dashboard providing information and analysis at a high level on current R&D related global or regional or national initiatives, R&D funding flows and R&D activities in the field of AMR; and

(2) to define the main operational activities and procedures for the GLOBAL AMR R&D HUB.

This work plan covers a timeframe of three years of operation, focussing mainly on concrete operational activities for the first year. The work plan may be adapted in a dynamic way, in order to respond to the rapidly evolving field of antimicrobial resistance. The work plan has been established in consultation with a selected set of stakeholders.

## **3 Development of a Dynamic Dashboard**

---

### **Rationale**

The central deliverable of the GLOBAL AMR R&D HUB will be a close to real-time Dynamic Dashboard providing information and analysis at a high level on current initiatives, funding flows and activities in the field of AMR R&D. The information will be analysed and shall inform policy makers in their decision making on strategic investments and actions in AMR R&D.

This information will be publicly available. A prerequisite for achieving this goal is to have a full picture of the AMR R&D landscape, including all available mappings shared by other contributing organisations (such as WHO) actively working to combat AMR.

In a long-term perspective, the Dynamic Dashboard should reflect the One Health approach and should comprise information relating to human and animal health as well as environmental aspects. This should be further developed in cooperation with other relevant stakeholders such as FAO, OIE and UNEP.

It should comprise information on the complete chain of research and development for new antimicrobials, diagnostics, and prevention measures/technologies including vaccines, and include push and pull incentives. In order to be able to show early success and to address a high medical need, the Dynamic Dashboard will concentrate its initial focus on the pipeline of new products against human bacterial infections. Once the Dynamic Dashboard is established, it will be extended in order to address the complete scope of the GLOBAL AMR R&D HUB. It will be a continuous task to keep the Dynamic Dashboard up to date and establish and maintain the relationship with organisations that are the source of various mapping data, in order to keep the information current and accurate without duplicating efforts in mapping data collection and management.

The Dynamic Dashboard will use and link to existing sources of information such as the WHO global observatory on health R&D and the R&D pipeline data contained therein.

By gathering information on funding flows, the Hub will help inform the monitoring of the Global Action Plan on AMR.

**Activities envisaged**

Item	Timeline
<b>Content of the Dynamic Dashboard</b>	
Develop a roadmap on building the form and content of the Dynamic Dashboard (which information is readily available, which information is missing, where to get it, how to fill the gaps, who to consult to obtain data already mapped, which information to start with, how to continue in order to eventually fulfil the One Health approach).	Year 1
Start with information on, and data from, current mapping exercises on initiatives and current activities for new diagnostics, treatments and prevention measures for WHO priority pathogens and tuberculosis.	Years 1-2
Collect (and prioritize) further topics to be included in the Dynamic Dashboard.	Years 2-3
<b>Technical aspects</b>	
How to best link to existing data sources and databases such as the WHO global health R&D Observatory.	Year 1
Plan and prepare a database to store various kinds of information feeding into the Dynamic Dashboard, including both existing and new data.	Year 1
<b>Formal steps to collect information and derive options for political action</b>	
Retrieve information on current activities and needs in the first area of AMR R&D pre-specified in the above-mentioned roadmap.	Year 1
Request information on R&D funding and activities from Hub members.	Year 1
Analyse gathered information to derive options for political action.	Year 1-2
Publish first information, interim analysis and/or progress report.	Year 1
Publish information and analyses on a Dynamic Dashboard.	Year 2
Feed results of the analysis back to Hub members and other stakeholders.	Year 2

## 4 Operational activities

### **Rationale**

A lean secretariat will be set up in order to deliver the work of the GLOBAL AMR R&D HUB. The general tasks of the Secretariat include, but are not limited to, the organisation of the Board Meetings, the set-up and support of Expert Advisory Groups and the interaction with stakeholders. In addition to that, concrete operational activities are necessary steps to ensure the working capacity of the Hub and are foreseen to be the most intense during the first year.

### **Activities envisaged**

Item	Timeline
Recruitment of further Secretariat staff with requested technical expertise.	Year 1
Finalisation of the Terms of Reference for the Hub	Year 1
Development of Rules of Procedure of the Hub as an addendum to the Terms of Reference.	Year 1
Finalisation of the Work Plan.	Year 1
Development of a strategy for interaction and formalize cooperation with existing funding and implementing initiatives.	Year 1
Development of a public relations strategy and a communication plan.	Years 1-2
Public relations activities such as presentation of the GLOBAL AMR R&D HUB and its achievements at international meetings and conferences.	Years 1-3
Advocacy for the GLOBAL AMR R&D HUB and the importance of the topic AMR itself.	Years 1-3

## 5 Other specific topics of interest

### **Rationale**

Additionally, the GLOBAL AMR R&D HUB will discuss specific topics of interest to its members by engaging experts in ad-hoc Expert Advisory Groups.

### **Activities envisaged**

Item	Timeline
Understanding incentives: discussing the whole range of R&D incentives and putative gaps in the incentive toolbox	Year 1