Introduction for how to access and use the Dynamic Dashboard by Elmar Nimmesgern, Secretariat Lead Global AMR R&D Hub

TABLE OF CONTENTS

INTRODUCTION

Welcome to the Dynamic Dashboard User Guide.

The user guide is designed to help people to use and get the most out of the Dynamic Dashboard. It will provide an explanation of the objective, key elements and visualisations for each of the reports available in the Dynamic Dashboard. In addition, a detailed explanation on how to use tools, modes and filters of the Dynamic Dashboard.

Guidance is provided in the form of text and screenshots.

What is the Dynamic Dashboard

The Dynamic Dashboard is the global knowledge centre on AMR R&D activities and investments across the One Health continuum. It is being regularly updated with new information. The Dynamic Dashboard is comprised of three complementary galleries: the Investment Gallery, the Pipeline Gallery and the Push and Pull Incentives Gallery.

Investment Gallery

The Investment Gallery presents basic and applied research projects and/or investments from publicly and privately funded R&D throughout the research and innovation value chain on treatment, preventive measures, diagnostic products, surveillance, policy and interventions (such as stewardship) across all One Health sectors.

Project and/or investment information are being collected in a staged approach. Currently, R&D relevant to only human antibiotic resistant bacterial infections and all relevant animal health infections funded by public or philanthropic funders is presented in the Dynamic Dashboard.

The Dynamic Dashboard will be evolving over time to broader geographical scope, more pathogens and to all One Health Sectors. The user guide will be updated to reflect this evolution.

[Return to top of page.](#)
LANDING PAGE

Objective

The landing page is the gateway to access all information contained in the Dynamic Dashboard.

Key elements of the page

Entry points

There are three access points into the Dynamic Dashboard called galleries. These represent research inputs and activities (investment), product-specific research outputs (pipeline) and ways in which we are intervening in product markets to improve their functioning (push and pull incentives), as below:
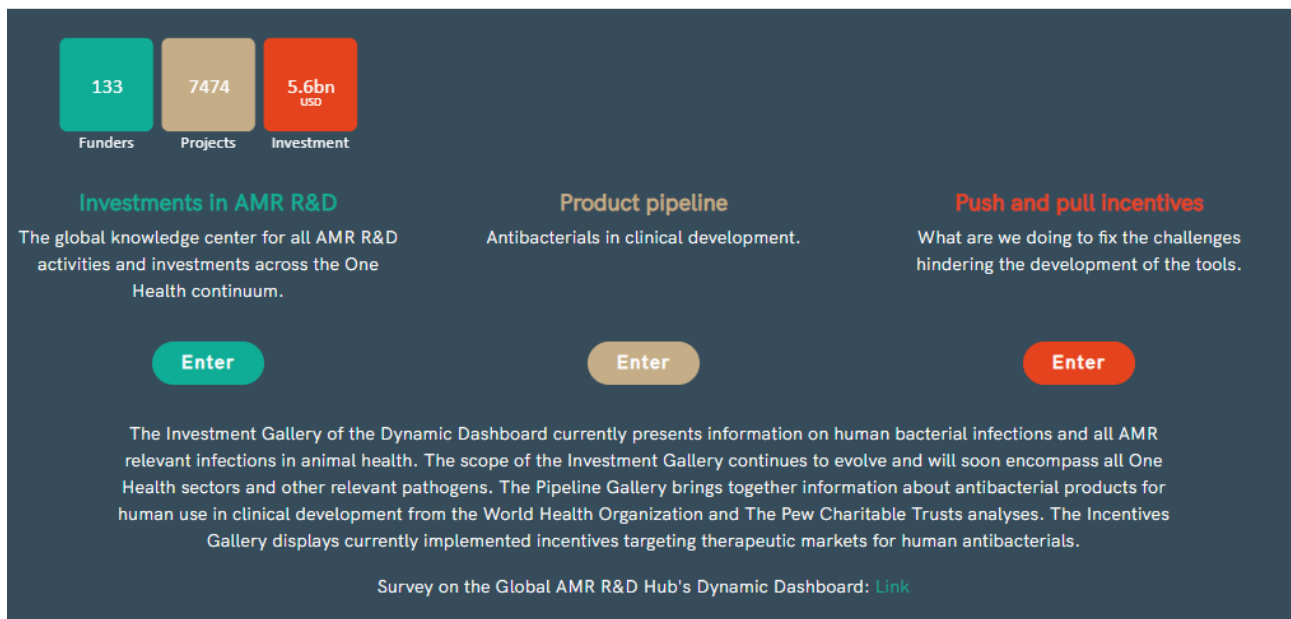
1. Investments in AMR R&D
2. Product pipelines
3. Push and pull incentives

Select to enter the gallery of interest by clicking the Enter button. You will be directed to the relevant interactive high-level summary.

Above the Investment in AMR R&D gallery, the four boxes provide a count of the total number of funders, projects, investments and countries currently collected in the Investment in AMR R&D gallery. The boxes are not entry points or interactive.
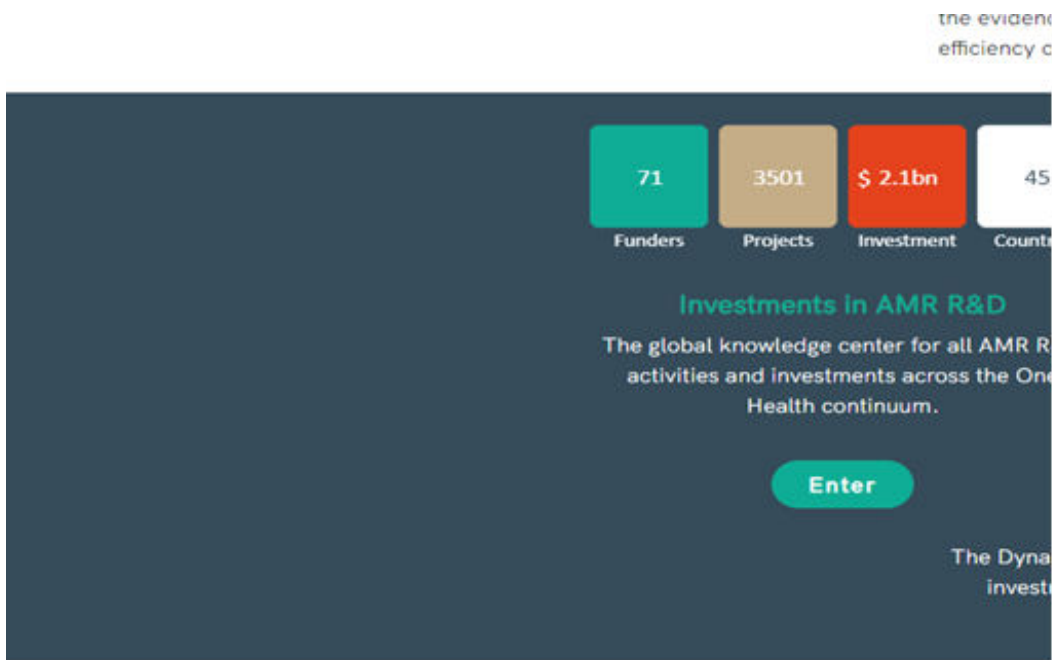

Sign in

On the top right of the Dynamic Dashboard you can find links to supporting documentation including the Dynamic Dashboard Library and Definitions and a Sign In button. The Sign In option is currently reserved for administrative users and will at some later stage allow user logins that will give access to additional features.

The Global AMR R&D Hub's webpage

The link at the bottom left hand side of the page will take you the Global AMR R&D Hub's website.

THE FRAME

Objective

The Frame allows you to navigate directly to the different galleries:

1. Investments in AMR R&D
2. Product pipelines - Antibacterials in Clinical Development
3. Push and pull incentives - Incentives for Antibiotic R&D

The Frame remains the same for all galleries and reports in the Dynamic Dashboard.

Investment Gallery

The frame for the Investment Gallery enables you to directly navigate to a specific report or One Health sector of interest. Reports are grouped under sectors which can be expanded by clicking the arrow. The individual sector reports will only show projects/investments related to that sector. The Investment into AMR R&D report and the All sectors reports will display information from all sectors.

Currently the Countries and Funder report under All sectors and the Animal and Human reports are available.
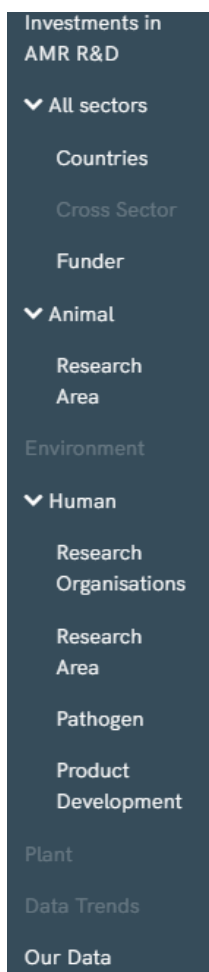
The icons at the top left hand side of the Frame provide direct links to:

- search the data in the Dynamic Dashboard
- contact the Global AMR R&D Hub Secretariat
- the definitions used for the categories
- the supporting documents to help you understand the information, and
- a sign in option (noting the the sign in area is currently not active).


Search function

The search function provides you with the option to export all data contained in Dynamic Dashboard, where approval to release has been obtained. Any projects/investments that have not been approved for release will not be displayed here, so the total number of projects may differ compared to the interactive reports.

Projects (6,175)

**Export** ▼ Filter   Full text search
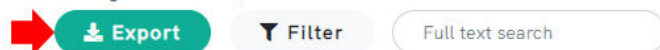
If you are interested in only a certain area or term contained in the Dynamic Dashboard it is possible to do a key word 'Full text search' of the titles of the projects.

Projects (6,175)

Project titles only

Export ▼ Filter   Full text search
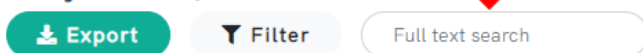
It is also possible to perform a key word search of the abstracts. To do this, select the 'Filter' option and in the first box select Abstract / Objective. In the next box select 'contains' and in the third box type your search word. Then click Save. The example below has used 'Children' as the search term.

Filter By Properties   ☒

Abstract / Objective ▼   contains ▼   children

Add row   **Save**
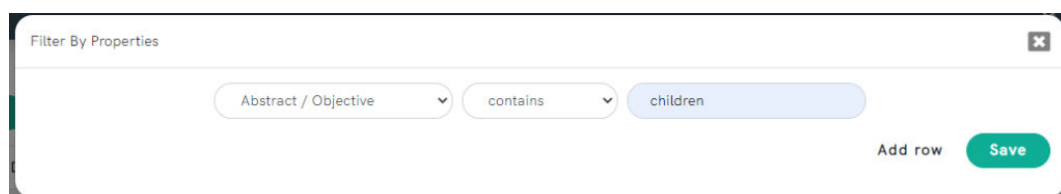
You can also search for projects in a specific predetermined category. To do this, select the 'Filter' option and in the first box select 'Categories'. In the next box select 'contains' and in the third box type your search word. The categories available to search are:

- Sector - currently just 'human' and 'not specified'
- Infectious agent. This is currently only bacteria and the list of individual bacteria and other groupings provided here.
- Research area (defined and listed here) which include:
  o Basic research
  o Therapeutics
  o Diagnostics
  o Preventives
  o Promotants
  o Other products
  o Operational
  o Policy
  o Capacity building
- Research area subcategories which include:
  o Fundamental
  o Towards a product
  o Discovery
  o Development
  o Approval
  o Post Approval
  o Vaccines
  o Other preventives

- Disease groupings which include:
  - Bloodstream infections
  - Bone and joint infections
  - Gastrointestinal tract infections
  - Infections in pregnancy during childbirth or in the puerperium period
  - Nervous and sensory system infections
  - Respiratory tract infections
  - Sepsis
  - Sexually transmissible infections
  - Skin and soft tissue infections
  - Urinary tract infections.

INVESTMENTS IN AMR R&D HIGH LEVEL REPORT

Objective

The Investments into AMR R&D report provides a high-level summary of all the information contained in the Dynamic Dashboard. The report is designed for users to quickly see the AMR R&D activity (by either number of projects or investment) over the years, by priority level of bacteria, by the different research areas and also by location and number of funders. As with all reports in the Dynamic Dashboard it is interactive and users can explore the data with one click.

It will contain information from all One Health sectors, once available.

Key elements of the page

Parametres

Parameter options enable you to select how you want the information in the report displayed either by number of projects or total investments. The selected option will continue through all reports unless changed. Buttons in dark grey are selected. Click buttons to unselect or select.
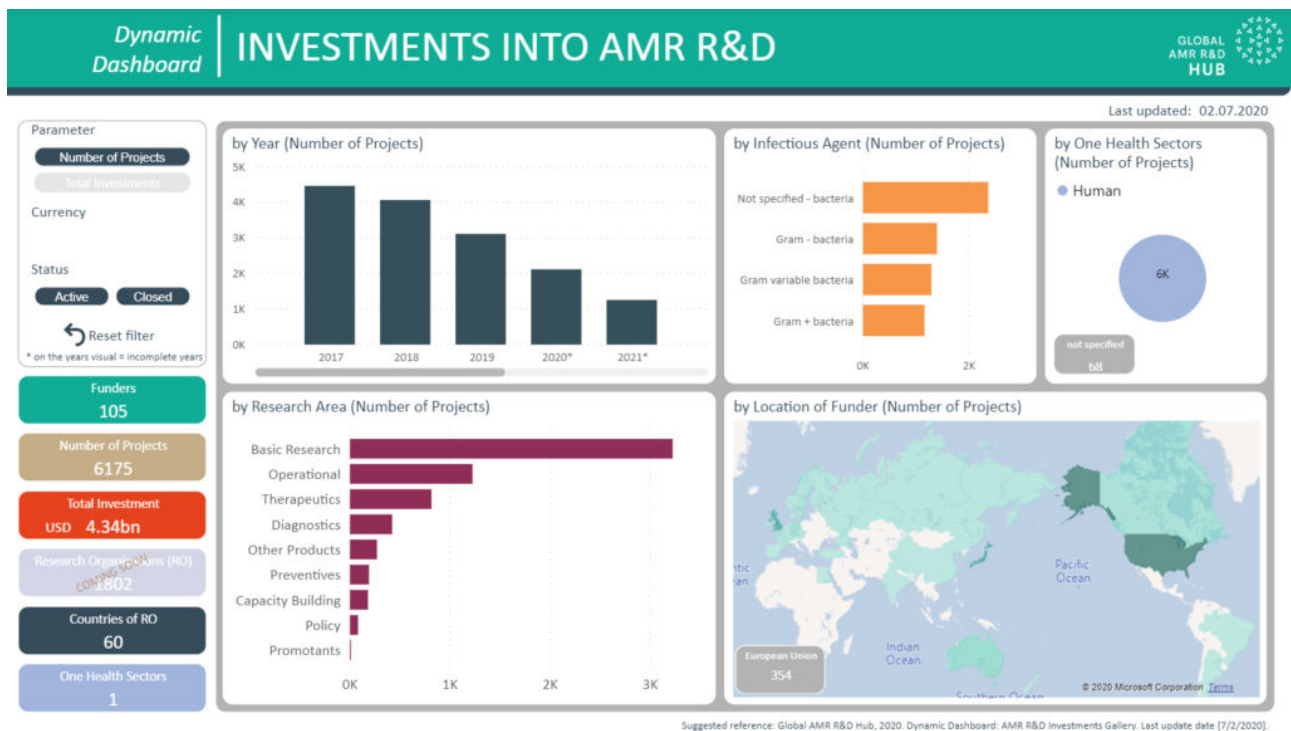
When total investments is selected, you have an option to change the currency (USD or €) and also to filter by the project status (active or closed). The visuals in the report are now displaying information by investments in selected currency.

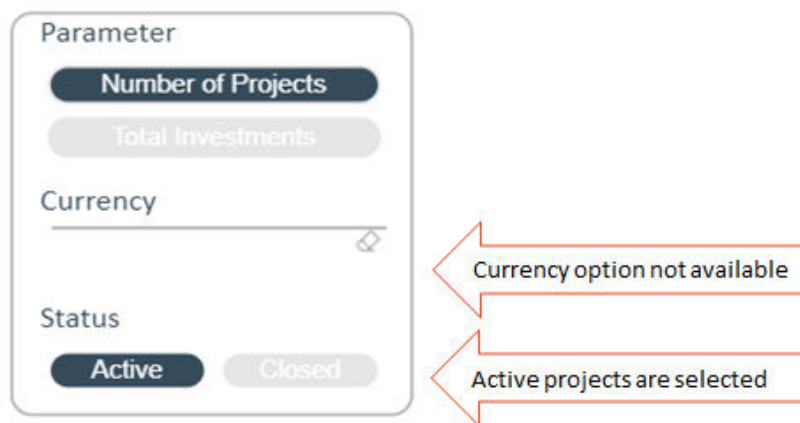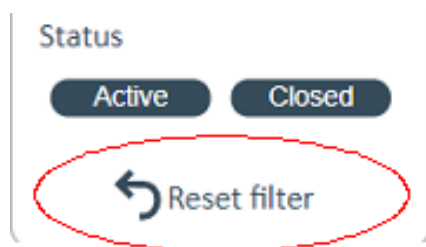When the number of projects is selected the option to change currency is not available. The visuals in the report are now displaying information by the number of projects by the selected project status.

Reset filter button

This button will reset al filters and selections applied in the report.


Boxes

Boxes are an element that are used throughout all reports. The boxes contain the total count of funders, countries, investment, projects, research organisations and One Health sectors. The values will change when filters are applied or selections are made on the visuals. The boxes are not interactive and will not change the visuals if clicked. The total investment amount in the boxes may not match the total investment provided in the visualisations in the report. This is because the boxes provide the investment for the whole project while the visualisations will split the budget when a project is categorized with multiple sectors, research areas, and/or R&D stages.

Visuals

The report presents five visuals of which four are interactive. Currently the One Health sectors visual is static.

As with all reports in the Dynamic Dashboard the visuals are interactive. Users can click a country of interest (the example shows the UK) and the visuals adjust to display information only for the selected country.
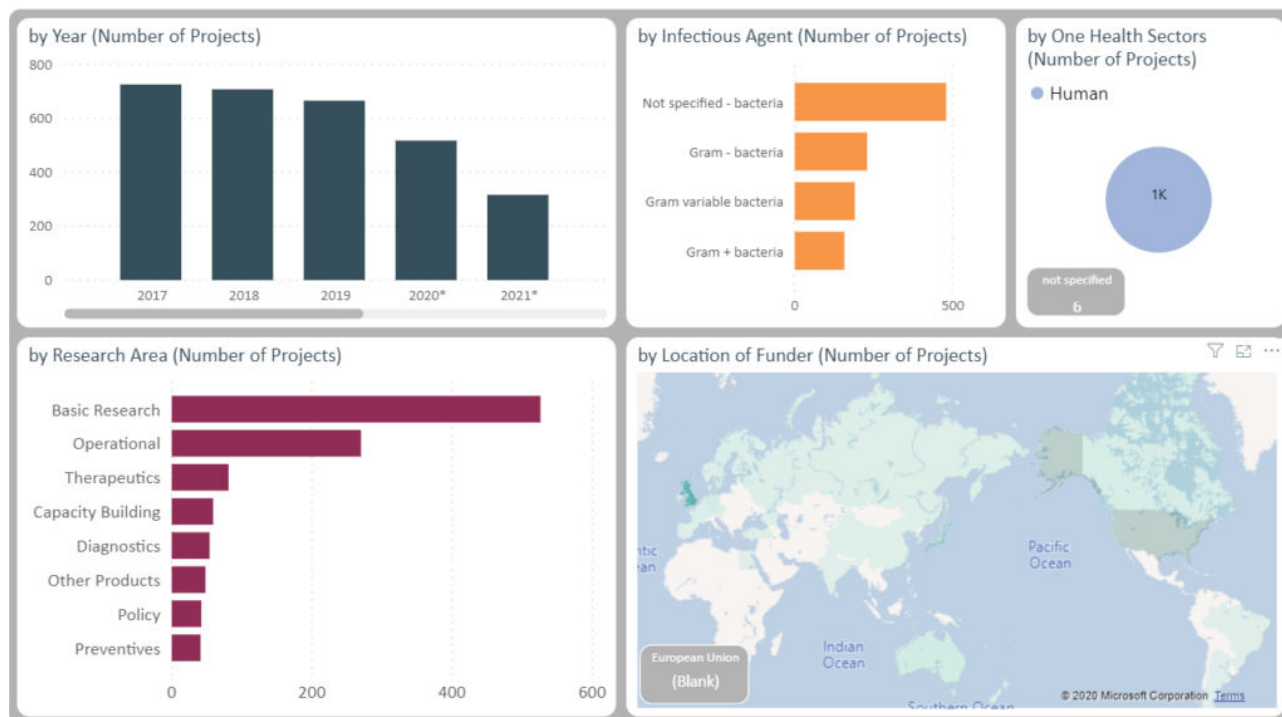
Users can click a specific year (the example shows 2020) and the visuals will adjust to display information only for the selected year.
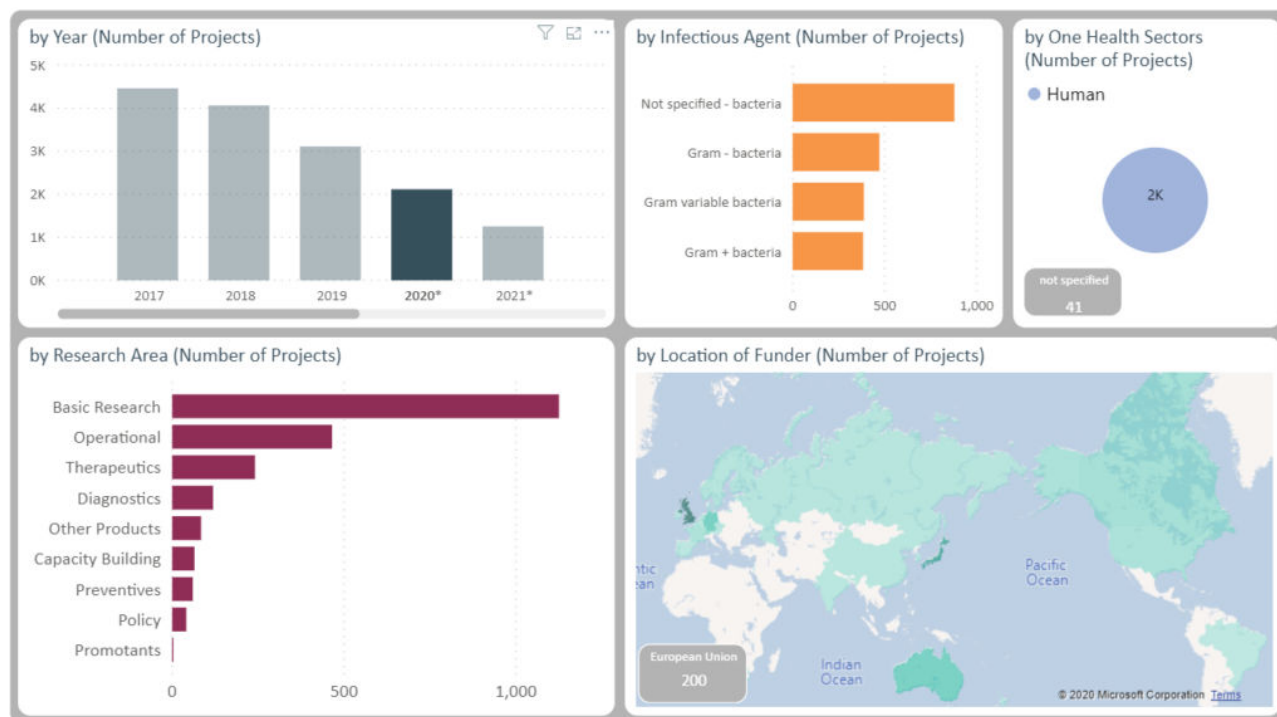
How to interact with the report

The [Reports 101](#) section provides more information on functionality and what the different icons or options do.

[Return to top of page.](#)
ALL SECTORS REPORTS
COUNTRIES REPORT

Objective

Explore the data by what is happening in different countries across all One Health sectors. See AMR R&D activities that are being funded by the selected country(ies) and also who is doing research in the selected country(ies) and where they are being funded from (country level only).
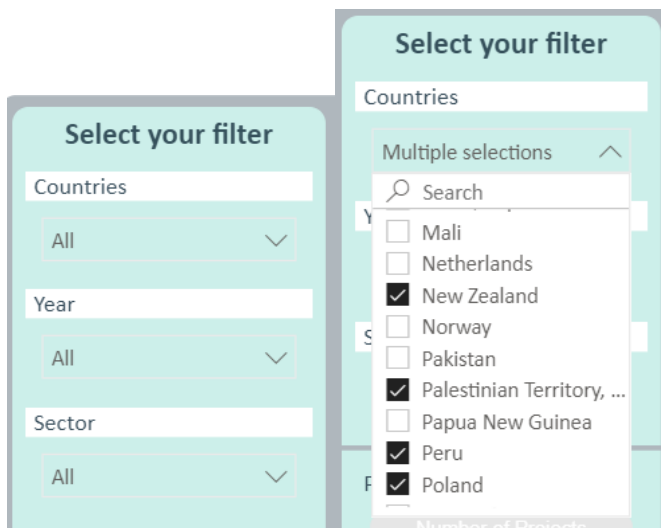
Key elements of the page

Parameters

For information on the parameters please see the [Investment in AMR R&D report](#) .

Filters

The different filters allow you to tailor the report to show information by a country(ies), by year and by One Health sector(s). You are able to make multiple selections for all filters.

Boxes

Boxes are an element that are used throughout all reports. The boxes contain the total count of funders, investment and projects. The values will change when filters are applied or selections are made on the visuals. The boxes are not interactive and will not change the visuals if clicked. The total investment amount in the boxes may not match the total investment provided in the visualisations in the report. This is because the boxes provide the investment for the whole project while the visualisations will split the budget when a project is categorized with multiple sectors, research areas, and/or R&D stages.

Visuals

The report presents six visuals, all of which are interactive except currently the One Health sectors visual.

When an individual country is selected in the filters (example is the United Kingdom) then all AMR R&D activity linked to that country is displayed in the visuals. This includes when the funder and research organisation is located in the selected country(ies).
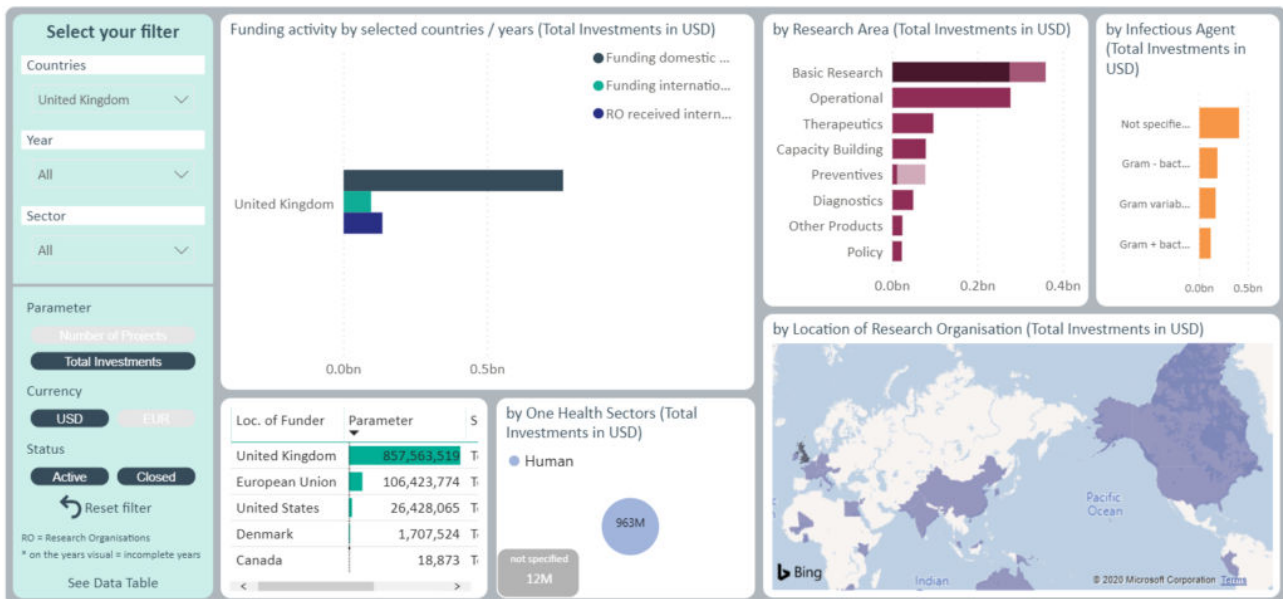
Funding activity by selected countries

This visual shows the AMR R&D activity happening in the selected country(ies) by showing what funders located in the selected country(ies) are funding (both domestically and internationally) and what international funders are funding within the selected country(ies).

The legend of the visual explained using the United Kingdom as an example:

1. Funding domestic RO (Research Organisation) - this is funding provided funders in the United Kingdom to research organisations located in the United Kingdom
2. Funding international RO - Funding provided by funders in the United Kingdom to research organisations located in other countries (the map will show you where these research organisations are located)
3. RO receiving international funding - Funding provided by funders in other countries to research organisations located in the United Kingdom (the table titled location of funder shows where these funders are located)
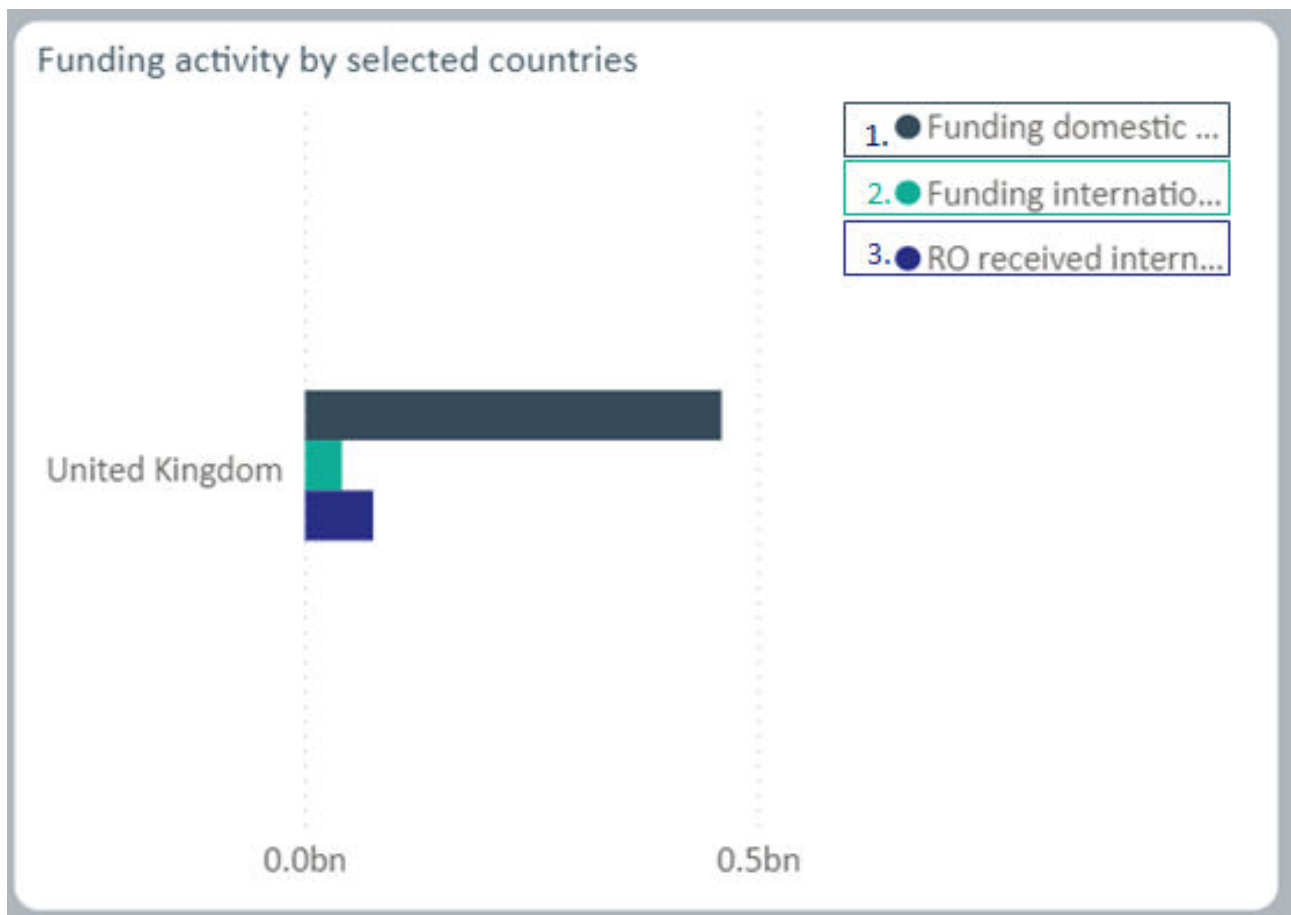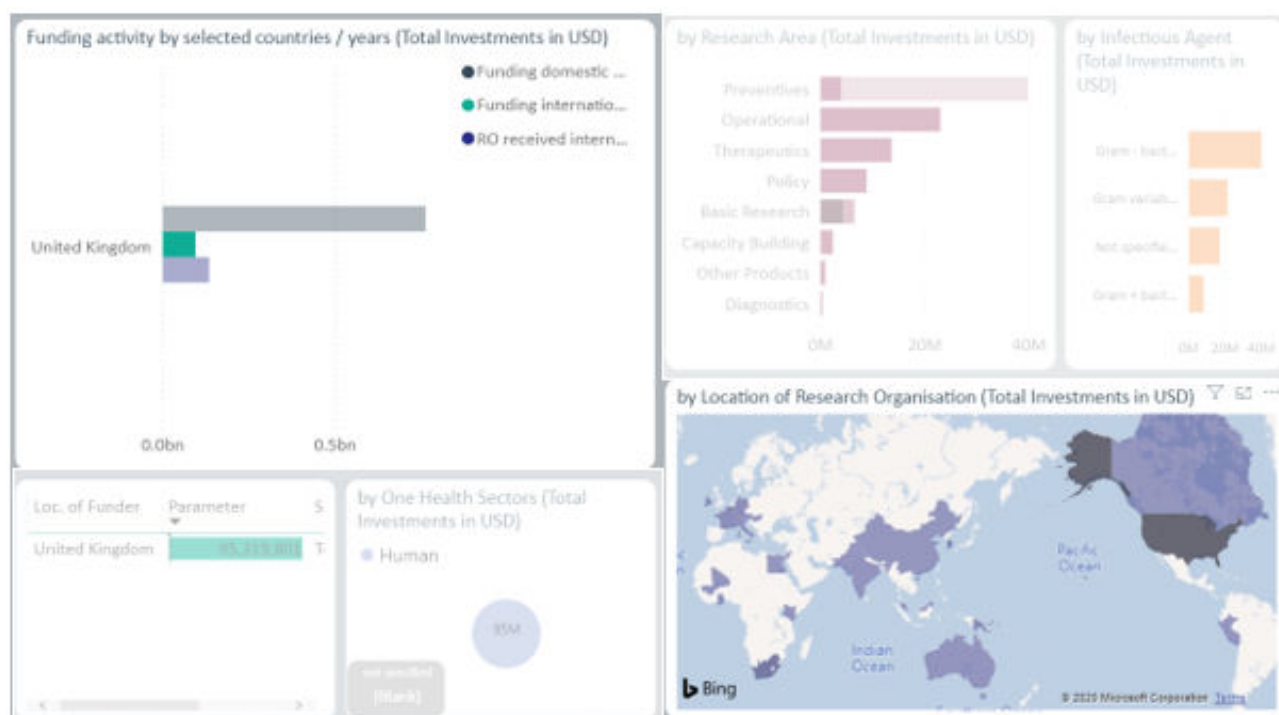
Location of Funder

This visual displays the country where the funder is located. Of note, it will show the location of the international funders who are funding Research Organisations (RO) in the selected country(ies). Still using the United Kingdom as an example, when RO received international funding is selected in the Funding activity by selected countries visual, the location of these international funders can be seen to be European Union, United States, Switzerland, Canada and Denmark.

Funding activity by selected countries

Legend:
- Funding domestic …
- Funding internatio…
- RO received intern…

United Kingdom

0.0bn   0.5bn

Location of Funder	Parameter ▼
European Union	50,958,472
United States	22,622,152
Denmark	1,500,000
Canada	3,750
Switzerland	0

By Location of Research Organisation

This visual displays the country where the research organisation is located. Of note, it will show the location of the research organisations that the selected country(ies) is funding internationally. Still using the United Kingdom as an example, when Funding International RO is selected in the Funding activity by selected countries visual is selected, the location of these research organisations can be seen to be a number of different countries including Ireland, South Africa, Switzerland, the United States. The full list of countries can be seen when selecting 'show as table' function on the map. For information on how to do this see the Reports 101 section.

The location of research organisations funded by the United Kingdom as displayed by 'show as table' function.

Location of Research Organisation	Parameter	Selected Parameter
United States	23,679,198	Total Investments in USD
Belgium	15,717,901	Total Investments in USD
South Africa	14,044,213	Total Investments in USD
Gambia	12,518,734	Total Investments in USD
Korea, Republic of	5,789,944	Total Investments in USD
Switzerland	4,146,003	Total Investments in USD
Papua New Guinea	3,945,079	Total Investments in USD
France	3,907,751	Total Investments in USD
Germany	3,454,413	Total Investments in USD
Italy	2,978,363	Total Investments in USD
Ireland	1,166,005	Total Investments in USD
Kenya	784,104	Total Investments in USD
Austria	641,457	Total Investments in USD
India	547,766	Total Investments in USD
Australia	505,856	Total Investments in USD
Pakistan	498,411	Total Investments in USD
Hungary	495,475	Total Investments in USD
Peru	220,517	Total Investments in USD
China	81,575	Total Investments in USD
Canada	66,160	Total Investments in USD
Mali	47,999	Total Investments in USD
Malaysia	36,018	Total Investments in USD
Ghana	28,033	Total Investments in USD
Egypt	9,461	Total Investments in USD
Palestinian Territory, Occupied	4,695	Total Investments in USD
Jordan	4,671	Total Investments in USD

Filtered by multiple countries

If multiple countries are selected in the filter, it is still possible to see the data for each country selected by clicking on the name of the country in the funding activity by selected countries visual.
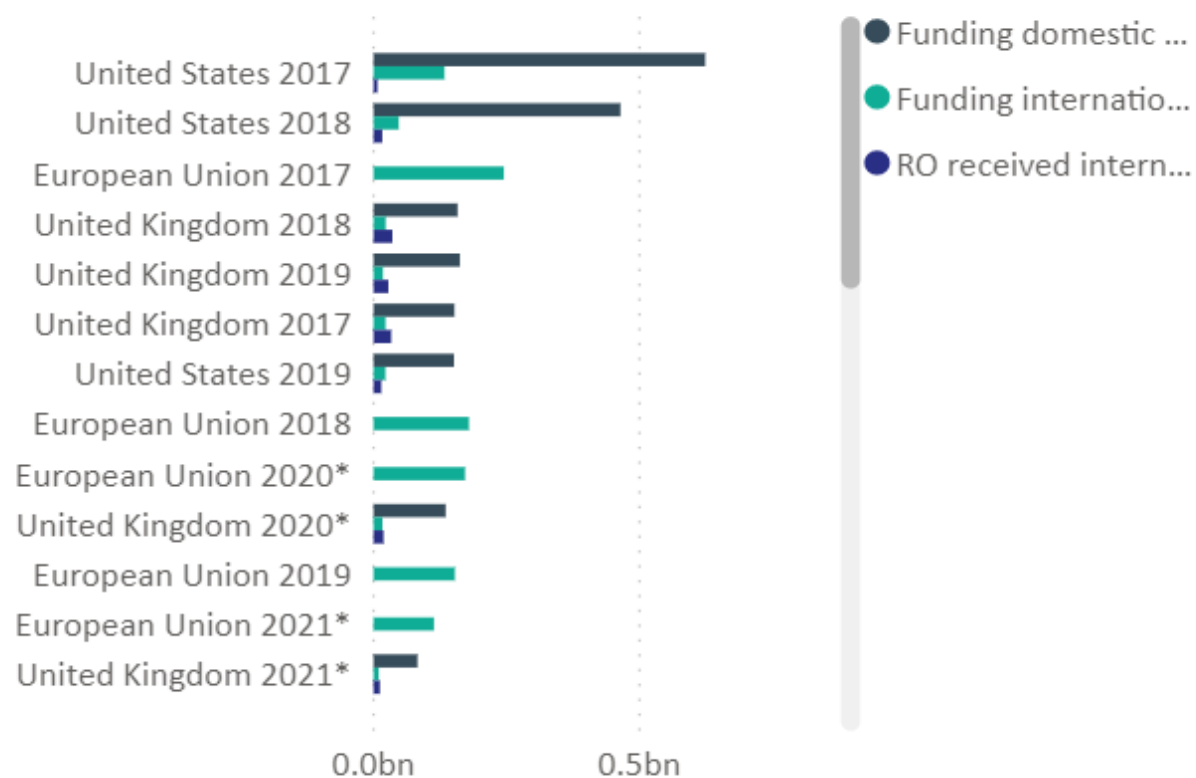
All visuals will then display information just for this country. The example below has selected United States.
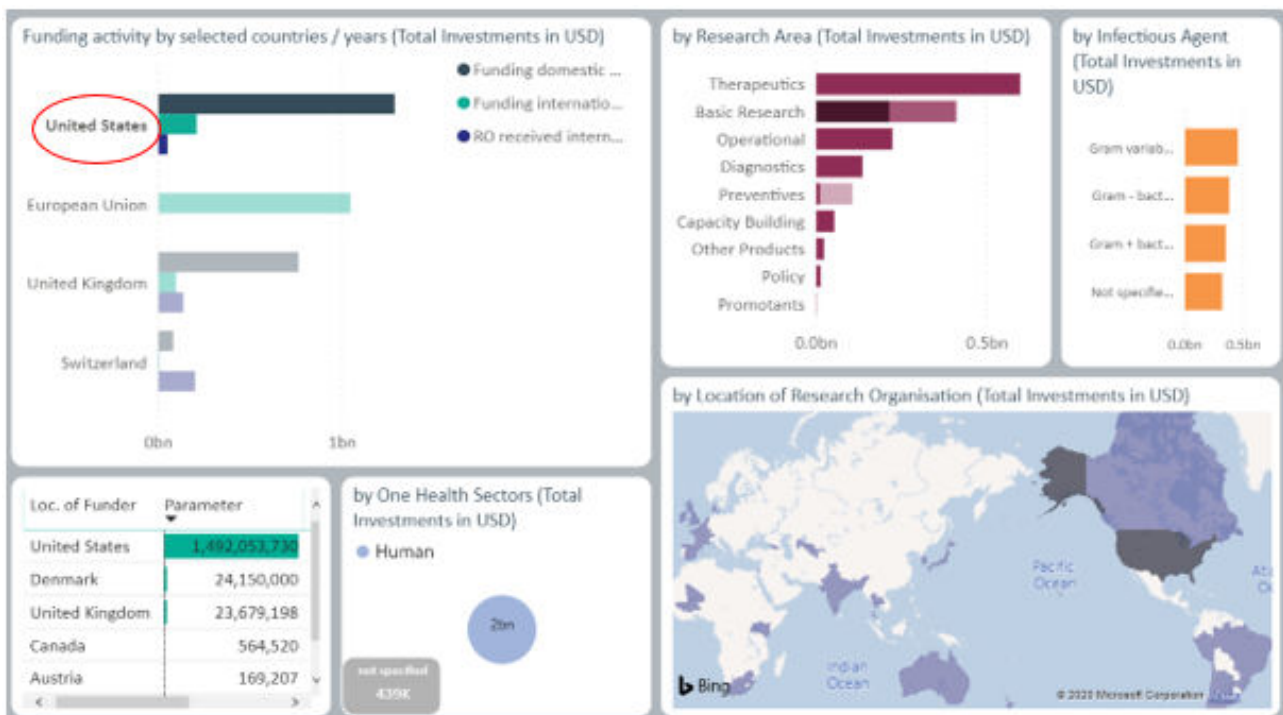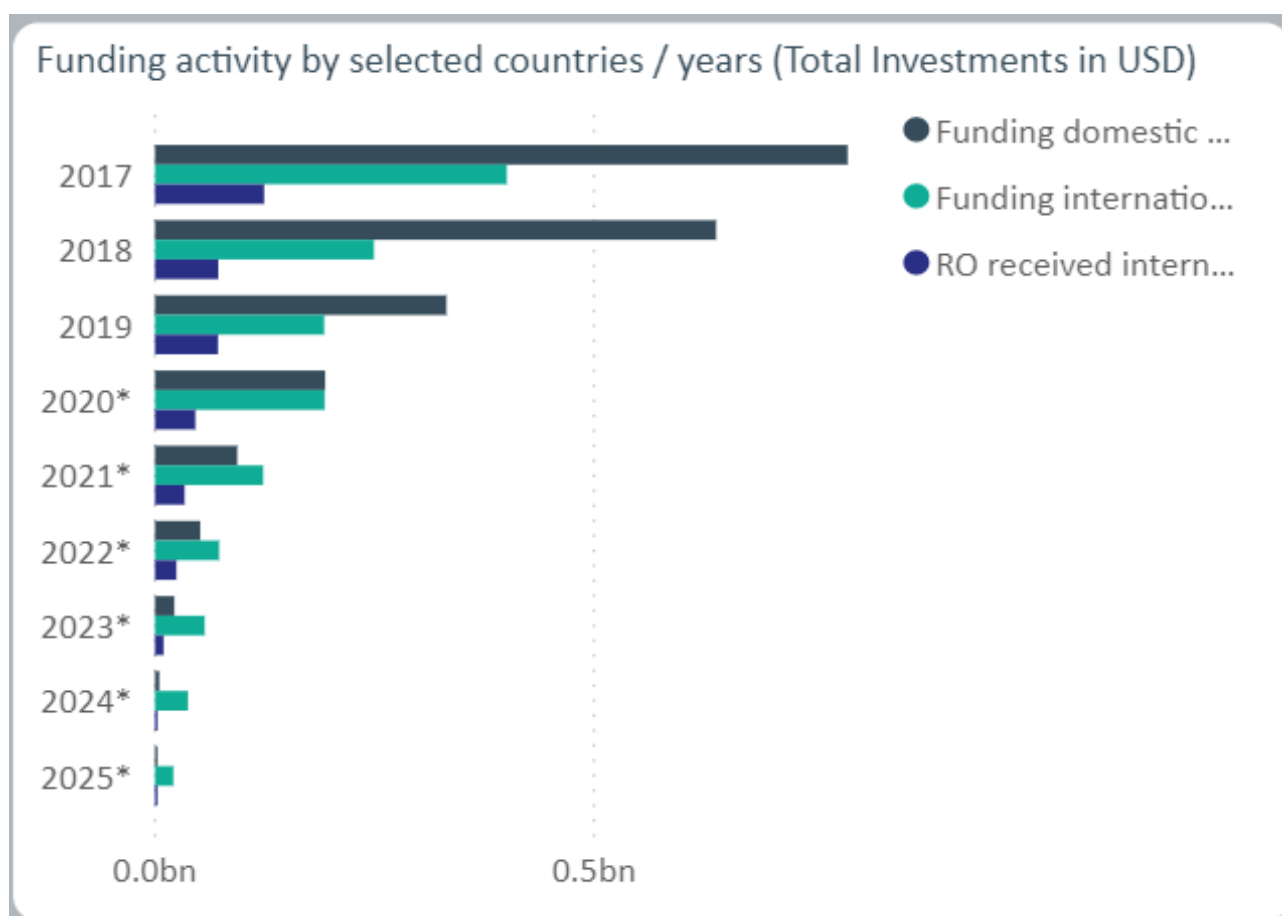

Using the same example, it is possible to drill down to see the funding amount either by:

1. country by year (hierarchy arrows), or
2. year in total (double down arrows)

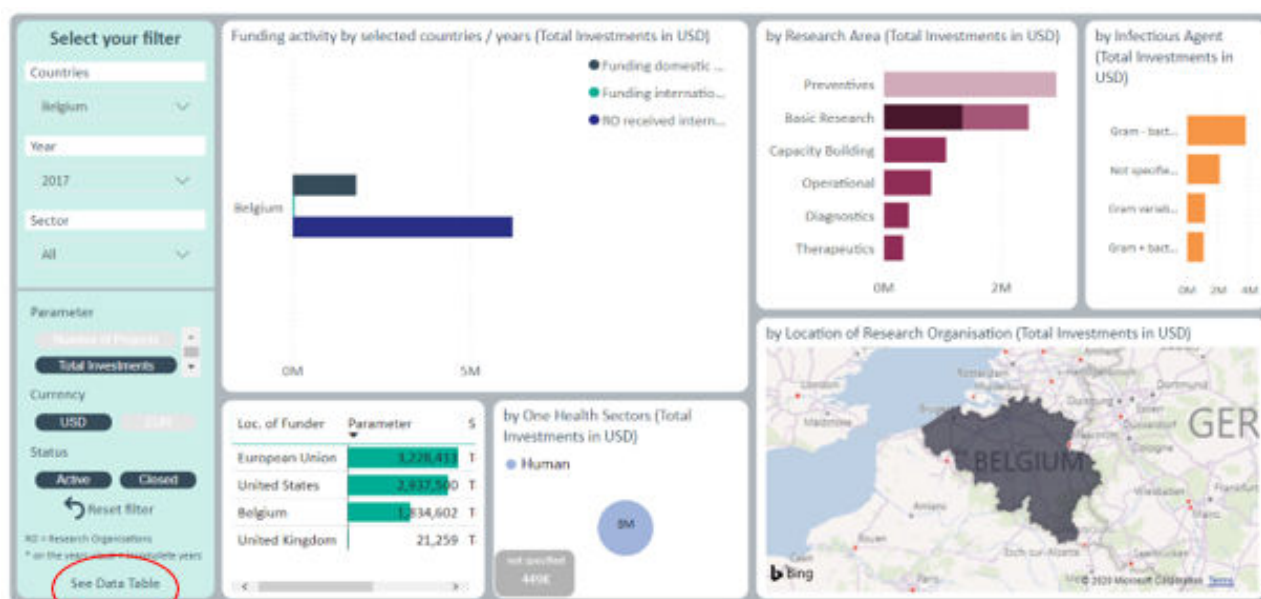# Funding activity by selected countries / years (Total Investments in USD)

Legend:
- Funding domestic ...
- Funding internatio...
- RO received intern...

Country / Year	
United States 2017	
United States 2018	
European Union 2017	
United Kingdom 2018	
United Kingdom 2019	
United Kingdom 2017	
United States 2019	
European Union 2018	
European Union 2020*	
United Kingdom 2020*	
European Union 2019	
European Union 2021*	
United Kingdom 2021*	

0.0bn   0.5bn

Funding activity by selected countries / years (Total Investments in USD)

By Research Area

Some projects will be categorised into multiple research areas. When this happens, the investment is split evenly across the research areas. For example, if a project is both capacity building and diagnostics then 50% if the investment will be allocated to each research area. However, the project number is not be split across the research areas. Please note that this total investment amount may not match the total investment figure reported in the box at the top of the report. This is because the box reports the investment for the entire project and does not split the amount if there a project is categorized into multiple research areas.

Underlying data

To see and download the project level information (where possible to release) for a report, you can click See Data Table. The example below has filtered for projects/investments from Belgium funders in 2017. The resulting data table provides the information for each of the 33 projects.

Select your filter

Countries
Belgium

Year
2017

Sector
All

Parameter
Number of Projects
Total Investments

Currency
USD

Status
Active   Closed

Reset filter

RO = Research Organisations
* on the vertical axis complete years

See Data Table

Funding activity by selected countries / years (Total Investments in USD)

● Funding domestic ...
● Funding internatio...
● RO received intern...

Belgium

0M   5M

Loc. of Funder	Parameter	$
European Union	3,228,411	T
United States	2,937,500	T
Belgium	1,834,602	T
United Kingdom	21,259	T

by Research Area (Total Investments in USD)

Preventives
Basic Research
Capacity Building
Operational
Diagnostics
Therapeutics

0M   2M

by Infectious Agent (Total Investments in USD)

Gram - bact...
Not specifie...
Gram variati...
Gram + bact...

0M 2M 4M

by Location of Research Organisation (Total Investments in USD)

GER
BELGIUM
Bing
© 2020 Microsoft Corporation   Terms

by One Health Sectors (Total Investments in USD)

● Human

9M

not specified
449K

Dynamic Dashboard | COUNTRIES All sectors

No. of Funders: 6
Total Investment: 8.02M
No. of Projects: 33

GLOBAL AMR R&D HUB

Last updated: 02.07.2020

Title	Objectiv
New Diagnostics for Infectious Diseases: "ND4ID"	Infectious diseases are a major burden to public health and the global economy, not in the least due to antimicrobial resistance. Rapid point of ca effective clinical management of patients with infectious diseases. Yet there is still a large unmet clinical need for more rapid POC IVDs generating Effectively addressing this need requires a change in the current approach in training researchers on IVDs, generating a new 'breed' of IVD resear and technological perspective. ND4ID takes up this challenge by offering 15 ESRs a world-class first of its kind training programme where they wil clinical, technological and market-oriented viewpoints, from both the academic and non-academic sector. Through a set of synergistic research pi important and urgent clinical needs at world leading academic or private sector research groups, the ESRs are offered a holistic training program, field. This training through research is augmented by a unique comprehensive network-wide training programme covering clinical, technical and t research, development and exploitation. As such, ND4ID will deliver ESRs that will be in high demand serving as an example for other academic a researchers and further strengthening Europe's position in the internally competitive arena of IVD technology.
"Estimating the effective reproductive rate of M. tuberculosis from changes in molecular clustering rates, to measure the impact of public health interventions on TB transmission"	'Excessive delays in treatment onset limit current tuberculosis (TB) control programs, presenting a major obstacle to the control of the TB epidem temporally, is considered a priority, benefiting the patient (reduced morbidity and mortality) and the society (shortened period of infectiousness) goal: to reduce transmission and eventually contain the spread of TB within the population. However, assessing reduced transmission of TB proof been integrated in mathematical models or in field trials of public health interventions. Therefore, I aim to develop a model that incorporates bac human host population, hypothesizing that an effective Enhanced-Case-Finding (ECF) method can interrupt TB transmission. Integration of routin bioinformatics and mathematical modelling provides a novel and powerful approach to understand the key determinants of the TB epidemic, suc the dynamics of TB transmission. I have the unique opportunity to position the present proposal as an added-value study that builds on 3-year CI about to be launched in The Gambia in 2012. By applying molecular genotyping methods to bacterial isolates collected from both the ECF interve measure and model the impact of ECF on the transmission of TB. This will be the first study of its kind in integrating molecular genotyping data in level interventional study. The identification of significant transmission parameters will be important both for basic TB research and also for healt interventions in the future.'
Albomycin gebaseerde tRNA synthetase inhibitoren als lead structuren voor de ontwikkeling van nieuwe antibiotica	
Assessment of the nasopharyngeal carriage of Streptococcus pneumoniae and other common pathogens in infants (6-30 months) with acute otitis	

Please note that only filters used in the side bar will narrow the results presented through the See Data Table function. This means that if you use the interactive filter by clicking on a component in the visuals this will not narrow the projects/investments presented. For further search functionality, click on Search in the Frame.

How to interact with the report

The Reports 101 section provides more information on functionality and what the different icons or options do.

Return to top of page.
ANIMAL REPORTS

Coming on 31 July 2020

ENVIRONMENT REPORTS
Coming in 2021

HUMAN REPORTS
FUNDER REPORT

Objective

Explore the data by who is providing the funding. See what research areas and stages that funders are funding over the years and also where that research is happening.
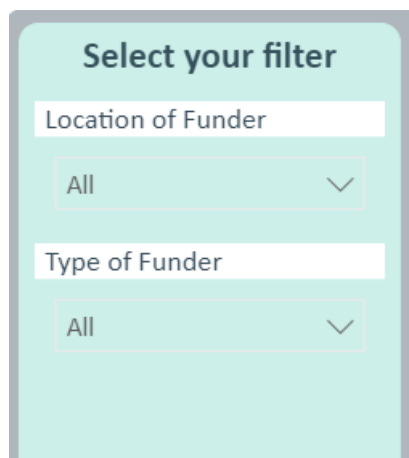
Key elements of the page

Parameters

For information on the parameters please see the [Investment in AMR R&D report](#) .

Filters

The different filters allow you to tailor the report to show information by the different types of funders and the location of the funder.

Boxes

Boxes are an element that are used throughout all reports. The boxes contain the total count of funders, investment and projects. The values will change when filters are applied or selections are made on the visuals. The boxes are not interactive and will not change the visuals if clicked.

Visuals

The report presents five interactive visuals.

By Funder

Users can search and click on a funder of interest and all visuals adjust to display information only for the selected funder. The example is showing all AMR R&D funding provided by the Innovative Medicines Initiative.
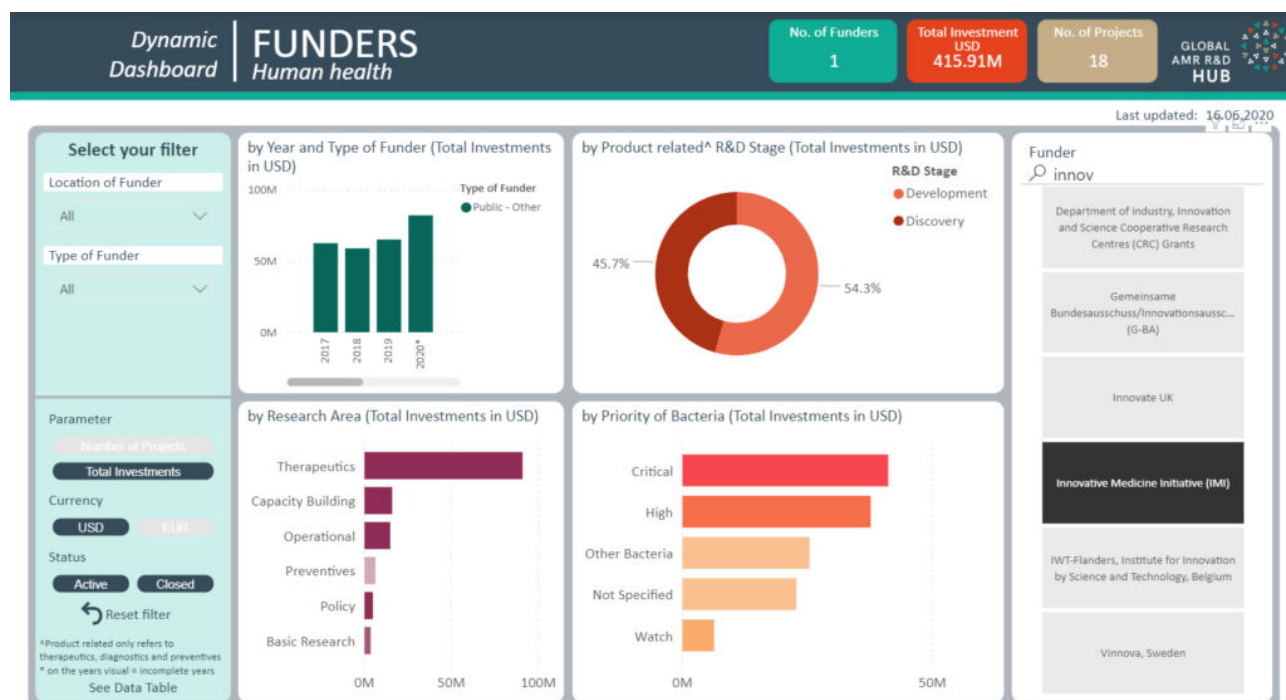
The list of funders will update and show the relevant results based on the filters selected. The example shows Australia selected as the location of funder and then only funders located here are displayed.
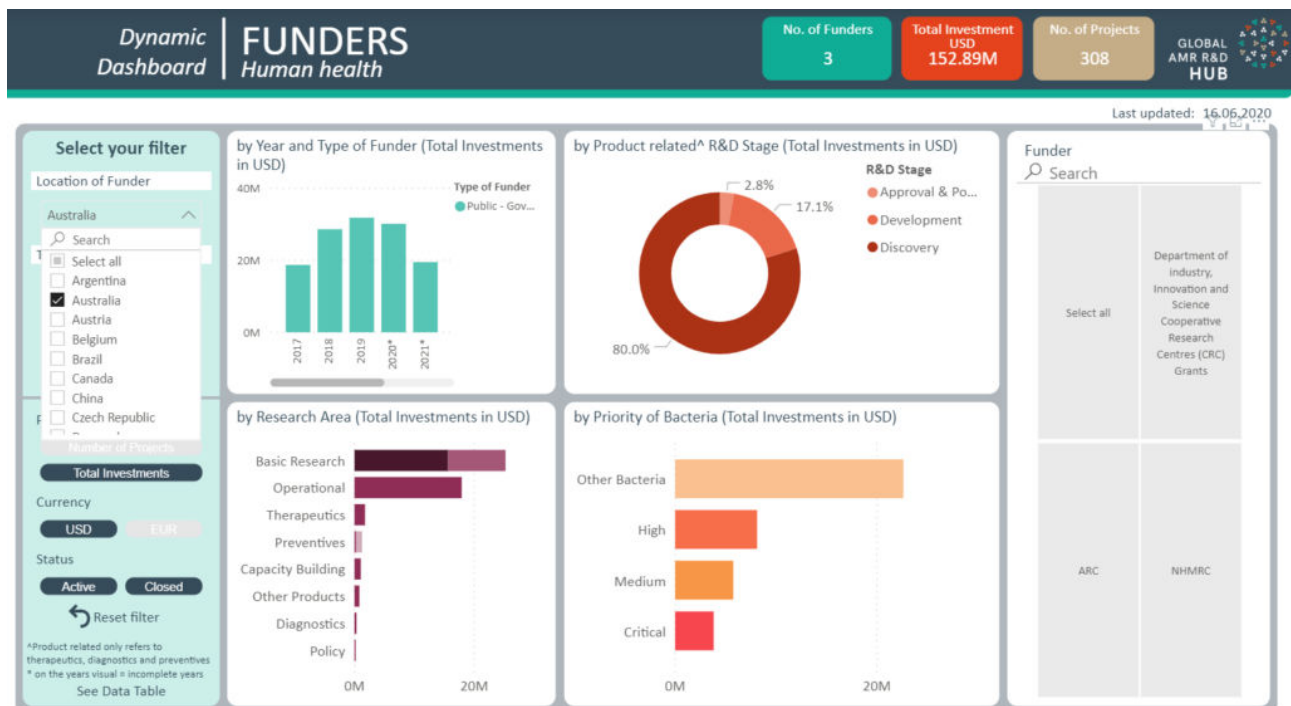
By Year and Type of Funder

Users can click a specific year (the example shows 2018) and the visuals will adjust to display information only for the selected year. Hover your mouse to see the full titles of the legend in any of the visuals.

By Research Area

Some projects will be categorised into multiple research areas. When this happens, the investment is split evenly across the research areas. For example, if a project is both capacity building and diagnostics then 50% if the investment will be allocated to each research area. However, the project number is not be split across the research areas. Please note that this total investment amount may not match the total investment figure reported in the box at the top of the report. This is because the box reports the investment for the entire project and does not split the amount if there a project is categorized into multiple research areas.

You can see that some research areas have subcategories. The names of these subcategories can be seen when you hover over the area of interest or can be seen when you click 'show as a table'.
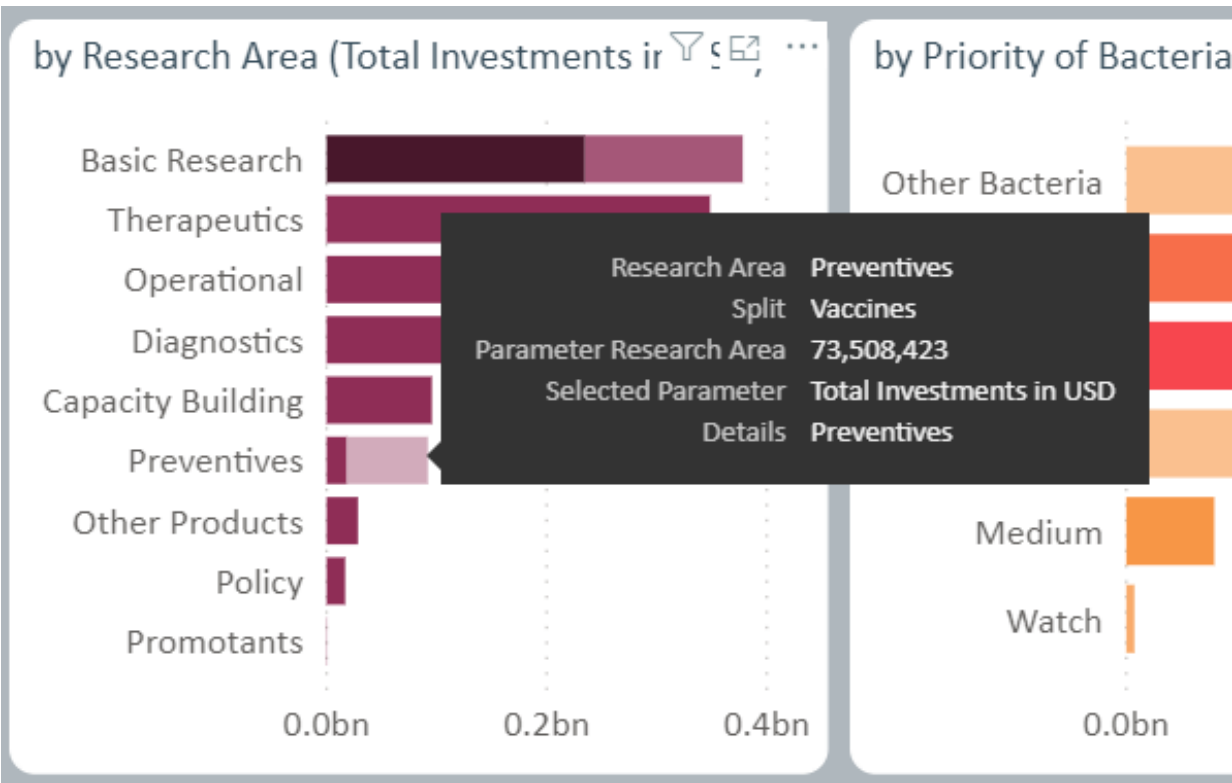
Product related R&D Stage

The Product related R&D Stage visual currently only presents information from the therapeutics, diagnostics and preventives research areas. Therefore the total will be less than the overall as not all investments are included. It is possible to drill down for more information in this visual. See the Reports 101 section on how to do this.

Product related* R&D Stage

R&D Stage
- Approval & Po...
- Development
- Discovery

4.3%
18.9%
76.7%

by Year and Type of Funder (Total Investments in USD)

Type of Funder
- Multilateral...
- Private - No...
- Public - Gov...
- Public - Other

by Product related^ R&D Stage (Total Investme...)

R&D Stage
- Approval & Po...
- Development
- Discovery

3.6%
48.0%
48.5%

by Research Area (Total Investments in USD)

Therapeutics
Diagnostics
Preventives

0.0bn   0.1bn   0.2bn

by Priority of Bacteria (Total Investments in USD)

High
Critical
Other Bacteria
Not Specified
Medium

0M   50M   100M

By priority of bacteria

This visual presents the bacteria grouped based on their priority level. This grouping is explained here. The colours used in this visual for priority level are continued throughout the human health reports

by Priority of Bacteria (Total Investments in USD)
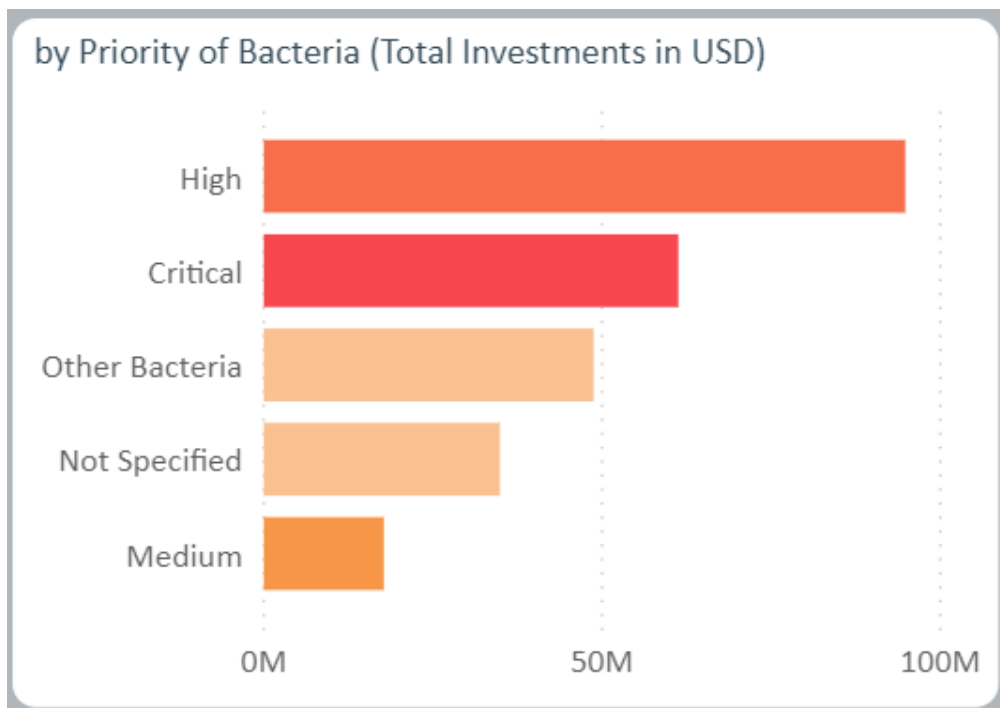
It is possible to drill down on this visual to see the individual bacteria names. For more information on how to drill down please refer to the Reports 101 section.
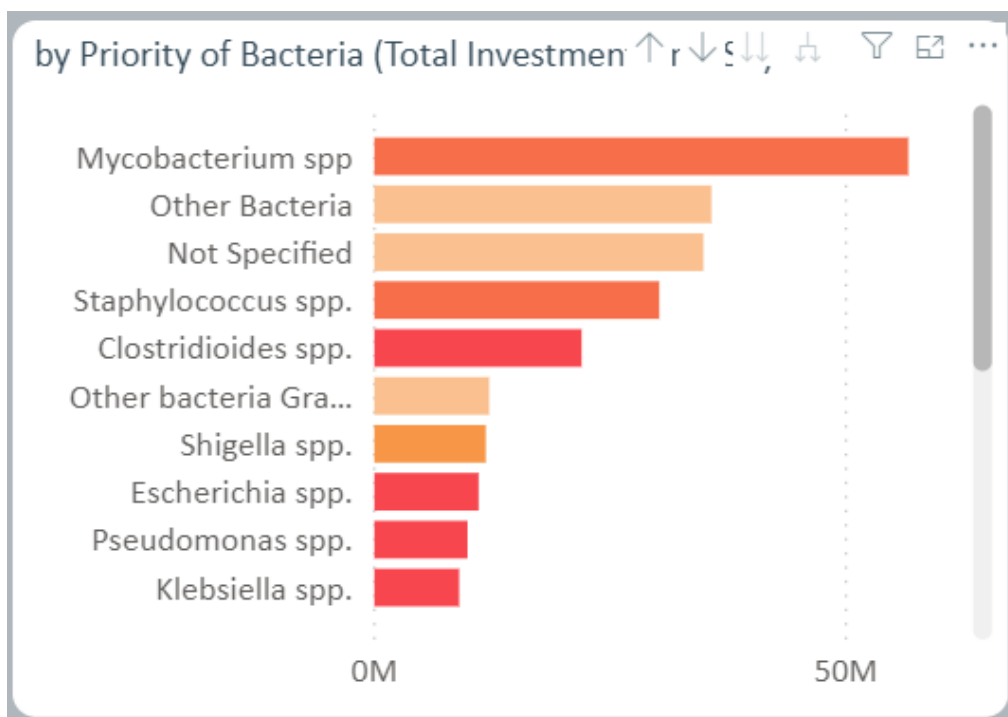
by Priority of Bacteria (Total Investmen

Underlying data

To see and download the project level information (where possible to release) for a report, you can click See Data Table. The example below has filtered for projects/investments from 'public - other' funders in New Zealand. The resulting data table provides the information for each of the 16 projects from this one funder.

Select your filter

Location of Funder

New Zealand ⌄

Type of Funder

Public - Other ⌄

Parameter

Number of Projects
Total Investments

Currency

USD   EUR

Status

Active   Closed

↺ Reset filter

^Product related only refers to therapeutics, diagnostics and preventives
* on the years visual = incomplete years
See Data Table

by Year and Type of Funder (Total Investments in USD)

Type of Funder
● Public - Other

1M

0M

2017 2018 2019 2020* 2021*

by Research Area (Total Investments in USD)

Basic Research

Therapeutics

Preventives

0M   5M

by Product related^ R&D Stage (Total Investments in USD)

R&D Stage
● Discovery

100.0%

by Priority of Bacteria (Total Investments in USD)

High

Other Bacteria

Critical

Medium

0M   2M

Funder

🔍 Search

Select all

Marsden Fund

Dynamic Dashboard | **FUNDER** Human health

| No. of Funders | Total Investment | No. of Projects |
| 1 | 7.24M | 16 |

GLOBAL AMR R&D HUB

Last updated: 02.07.2020

Title	Objectiv
Exploiting the biological costs of drug resistance to design new therapeutic regimens against Mycobacterium tuberculosis	Tuberculosis is now the leading cause of death by a single infectious agent worldwide. Infections with Mycobacterium tuberculosis are treatable, drug resistance has rendered many of these antibiotics ineffective. New antibiotics represent lifelines in the fight against M. tuberculosis but with development of resistance is inevitable. Drug resistance in M. tuberculosis occurs via chromosomal mutations that often incur a biological cost. R render microbial cells hyper-sensitive or resistant to unrelated classes of antibiotics via a phenomenon termed collateral sensitivity. Using a comb research will identify resistance mechanisms that sensitize M. tuberculosis to alternative clinically relevant drug classes. Antibiotics with overlapp prevent the emergence of resistance and to rapidly kill drug resistant strains. This research has the potential to identify novel antibiotic combinat also shorten the duration of treatment. It is anticipated that these methodologies and results will be applicable to other bacterial pathogens whe
Game of clones: unravelling biocide resistance mechanisms in Staphylococcus aureus	Chlorhexidine (CHX) is a topical antiseptic used extensively in the clinical setting. We recently discovered a high prevalence of CHX resistance in N resistance to another common antibiotic, fusidic acid. In this project, we will determine: (i) the evolution and transmissibility of CHX resistance in CHX resistance genes, and (iii) whether the presence of these genes confers any bacterial fitness cost. Such knowledge may identify novel strateg and spread of resistant S. aureus.
How do bacteria scavenge sialic acids from their human host?	.
	Sialic acids are extremely important sugars for mammalian cell recognition. However, they are also a recognition point and energy source for bact been demonstrated to be important for bacterial pathogen colonisation and persistence and is therefore a target for antimicrobial development.
	Our programme first explores how bacteria transport sialic acids across their plasma membrane and into the cell. We then examine how bacteria degradation of sialic acids.
	We are studying the sialic acid pathway in pathogens to inform drug design, develop powerful biocatalysts, and build a fundamental understandir
	The team combines world-class expertise in biointeractions and structural biology (Dr Dobson), with state-of-the-art methods in structural biolog Neutze), and supports four talented emerging New Zealand researchers.
	Together, our experiments will provide the first detailed 'picture' of how sialic acids are imported into the cell and a detailed mechanistic underst expression of genes within the pathway. Our results will enhance our understanding of general systems for membrane transport and gene regula
Molecular contingency on a massive scale: how	This research will explore how cells can draw upon the latent evolutionary potential of enzymes to help them withstand new environmental stres

Please note that only filters used in the side bar will narrow the results presented through the See Data Table function. This means that if you use the interactive filter by clicking on a component in the visuals this will not narrow the projects/investments presented. For further search functionality, click on Search in the Frame.

How to interact with the report

The [Reports 101](#) section provides more information on functionality and what the different icons or options do.

[Return to top of page.](#)

RESEARCH ORGANISATION REPORT

This report is currently under development and will be available soon.

Objective

Explore the data by who is doing the research. See what area of research is being investigated and the R&D activity by year. It is also possible to see the top 5 research organisations based on your selection.

[Return to top of page.](#)
RESEARCH AREA REPORT

Objective

Explore the data by the different research areas. See how much AMR R&D activity is happening by year, the type of funder, type of research organisations, the bacteria and stage of research.

Key elements of the page

Parameters

For information on the parameters please see the [Investment in AMR R&D report](#) .

Filters

The different filters allow you to tailor the report to show information by the different research areas, individual bacteria and/or by R&D stages. You are able to make multiple selections for all filters.

Boxes

Boxes are an element that are used throughout all reports. The boxes contain the total count of funders, investment and projects. The values will change when filters are applied or selections are

made on the visuals. The boxes are not interactive and will not change the visuals if clicked. The total investment amount in the boxes may not match the total investment provided in the visualisations in the report. This is because the boxes provide the investment for the whole project while the visualisations will split the budget when a project is categorized with multiple sectors, research areas, and/or R&D stages.

For example, when filtering by Capacity Building, the visualization shows that total investment is 367,151,212 while the total investment box reports 499,580,000.
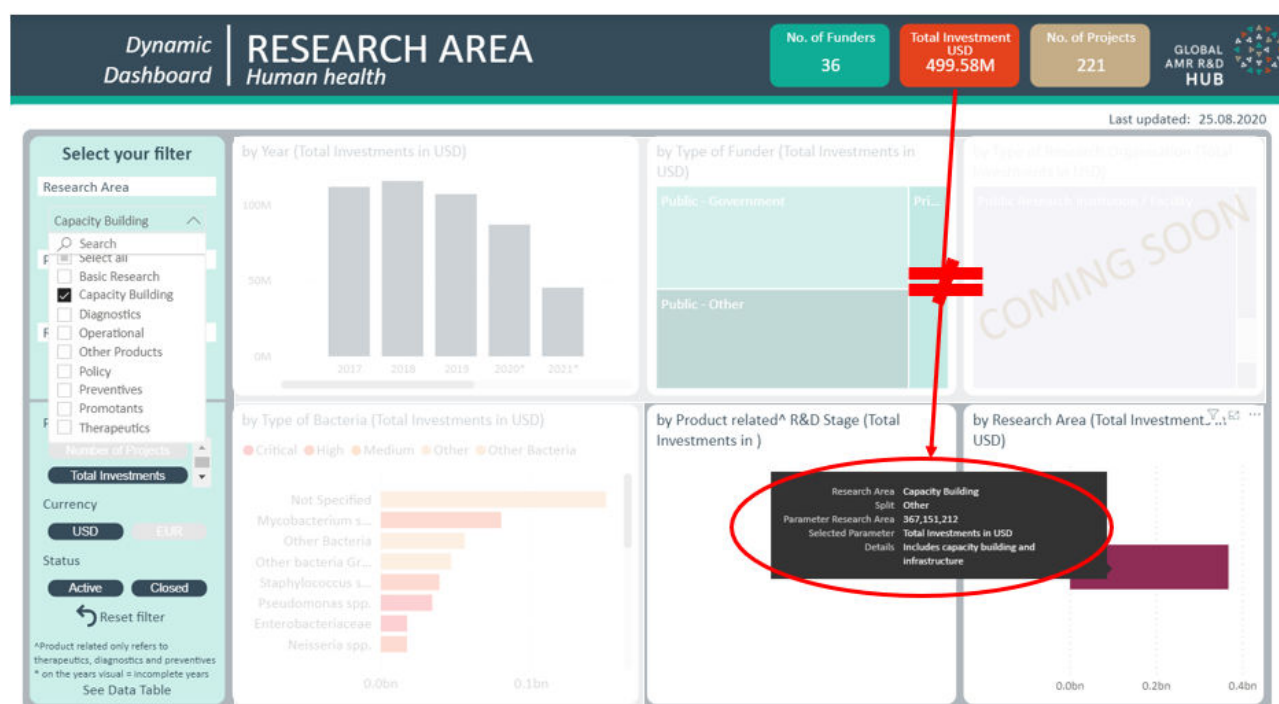
Visuals

The report presents five interactive visuals and place holder for the type of research organisation visual which will be coming mid July 2020.
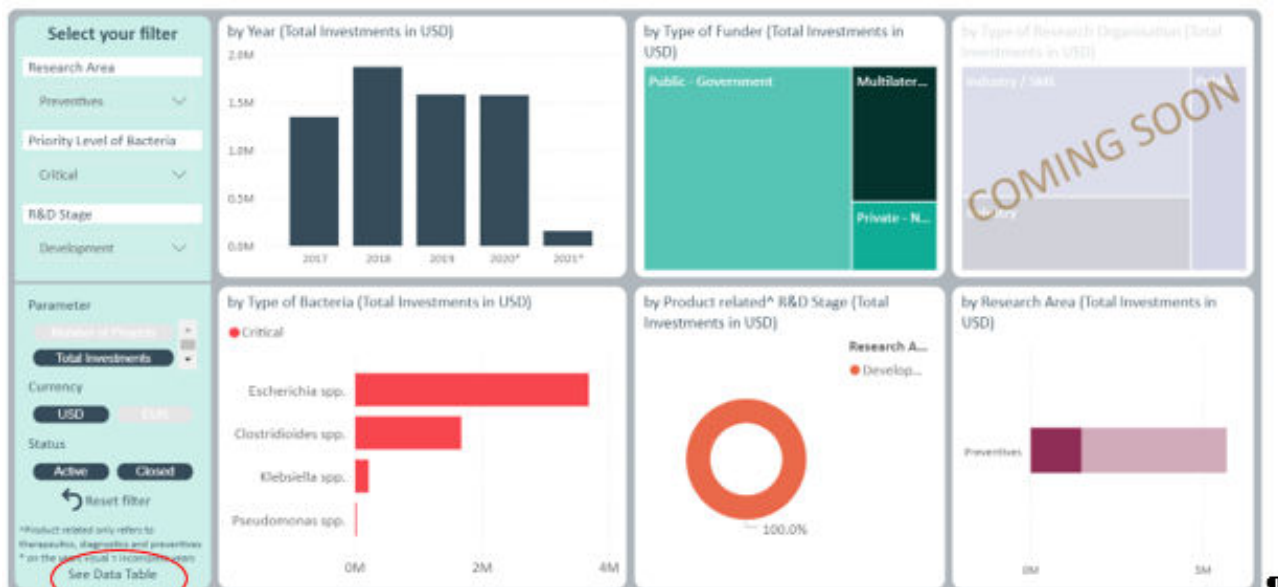
Some projects will be categorised into multiple research areas. When this happens, the investment is split evenly across the research areas. For example, if a project is both capacity building and diagnostics then 50% if the investment will be allocated to each research area. However, the project number is not be split across the research areas.

When a research area is selected in the filters then all AMR R&D activity linked to that research area is displayed in the visuals. The example below has filtered for Capacity building and you can see that the Product Related R&D Stage visual is empty as this visual will currently only display information for therapeutics, preventives and diagnostics research areas.
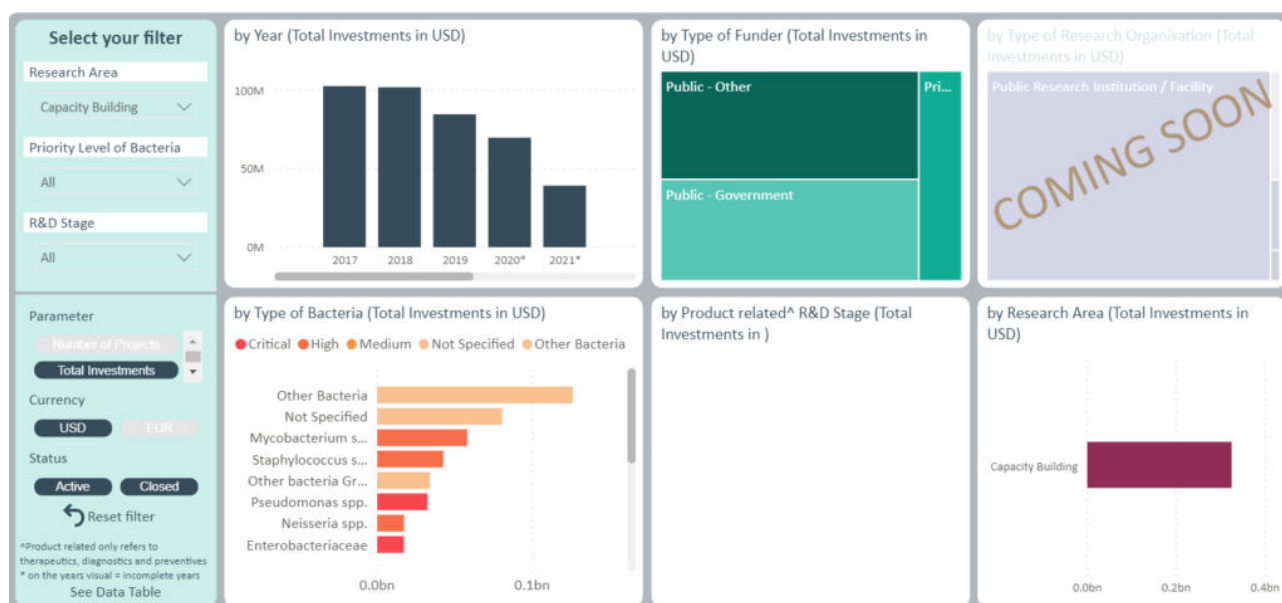
Users can filter by a research area and the priority level of bacteria (which are defined [here](#)) and all the visuals adjust to display information only for the selected options. The example shows all diagnostic projects for critical priority level bacteria.

Underlying data

To see and download the project level information (where possible to release) for a report, you can click See Data Table. The example below has filtered for projects/investments looking at preventives for critical bacteria in the development stage. The resulting data table provides the information for each of the 6 projects from the 6 different funders.

Please note that only filters used in the side bar will narrow the results presented through the See Data Table function. This means that if you use the interactive filter by clicking on a component in the visuals this will not narrow the projects/investments presented. For further search functionality, click on Search in the Frame.

How to interact with the report

The [Reports 101](#) section provides more information on functionality and what the different icons or options do.

[Return to top of page.](#)

PATHOGEN REPORT

Objective

Explore the data by the bacteria that you are interested in. See the AMR R&D activity over the years, what type of research organisation is doing the research, and what areas and stages that R&D is happening.

Key elements of the page

Parameters

For information on the parameters please see the [Investment in AMR R&D report](#) .

Filters

Currently you can to tailor the report to show information by the infectious agents, priority level of bacteria (defined [here](#)) and bacteria you are interested in. You are able to make multiple selections. Later in 2020, you will also be able to filter by infectious agent (bacteria, fungi, virus, parasite).

Boxes

Boxes are an element that are used throughout all reports. The boxes contain the total count of funders, investment and projects. The values will change when filters are applied or selections are made on the visuals. The boxes are not interactive and will not change the visuals if clicked. The total investment amount in the boxes may not match the total investment provided in the visualisations in the report. This is because the boxes provide the investment for the whole project while the visualisations will split the budget when a project is categorized with multiple sectors, research areas, and/or R&D stages.

Visuals

The report presents four interactive visuals and a place holder for the type of research organisation.

By Product Related R&D Stage

Users can filter by a bacterium and click an R&D stage of interest and all the visuals adjust to display information only for the selected options. The examples show all discovery projects for *Mycobacterium* spp.

Please note that R&D stage information is currently only available for therapeutics, diagnostics and preventives projects and this is the only information displayed for this visual.
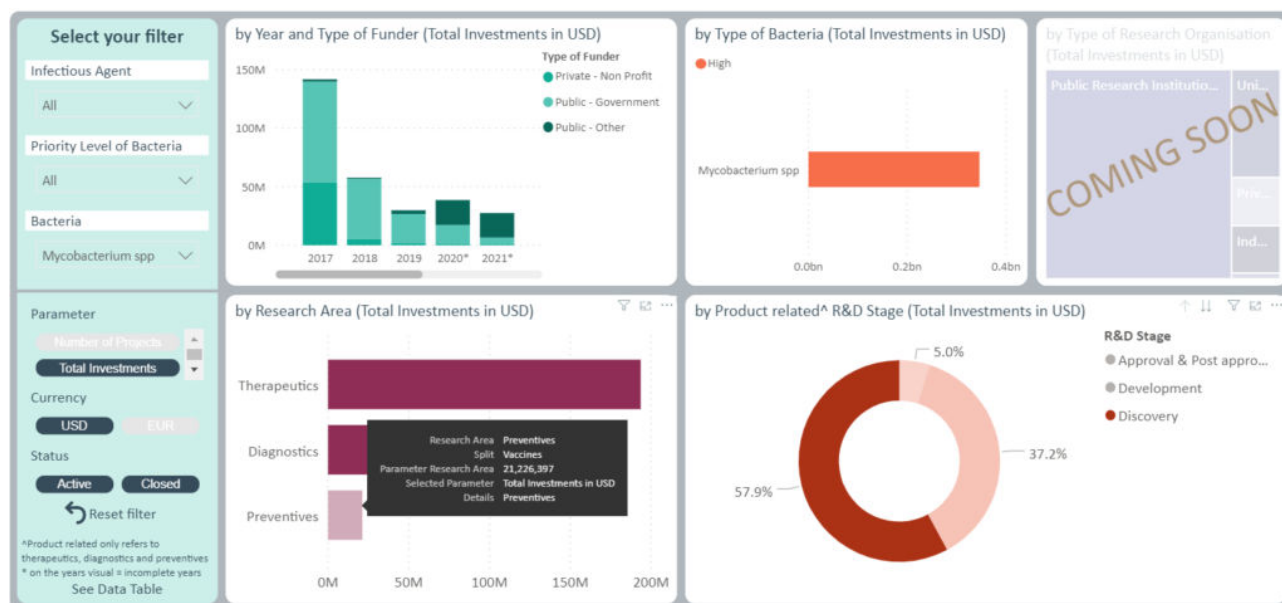
By Year and Type of funder

Users can filter by multiple bacteria and click on a year and all the visuals adjust to display AMR R&D activity for that one year for the selected bacteria. The example shows all AMR R&D activity for 2017 for the critical level bacteria (defined here).

By research area

Some projects will be categorised into multiple research areas. When this happens, the investment is split evenly across the research areas. For example, if a project is both capacity building and diagnostics then 50% if the investment will be allocated to each research area. However, the project number is not be split across the research areas. Please note that this total investment amount may not match the total investment figure reported in the box at the top of the report. This is because the box reports the investment for the entire project and does not split the amount if there a project is categorized into multiple research areas.

Underlying data

To see and download the project level information (where possible to release) for a report, you can click See Data Table. The example below has filtered for projects/investments looking at preventives for critical priority level bacteria in the development stage. The resulting data table provides the information for each of the 6 projects from the 6 different funders.

Dynamic Dashboard | RESEARCH AREA Human health

No. of Funders	Total Investment	No. of Projects	GLOBAL AMR R&D HUB
6	6.55M	6	

Last updated: 02.07.2020

Title	Objectiv
Clinical development of a Novel, Live, Attenuated Oral Combination Shigella/ETEC Vaccine	The requested funding would support clinical immune assay development, the conduct of Phase 1 safety and immunogenicity trial and analysis o activities supported by the proposed grant will set the stage for further proof of concept clinical evaluation of ShigETEC, such as Phase 1b trial in challenge studies and ultimately Phase 3 field efficacy studies. If successful, ShigETEC will provide a practical and affordable solution to the proble at risk for death and long term consequences of diarrheal illness in low and middle income countries and adversely affect millions of people who Shigella and ETEC disease.
Development of basic and clinical evidence on the efficacy of lactic acid bacteria vaginal suppositories for recurrent urinary tract infections	Clinical research and basic research were conducted to build basic and clinical evidence on the efficacy of lactobacillus vaginal suppositories for r 1.In FY29, the first year of this study, we conducted clinical trials on the effects of lactic acid bacteria tablets on the rectal and vaginal flora for the generation sequencers. Withor regardto the presence or absence of basic diseases of the urinary tract, administered lactic acid bacteria tablet to genome sequence of rectal and vaginal flora samples in 47 cases was determined by the next generation sequencer. On the other hand, it was administered three times a week lactic acid bacteria vaginal suppositories high ability to produce hydrogen peroxide in them were 52 to 85 years old (average 68.6 to 12.1 years old), and all cases were postmenopausal. The incidence of urinary tract infections befor 4.4 times / year. Although it is not possible to compare because it is still within one year of administration, the incidence of urinary tract infection 3.in using the vitro experimental system, we examined the combined effect of lactic acid bacteria and antimicrobial agents on Pseudomonas aeru method, Pseudomonas aeruginosa growth is suppressed by lactic acid bacteria, the formation inhibitory effect of biofilm in combination with LVF inhibitory effect of Pseudomonas aeruginosa biofilm by lactic acid bacteria was observed, the inhibitory effect was enhanced in combination with crispatus), the usefulness of the highest strain of hydrogen peroxide producing ability is suggested, the therapeutic effect of combination with an
EBSELEN PREVENTION OF C. DIFFICILE RECURRENCE	Clostridium difficile infection (CDI) is a life-threatening colon infection that causes more than 20,000 deaths each year in the US alone. Although increase the risk for gut microbe dysbiosis, leading to infection recurrence. An estimated 25-60 per cent of antibiotic-treated patients experience recurrence remains a significant challenge in treating CDI. Facile is developing Ebselen, an organoselenium compound, for the prevention of recu already achieved initial clinical cure via antibiotics. The program would provide a therapeutic with a proven clinical safety record from nonclinical
ETVAX â€" the first oral vaccine for protection against travellerâ€™s diarrhoea caused by ETEC	This project will perform a Phase II study of ETVAX â€" an oral vaccine against travellerâ€™s diarrhoea (TD) caused by enterotoxigenic E. coli bact vaccine with a full ETEC indication. TD caused by enterotoxigenic E. coli bacteria is the most common illness that affects travellers traveling in the regions. Currently, there is no approved method for preventing TD. Travellers are recommended to use off-label antibiotics such as Rifaximin or the cholera vaccine Dukoral to prevent TD. In business terms, there e commercializing an effective and safe ETEC vaccine. Scandinavian Biopharma is the first SME positioned to capture this opportunity. The envisage

Please note that only filters used in the side bar will narrow the results presented through the See Data Table function. This means that if you use the interactive filter by clicking on a component in the visuals this will not narrow the projects/investments presented. For further search functionality, click on Search in the Frame.

How to interact with the report

The Reports 101 section provides more information on functionality and what the different icons or options do.

Return to top of page.
PRODUCT DEVELOPMENT REPORT

Objective

Explore the data by the different stages of R&D. See what stage R&D is happening in therapeutic, diagnostic and preventives and what bacteria these potential products will address and who is doing the research.

It is important to note that R&D stage information is currently only available for therapeutics, diagnostics and preventives projects and this is the only information displayed in this report.
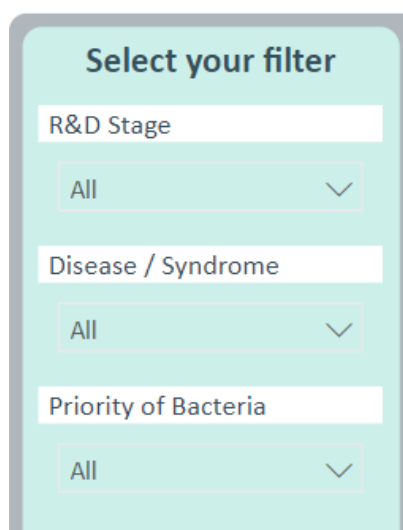
Key elements of the page

Parameters

For information on the parameters please see the [Investment in AMR R&D report](#).

Filters

The different filters allow you to tailor the report by the different R&D stages, diseases/syndromes and priority level of bacteria (defined [here](#)). You are able to make multiple selections.

Boxes

Boxes are an element that are used throughout all reports. The boxes contain the total count of funders, investment and projects. The values will change when filters are applied or selections are made on the visuals. The boxes are not interactive and will not change the visuals if clicked.

As this report only presents information on therapeutics, diagnostics and preventives the numbers presented in the boxes are lower than other reports (when no filter is applied).
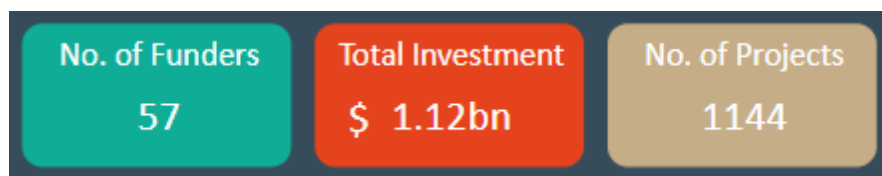
No. of Funders	Total Investment	No. of Projects
57	$ 1.12bn	1144

Visuals

The report presents five interactive visuals and place holder for the type of research organisation visual which will be coming in mid July 2020.

By type of bacteria

Users can filter by R&D stage and click a bacterium of interest and all the visuals adjust to display information only for the selected options. The examples show all development projects for *Clostridioides*.
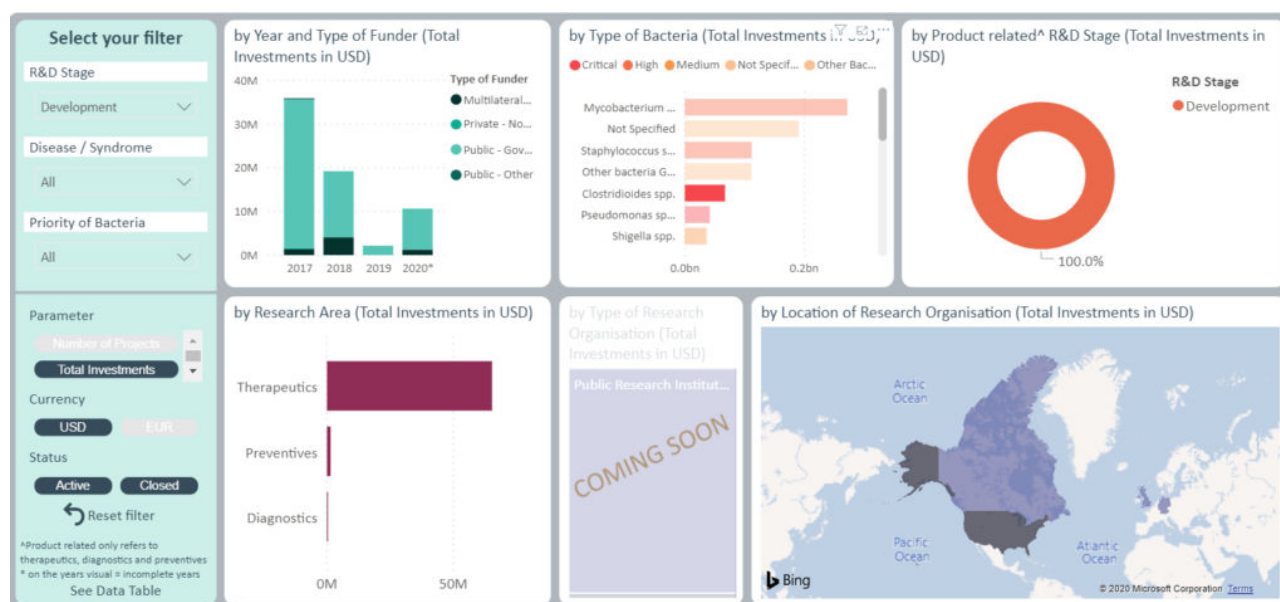
Some projects will research multiple bacteria. When this happens, the investment is split evenly across the different bacteria. For example, if a project is researching *Escherichia*, *Klebsiella* and *Pseudomonas* then 33% of the investment will be allocated to each bacteria. However, the project number is not split across the bacteria. Please note that this total investment amount may not match the total investment figure reported in the box at the top of the report. This is because the box reports the investment for the entire project and does not split the amount if there a project is categorized with multiple bacteria.

By research area

Some projects will be categorised into multiple research areas. When this happens, the investment is split evenly across the research areas. For example, if a project is both capacity building and diagnostics then 50% if the investment will be allocated to each research area. However, the project number is not be split across the research areas. Please note that this total

investment amount may not match the total investment figure reported in the box at the top of the report. This is because the box reports the investment for the entire project and does not split the amount if there a project is categorized into multiple research areas.

By Location of Research Organisation

Users can click a country of interest on the location of Research Organisation map (the example shows Canada) and all the visuals adjust to display information only for the selected country.
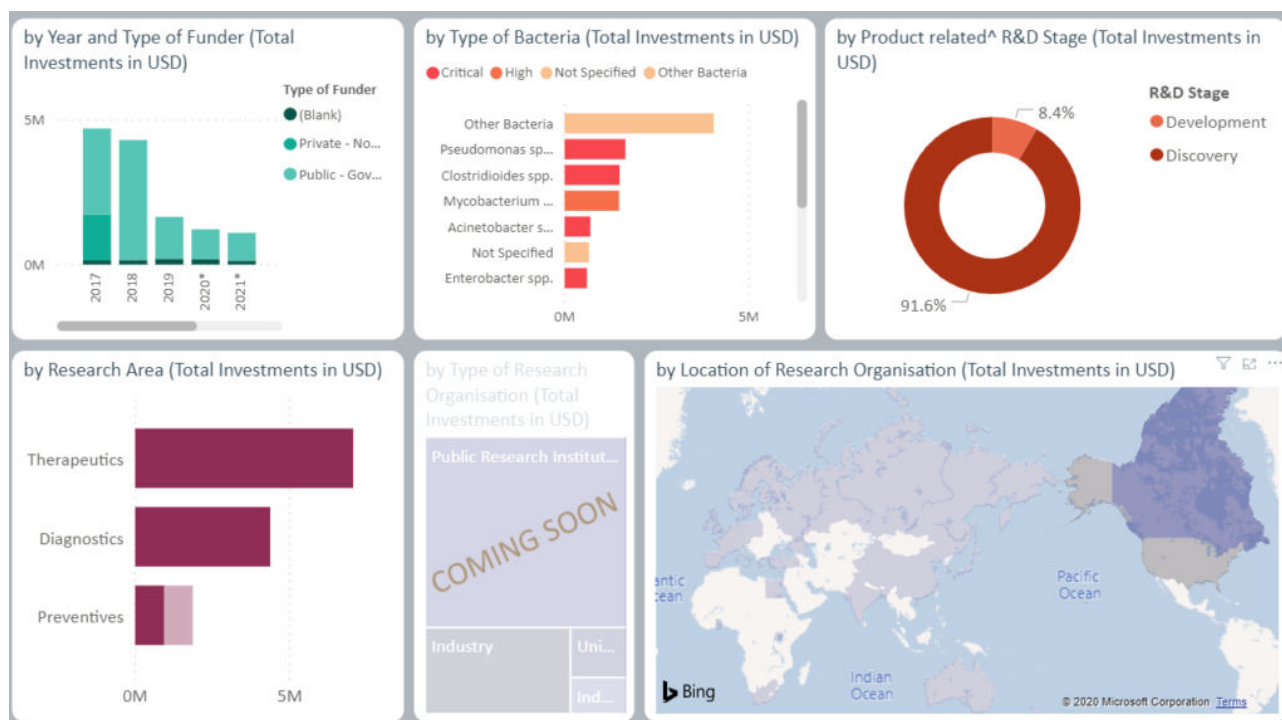
Underlying data

To see and download the project level information (where possible to release) for a report, you can click See Data Table. The example below has filtered for respiratory tract infections and bloodstream infections projects/investments for high priority bacteria in the discovery stage. The resulting data table provides the information for each of the 11 projects from the 8 different funders. In the example below, you can see that one project does not provide an abstract, this could be that we did not receive an abstract or we don't have the permission to publish the abstract.

Please note that only filters used in the side bar will narrow the results presented through the See Data Table function. This means that if you use the interactive filter by clicking on a component in the visuals this will not narrow the projects/investments presented. For further search functionality, click on Search in the Frame.

How to interact with the report

The [Reports 101](#) section provides more information on functionality and what the different icons or options do.

[Return to top of page.](#)
PLANT REPORTS

Coming in 2021

OUR DATA

Objective

When interpreting and using the information contained in the Dynamic Dashboard it is important to understand where the information has come from and where the gaps are.

Key element of the page

The map provides the location of the funders that have AMR R&D projects/investments included in the Dynamic Dashboard. The darker the shading of the country the more funders have been included. When you hover over a country the number of funders included is shown. This map is not interactive. Further information on the funders and data sources is provided at Data sources .
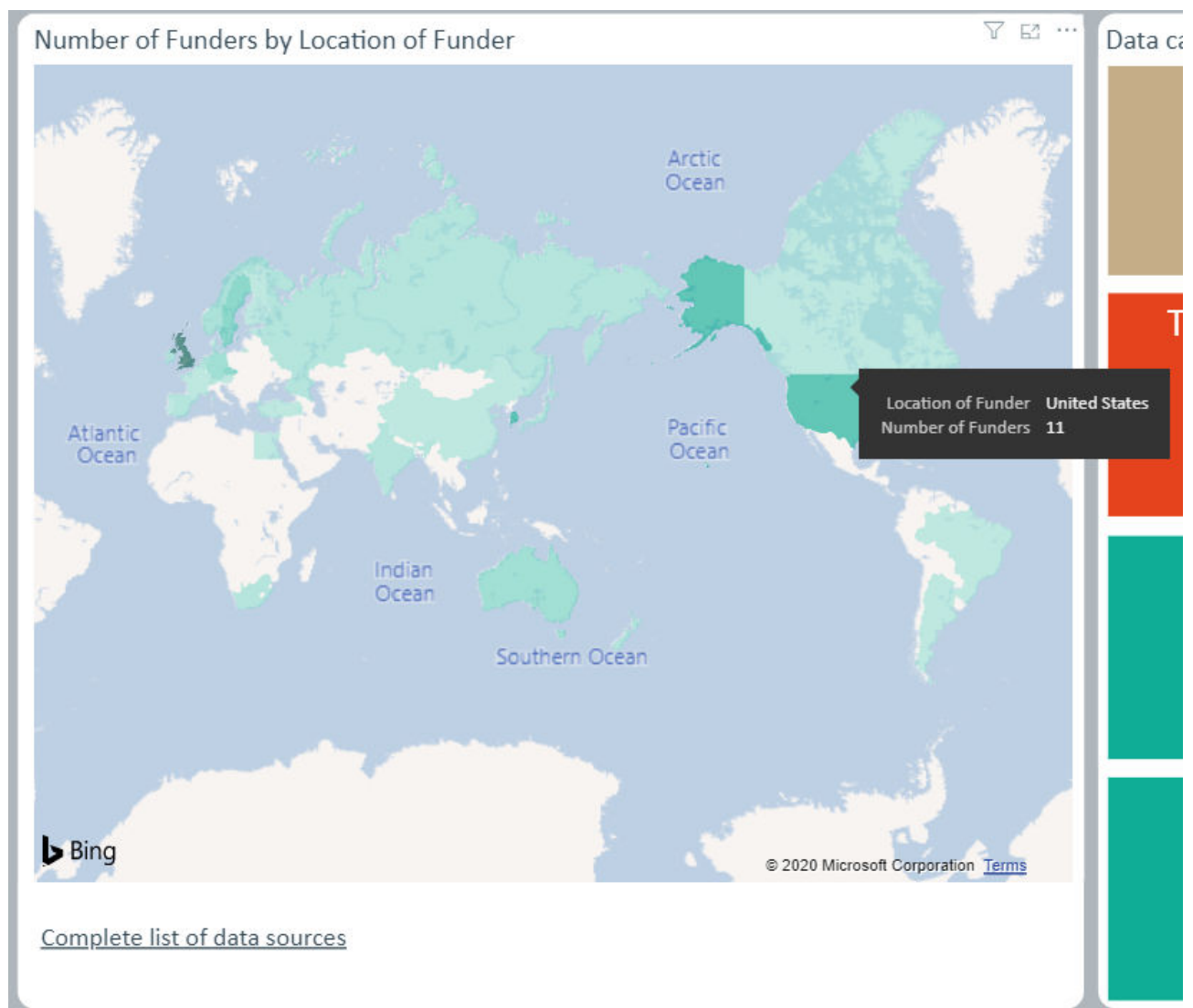
Data capture in the Dashboard over time

These visuals show the change over time (by month) of the data contained in the Dynamic Dashboard. To see the count for a certain month of an indicator hover your mouse over the relevant point.
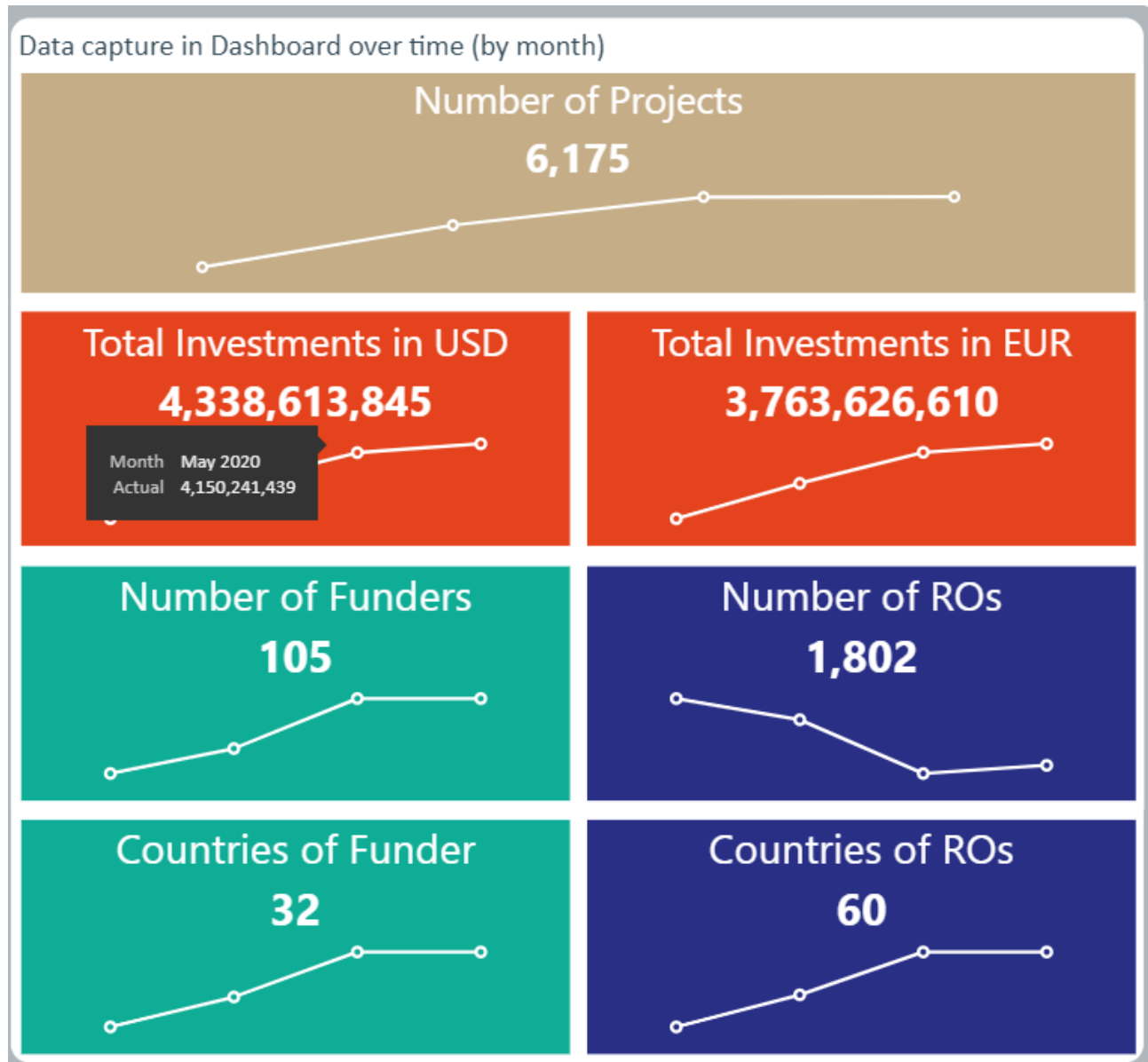
PIPELINE GALLERY

You can access the Pipeline Gallery from the Dynamic Dashboard Landing page.

Dynamic Dashboard

The Global AMR R&D Hub's Dynamic Dashboard continuously collects and presents information on AMR R&D investments, products in the pipeline and push and pull incentives across three galleries. It will provide the evidence base to help set priorities and maximize the impact and efficiency of resources and efforts invested into AMR R&D.

133	7474	5.6bn USD
Funders	Projects	Investment

Investments in AMR R&D

The global knowledge center for all AMR R&D activities and investments across the One Health continuum.

Enter

Product pipeline

Antibacterials in clinical development.

Enter

Push and pull incentives

What are we doing to fix the challenges hindering the development of the tools.

Enter

The Investment Gallery of the Dynamic Dashboard currently presents information on human bacterial infections and all AMR relevant infections in animal health. The scope of the Investment Gallery continues to evolve and will soon encompass all One Health sectors and other relevant pathogens. The Pipeline Gallery brings together information about antibacterial products for human use in clinical development from the World Health Organization and The Pew Charitable Trusts analyses. The Incentives Gallery displays currently implemented incentives targeting therapeutic markets for human antibacterials.

Survey on the Global AMR R&D Hub's Dynamic Dashboard: Link

Products in clinical development or that have been recently approved are presented in three categories:

- Addressing priority pathogens
- Addressing tuberculosis
- Addressing *Clostridioides*
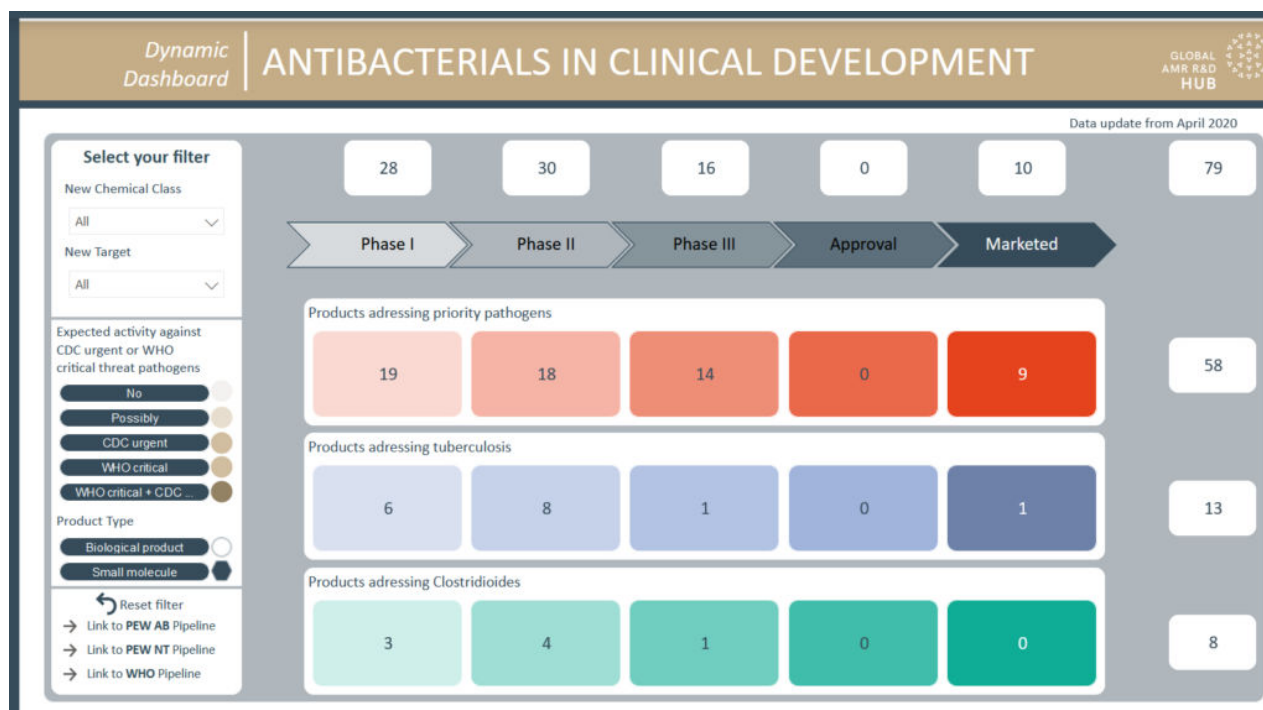
You can click on each of the boxes to reveal the products that fulfill the selected criteria. For example, the products addressing priority pathogens which are in phase II clinical development.
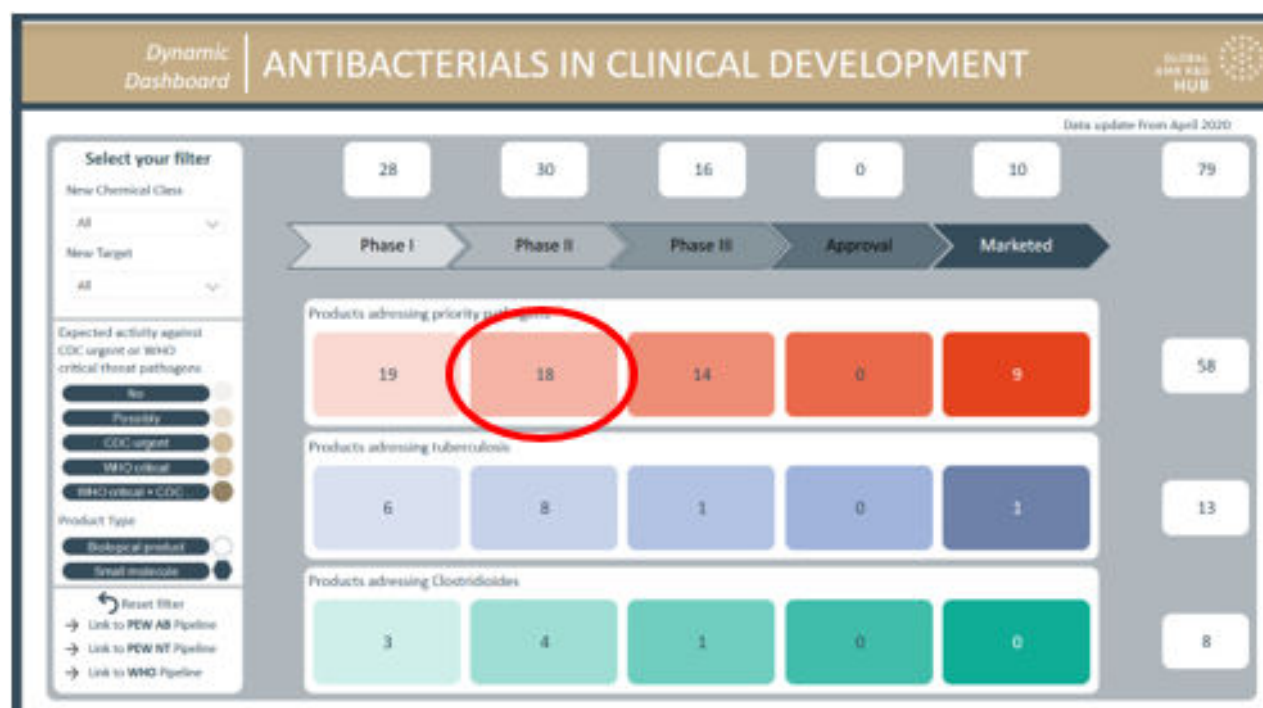
Clicking on the box will take you to a list of products.

You can go back by clicking on the arrow top left

On the left hand side you have filters to chose from, whether a product represents a new chemical class or whether it is active against WHO critical and CDC urgent pathogens, for example. Selecting filters will have the effect that only products are displayed which fulfil the chosen criteria.

In the example, the selection has been made for products that represent a new chemical class.
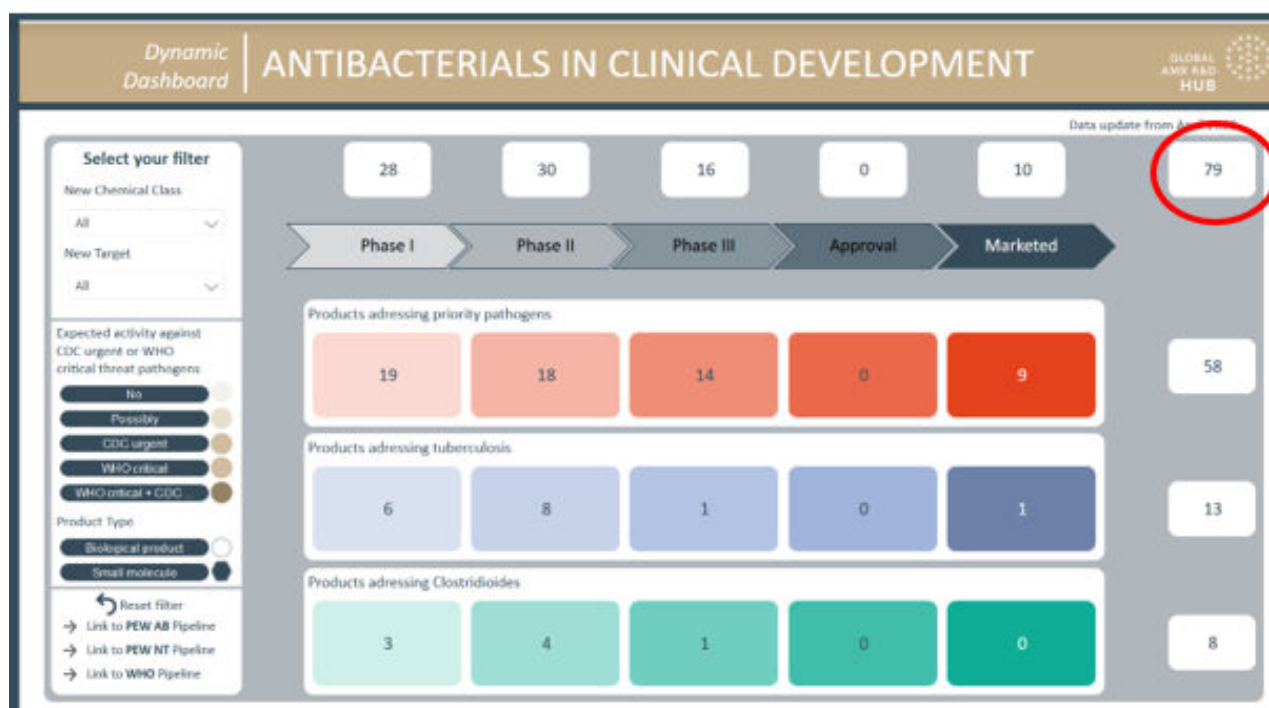
Out of the 79 products represented in the pipeline gallery of the Dynamic Dashboard, now only 19 products are shown. As before one can have the list of products being shown in detail by selecting the desired properties.

In the example the selection for all products is made by clicking on the top right-hand side figure (highlighted above).

The colour code next to the product represents the activity against the different types of pathogens. These can be selected on. In the example, only the products active against CDC urgent pathogens are selected.

Seven out of the 19 products remain.

The shape of the icon next to a product represents whether this is a small molecule antibiotic or a biological antibacterial agent.

This can be selected on, as the other filters (not shown).

The highlighted Reset filter button will clear selections made.

To see more detail about a product one can hover over its name and a box will appear (not shown).

A table with all products can be accessed by clicking on see all data.

A table appears.

Data update from April 2020

Projects	New Chemical Class	NewTarget	Product Type	Pipeline Objective	Company
514G3	N/A	N/A	Biological product	DRUG NAME: 514G3 DEVELOPMENT PHASE: Phase 2 INDICATIONS: S. aureus bacteremia COUNTRY (COMPANY): USA ANTIBIOTIC CLASS: anti-S.Aureus IgG mAB PATHOGEN CATEGORY: Priority pathogens PATHOGENS: Gram-positive priority pathogens ACTIVE AGAINST PRIORITY PATHOGENS?: Yes ROUTE OF ADMINISTRATION: IV Clinical trials: NCT02357966	Xbiotech
Afabicin / Debio 1450	Yes	Yes	Small molecule	DRUG NAME: Afabicin ALTERNATIVE NAME: Debio-1450 DEVELOPMENT PHASE: Phase 2 INDICATIO Click here to follow link itis ROUTE OF , Oral COUNTRY (COMPANY): CH ANTIBIOTIC CLASS: FabI inhibitor PATHOGEN CATEGORY: Priority pathogens PATHOGENS: Gram-positive priority pathogens ACTIVE AGAINST PRIORITY PATHOGENS?: Yes CLINICAL TRIALS: NCT02426918 INNOVATIVE?: Yes INNOVATION CRITERIA: New MoA NOVEL CLASS: Yes TARGET: FabI NOVEL TARGET: Yes EXPECTED ACTIVITY AGAINST ESKAPE PATHOGENS: Yes: S. aureus	Debiopharm

This table can be downloaded as for other data from the Dynamic Dashboard by clicking on the … in the top right-hand corner of the window, selecting 'export data' .
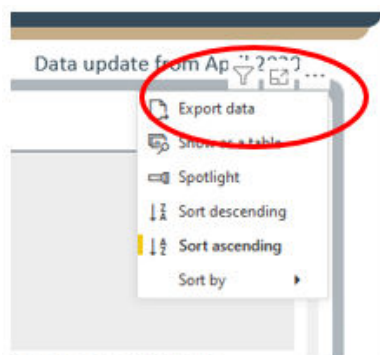
and then the following window will appear:
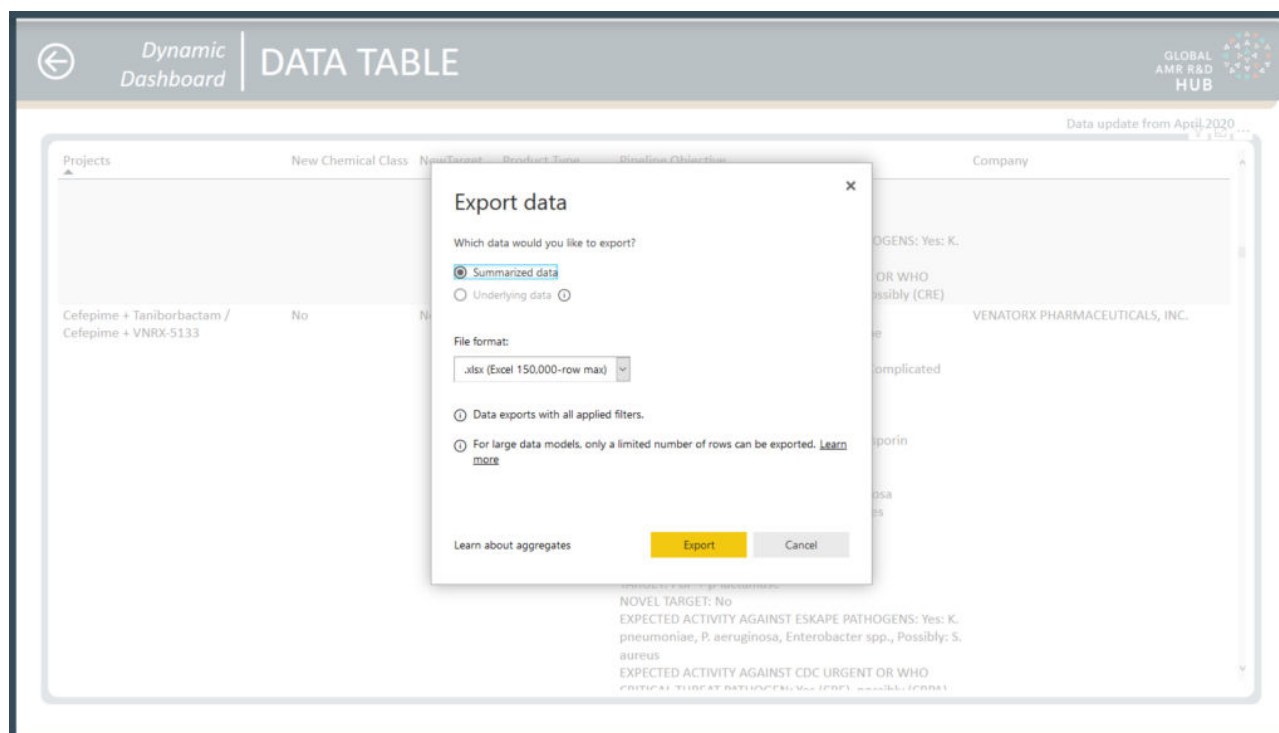
REPORTS 101

Selecting and filtering

The most common interactions with the reports of the Dynamic Dashboard are filtering the underlying data to what is relevant to your needs and to select specific items that are of particular interest. There are a handful of features that you should know about when doing this.

Filters pane

On the left side of most reports you will find the filter pane. What options you have there depends on the report you are looking at and adapts to what filters you have currently applied, e.g. you cannot switch between Euros and US-Dollars when you have set the report to display based on Number of Projects, to which a currency does not apply.
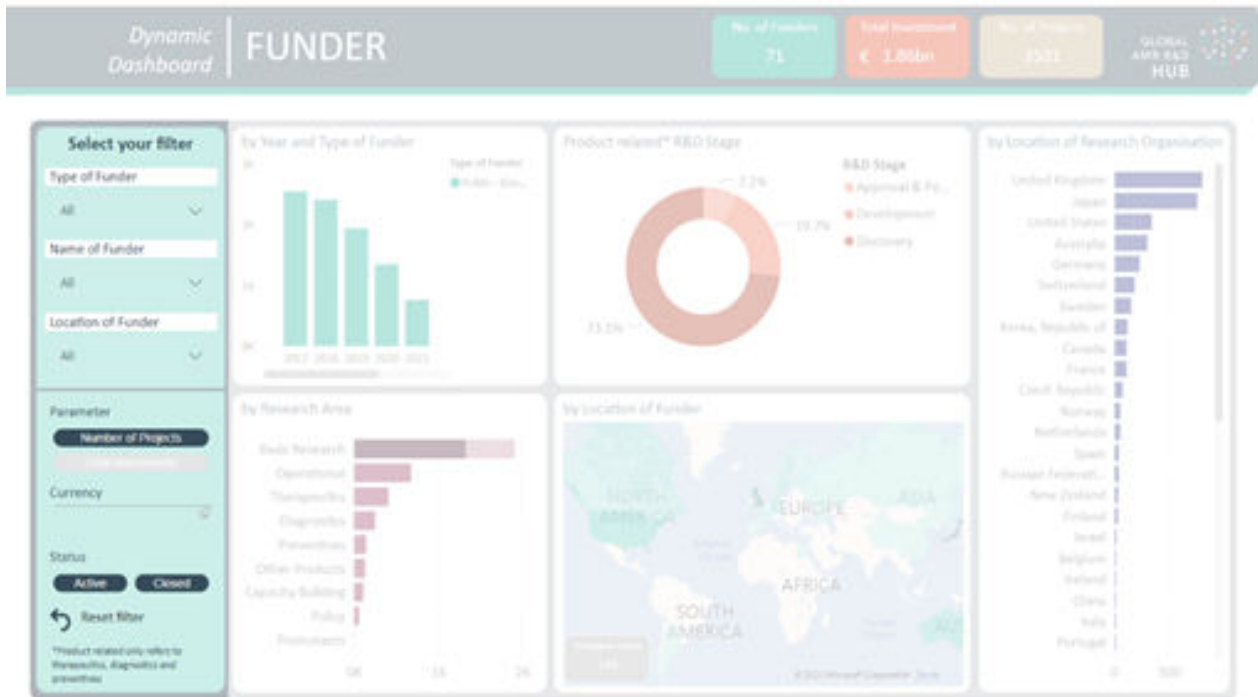
The most common element is a drop-down box that contains elments to select from and also doubles as an input field to limit the entries displayed in that drop-down box.
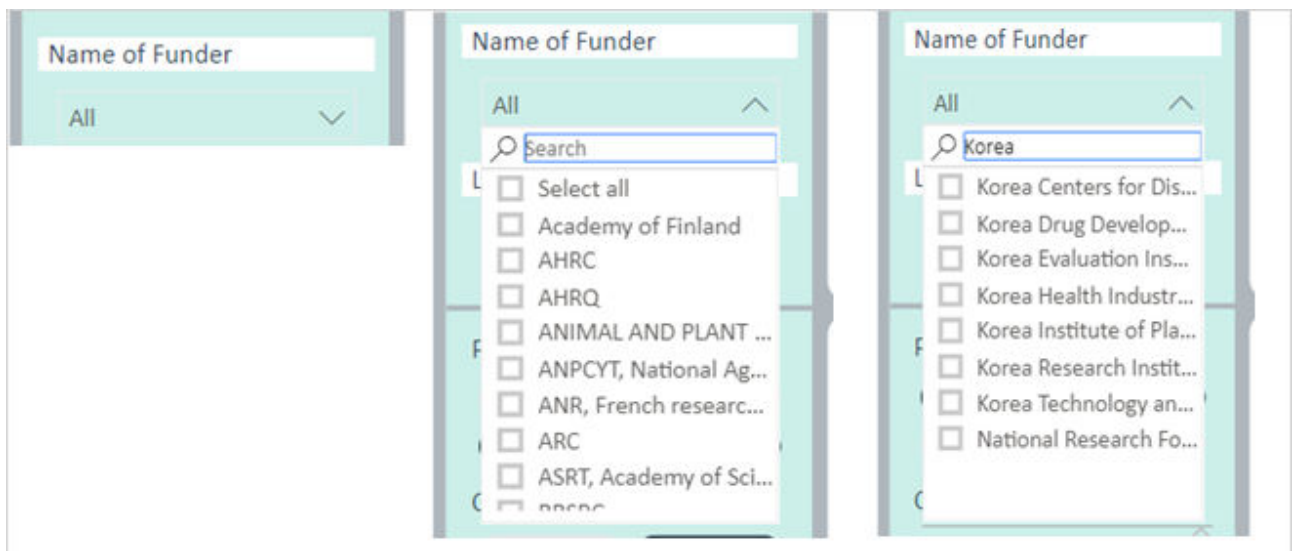

Next is the toggle button, which has an on and an off state, indicated by a dark color (on) or a light color (off). These buttons can be in an exclusive configuration that automatically switches linked buttons to off when clicked (upper example) and an alternative configuration that allows having multiple buttons in their on state (lower example). The left setting in the lower example indicates both Active and Closed items are in the selection, the right one indicates only Closed items are in the selection. NOTE: It is not possible to set that configuration to have no active buttons, which would result in no data being displayed in the report.

The upper example also shows the unavailable state of the Currency filter, because you can have both Active and Closed items in your selection, but you can not display the figures in the visuals in both Euros and US-Dollars at the same time.

Objects and elements

Most objects on a report are visuals that show some form of representation of the underlying data. These visuals are interactive and usually consist of a number of elements you can interact with. Most commonly you would click on the bars of a bar chart or slices of a pie chart, but you can also click axis elements, legend elements or other elements depending on the specific type of visual. All visuals can be interacting with all other visuals, i.e. implicitly filter them, but these connections can be deactivated by the report designer for various reasons. In the example we clicked on a smaller Research area and see the other visuals adapt to now only show their information for the selected subset of data.
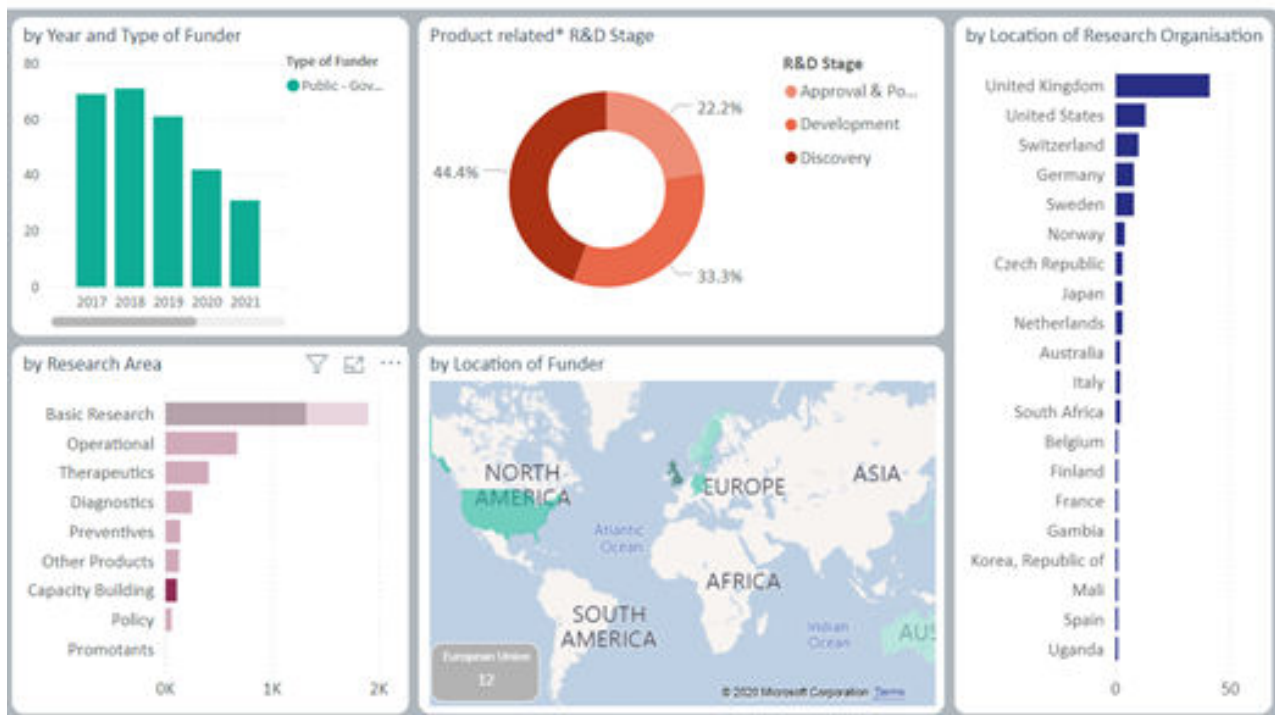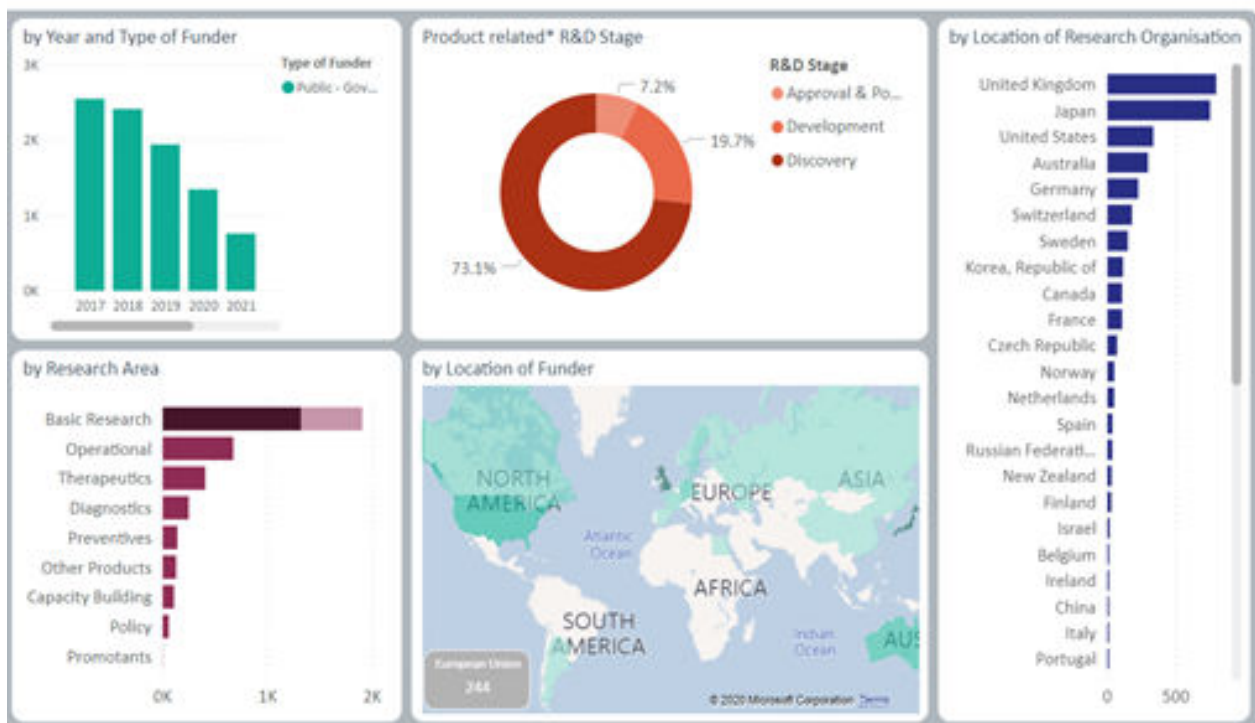
Selecting multiple

It is also possible to combine multiple clicks by holding the Ctrl-Key and clicking additional elements or elements in a different visual. To continue the example above we now add a filter on Location of Research Organisation, limiting all data displayed to Sweden, while also keeping the Research Area filtered.
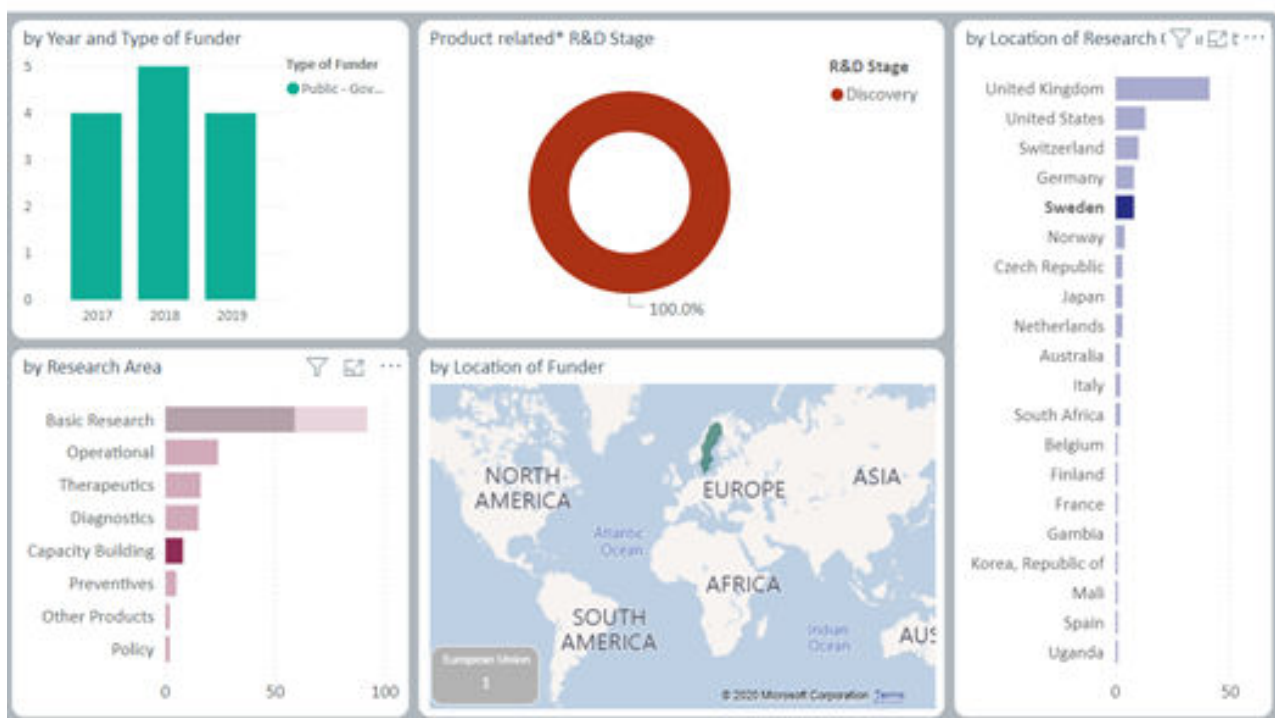
Tooltips

While you hover the mousepointer over an element, after a moment a tooltip will display additional information for the element. What is displayed depends on how the report has been designed and could look like the example below or even show a full sub-report inside the tooltip.
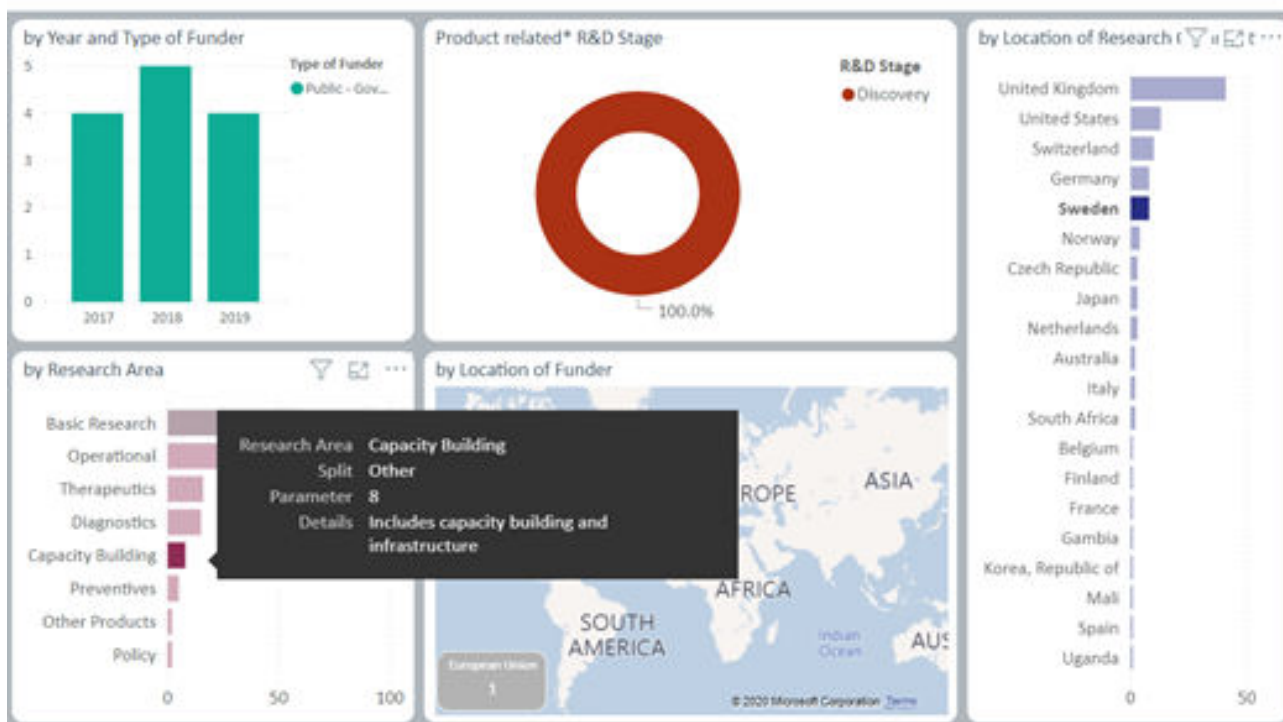

Funnel icon

Another useful feature is not visible by default, but once you hover the mousepointer over a visual a set of icons is displayed in the upper right corner of the visual. This set contains a small funnel icon.

If you move the mousepointer to hover over the funnel icon, a tooltip containing information on which filters and slicers are currently affecting the specific visual.
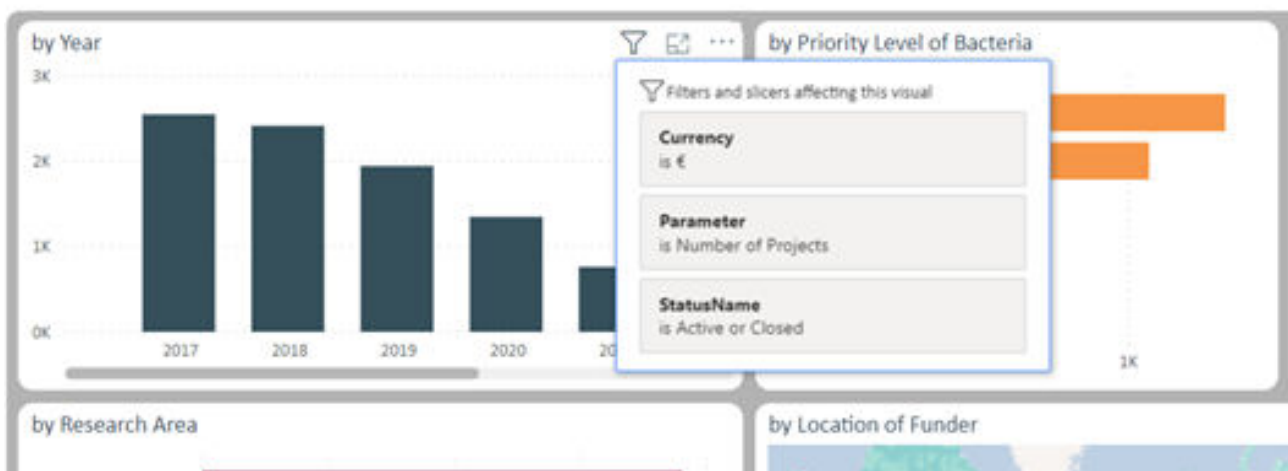

Note that this can be a different list depending on what visual you are hovering over, as both the data it displays, as well as the intentions for the report may have resulted in different sets of filters making sense a specific visual.

Reset filters

If you get lost or want to start over selecting and filtering your data, you can use the Reset Filter feature in the lower left of the report.
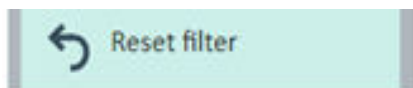

Focus Mode

Getting there and back

If you feel that a visual is not large enough to let you analyze your data, you can use another icon that is visible once you hover the mousepointer over a visual. It looks like a square getting scaled up and that is exactly what it does to a visual.
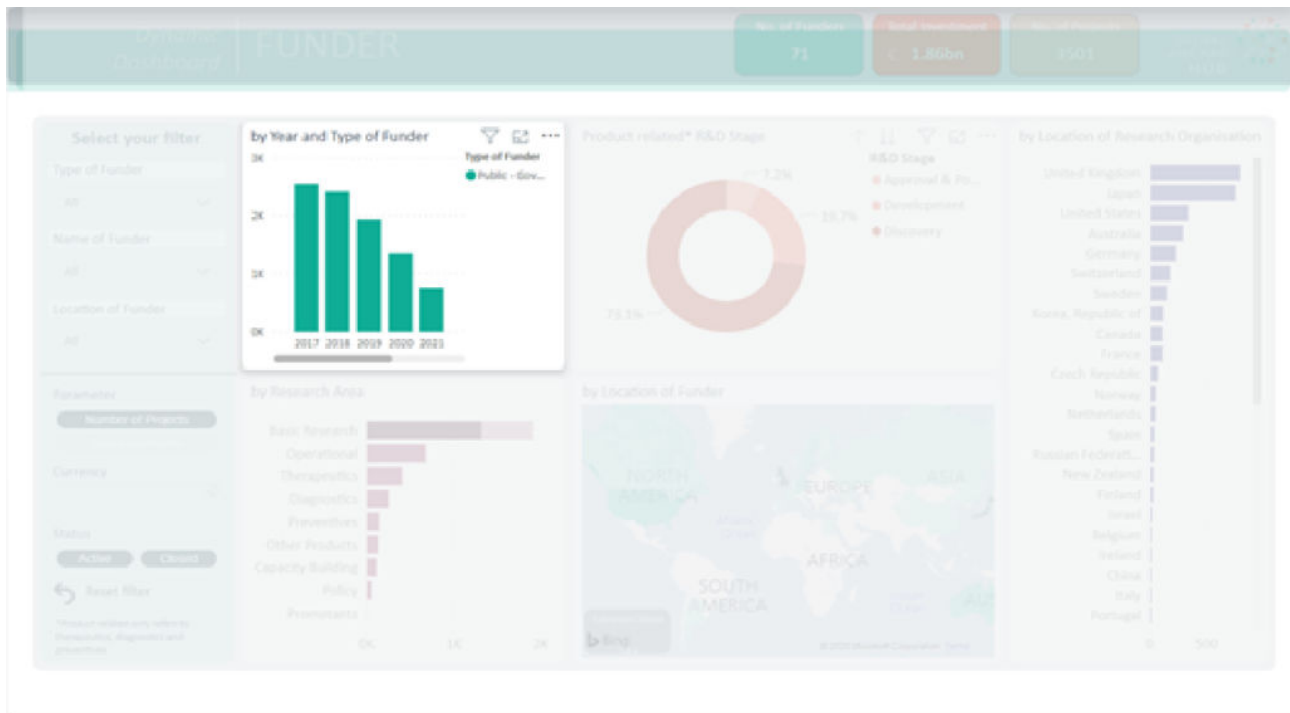
Once you click the icon, the visual fills the whole report area and can e.g. display additional columns of data.
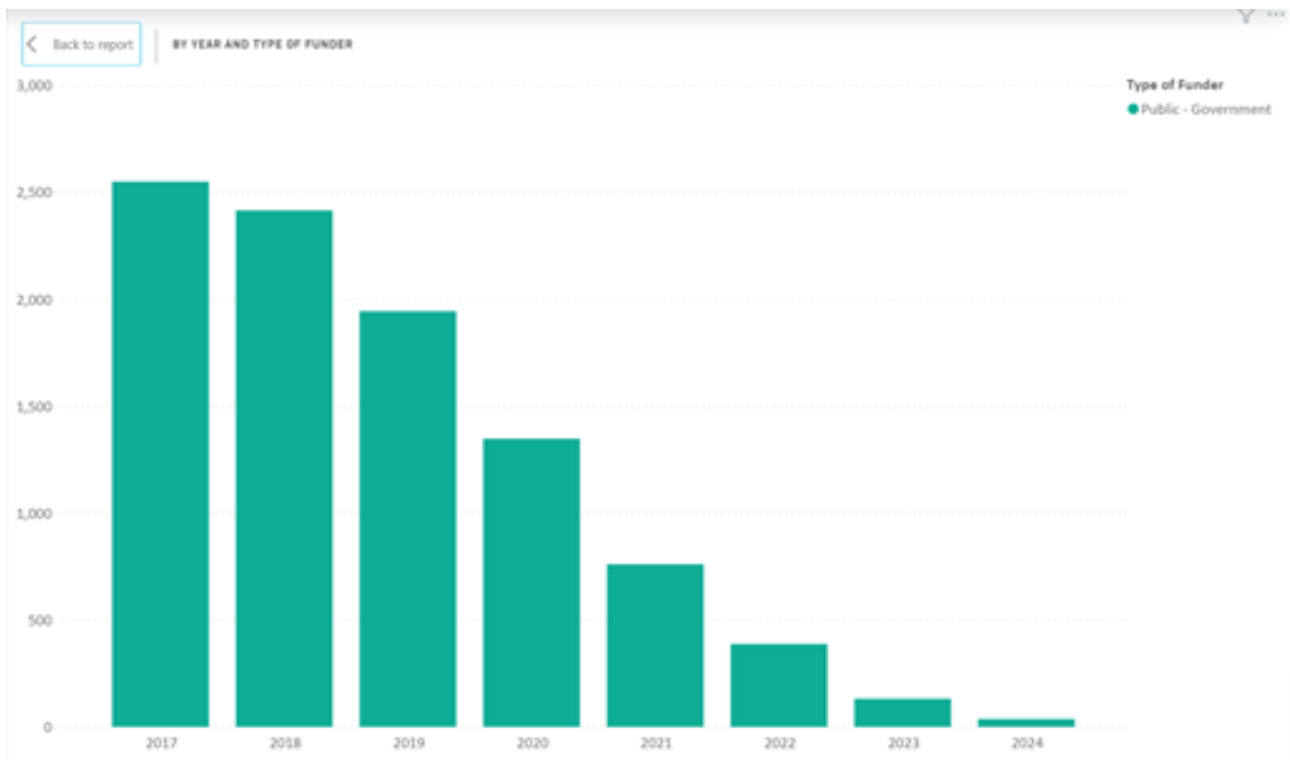

To get back to the previous view, click the Back to report button in the upper left corner of the visual.

Drilling

Sometimes data is defined by attributes that have multiple layers of detail. This is referred to as a hierarchy.

How to identify visuals with hierarchies

If a visual has been designed with such a hierarchy in one of its axes, you will get additional icons in the upper right corner of the visual when hovering the mousepointer over the visual.
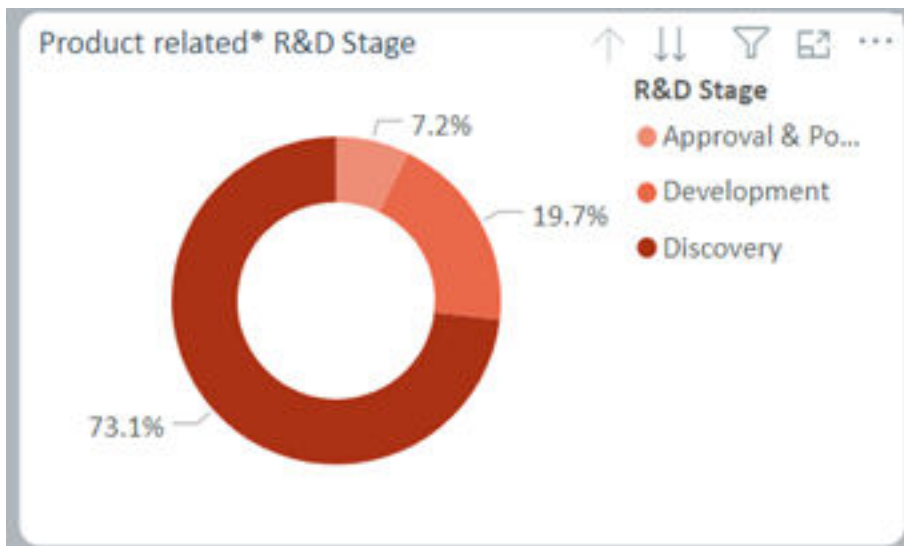
Navigating the levels of a hierarchy

In this example you get an inactive up-arrow, because you are at the top of the hierarchy, and an active double-down-arrow, because there are hierarchy levels with more detail available. Clicking the double-down-arrow takes you to the next hierarchy level.
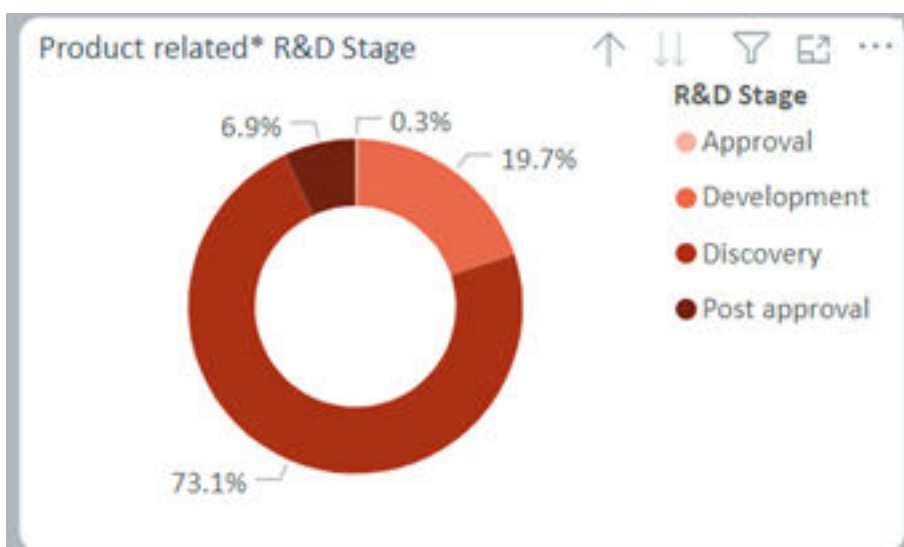

You can now see the Approval & Post Approval slice split up into two distinct slices. The way the hierarchy was designed can not be changed when viewing the report. Note that now the up-arrow

is active and the double-down-arrow is inactive, as we have reached the lowest level of this two-level hierarchy and can only go back up.

Maps

One of the prominent visuals of the Dynamic Dashboard is the map visual. I displays data based on geographical information, currently the country the data refers to. For the European Union, which is not a country, a separate visual has been added, which shows the respective number for the EU.
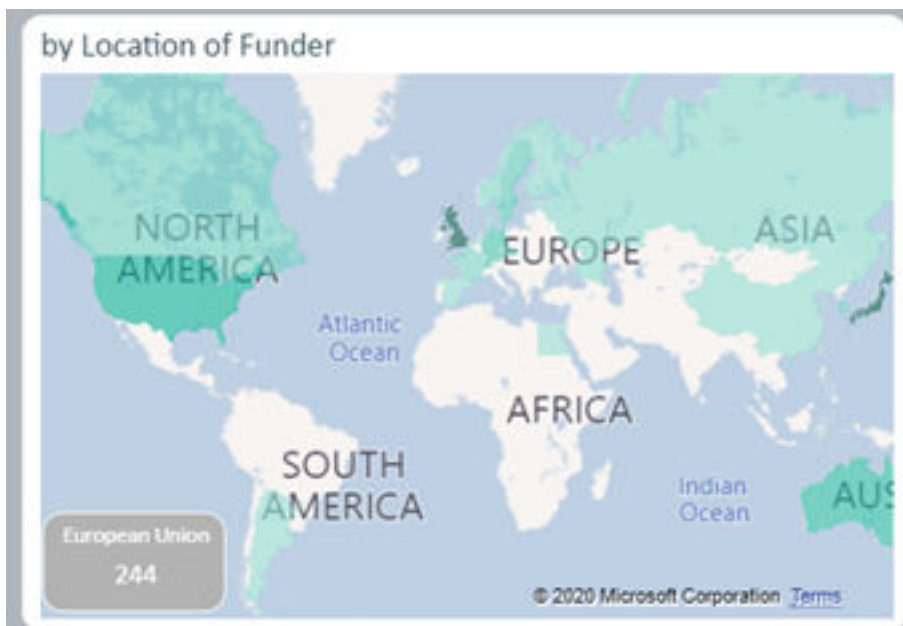
For all actual countries you can hover the mousepointer over the area of the country to get a tooltip of the underlying data. The shading of the color also indicates the value relative to the range of values in the map.
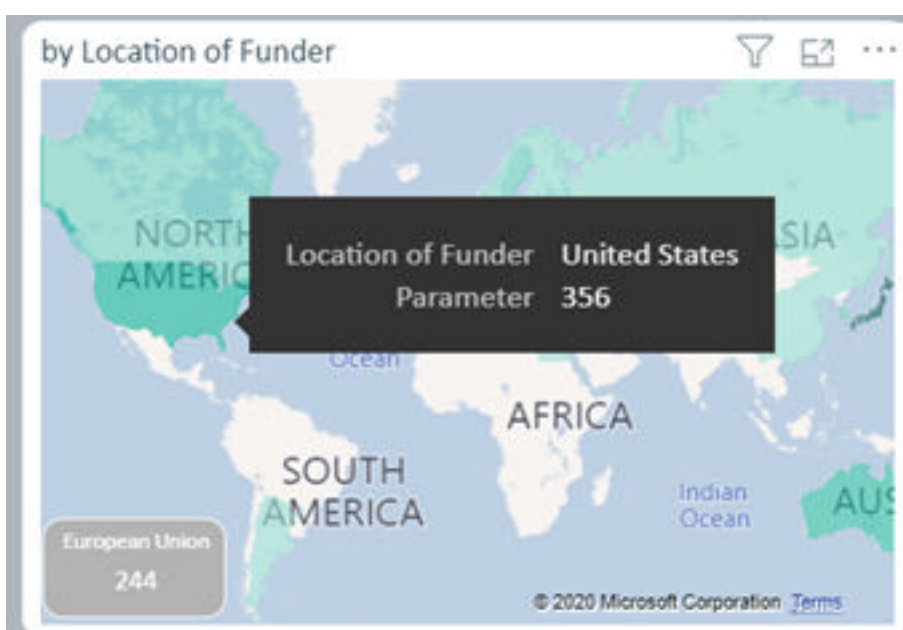
Moving

You can move the map around by clicking and holding the mouse button, while dragging the mouse in the direction you want the map to move.

Zooming

To zoom in or out, you can use the mousewheel. The center of the zooming action will be located at the position of the mousecursor. Note that while hovering over a country the tooltip is being displayed and scrolling is unavailable. To get the desired result, try zooming in/out over the closest body of water or country without data and then moving the map to the desired region.
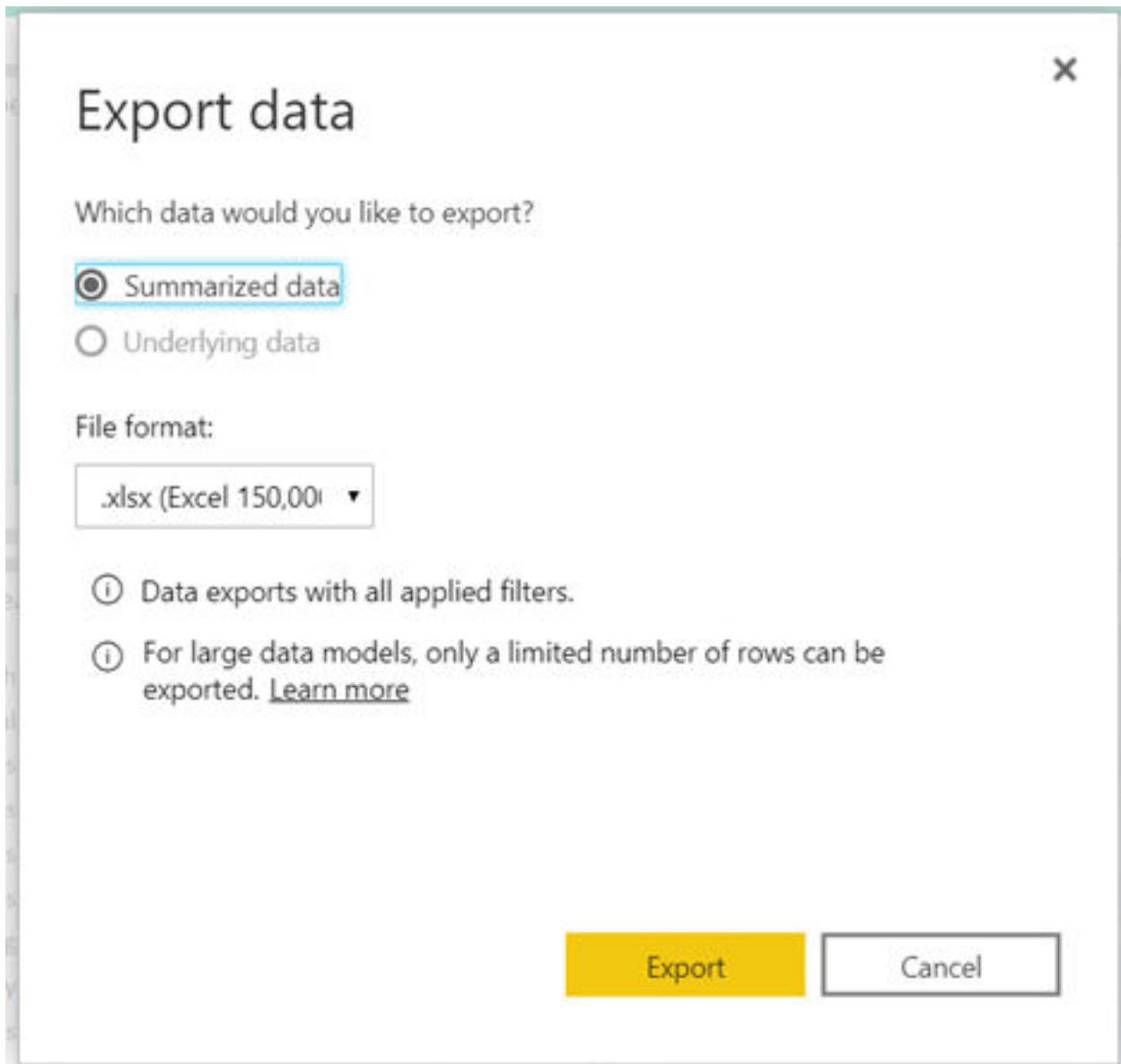
More Options (...)

Another icon in the top right corner of a visual is three small dots, indicating a changing set of further options. Clicking the icon folds out a menu with a list of options depending on what visual you are clicking them on.
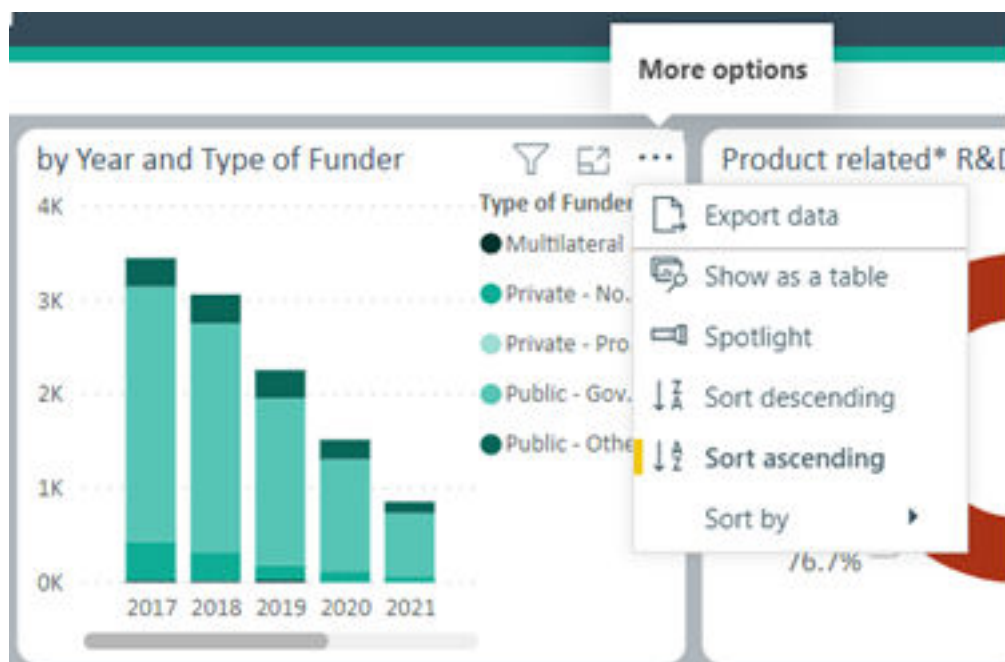
Export data

One versatile feature is Export Data. After clicking it, you get to a menu that lets you export the underlying data. Depending on your permissions, which are somewhat limited for an anonymous user, you can pick what to export.

Export data

Which data would you like to export?

◉ Summarized data

○ Underlying data

File format:

.xlsx (Excel 150,00 ▼)

ⓘ Data exports with all applied filters.

ⓘ For large data models, only a limited number of rows can be
exported. Learn more

Export   Cancel

Available file formats currently include Excel and CSV.

✓ **Successful export**
Your data's been exported.
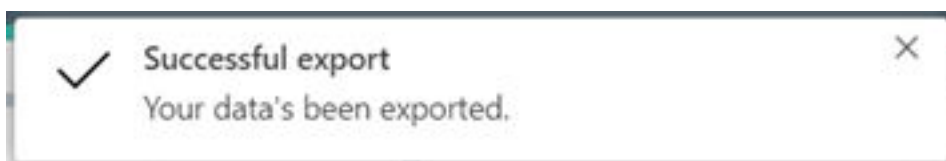
After a successful export, you can reach the file depending on what browser you have been using
and how it has been set up. A common view would be a notification at the bottom of your screen,
like in the image below.

by Year and Type....xlsx   ∧

In this example, the file will contain the data in a regular Excel table.

|	A	B	C	D	E
1	Applied filters:Type of Funder is not (Blank)Currency is $StatusName is Active or Closed				
2					
3	Year ▼	'Measure'[Parameter] ▼	Type of Funder ▼		
4	2017	23	Multilateral Organisations		
5	2017	414	Private - Non Profit		
6	2017	2.707	Public - Government		
7	2017	304	Public - Other		
8	2018	21	Multilateral Organisations		
9	2018	306	Private - Non Profit		
10	2018	4	Private - Profit		
11	2018	2.422	Public - Government		
12	2018	308	Public - Other		
13	2019	26	Multilateral Organisations		
14	2019	156	Private - Non Profit		

**Show as table**

Show as Table combines the Focus Mode view of the visual with a pivoted version of the underlying data. This could look something like in the example below.
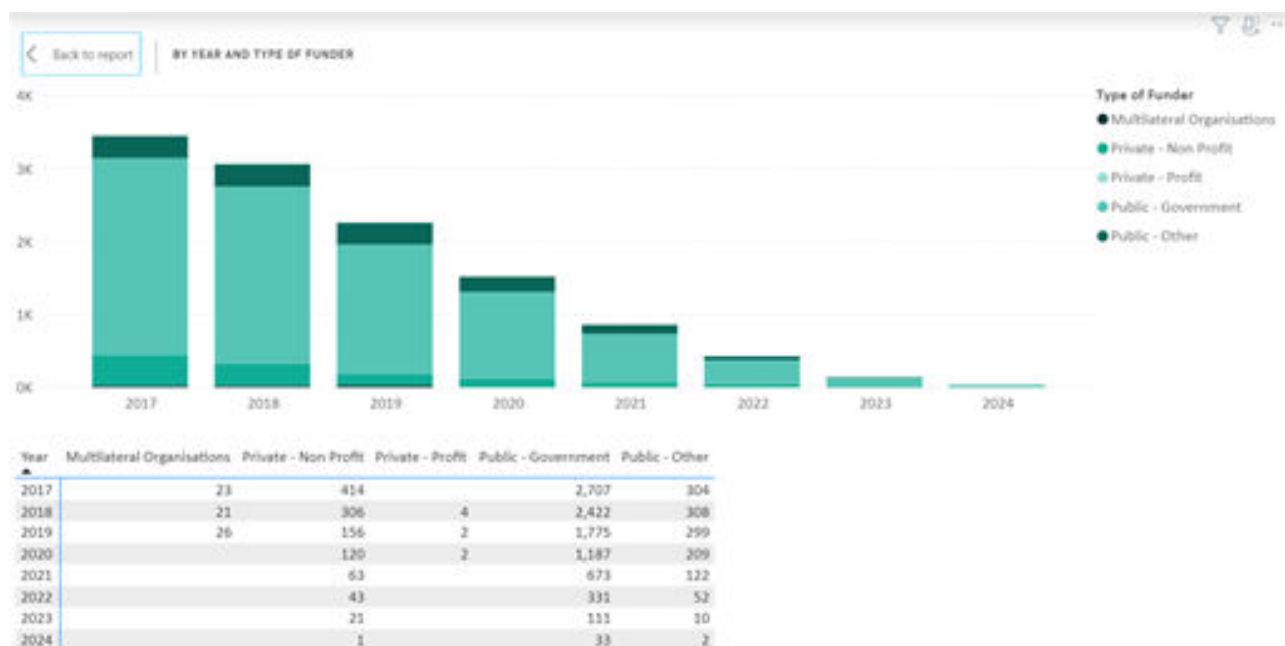

Spotlight

The spotlight feature keeps the selected visual as is, while reducing the saturation of all other elements drastically. This can e.g. help draw viewer attention to the visual you are currently discussing.
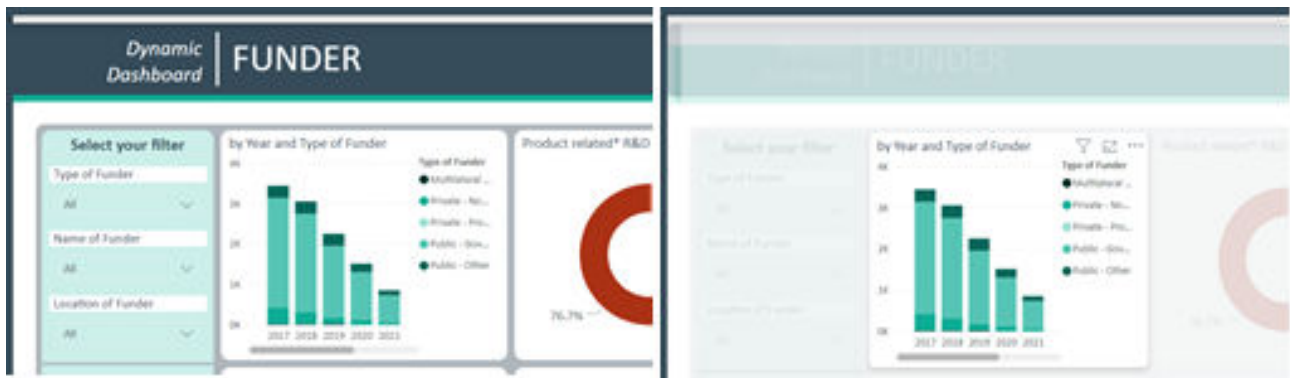
Sort Ascending/Descending/By

The last set of features lets you choose a different sort order than set at design time. This is particularily useful when navigating longer lists like country names that are sorted by a measure, e.g. an amount or count, and you are looking for a particular country. In ist initial stage the example visual sorts the locations of the research organisation by the selected parameter.
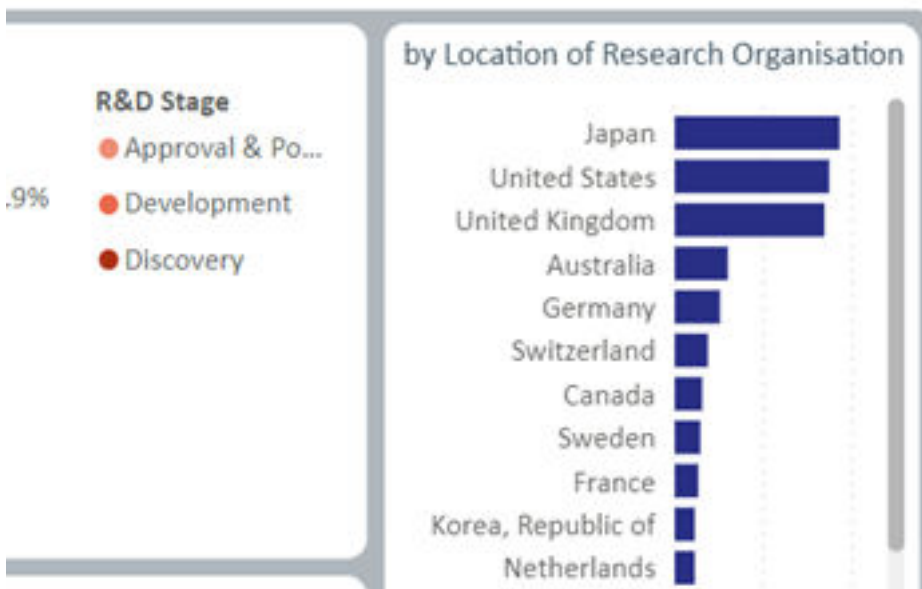
You can now use Sort By to change this so the visual is sorted alphabetically by research location.

Note that, as the measure was sorted descending, now the locations are sorted descending as well.
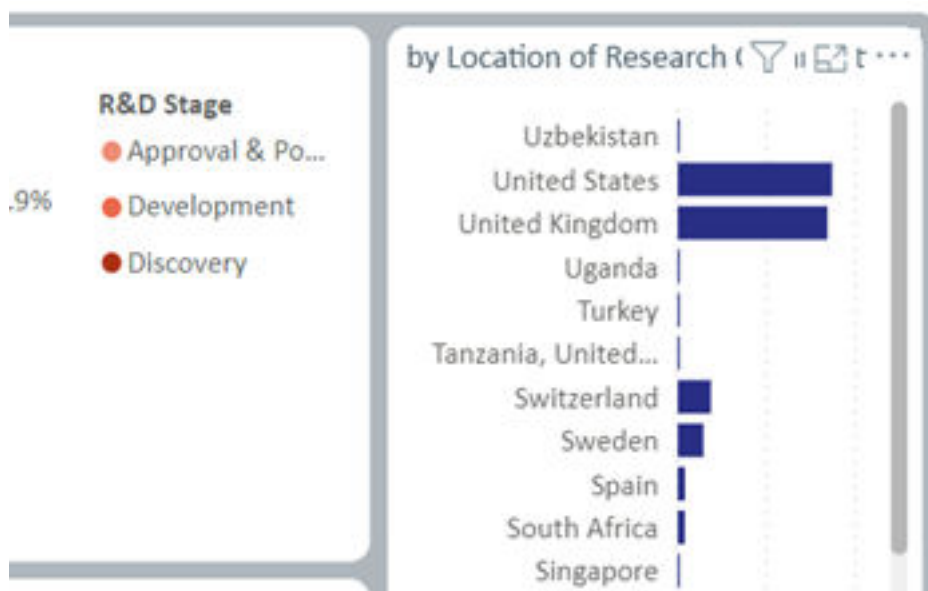
To change that you can simply click Sort Ascending.

by Location of Research Organisation

R&D Stage
- Approval & Po...
- Development
- Discovery

.9%

Export data

Show as a table

Spotlight

Sort descending

Sort ascending

Sort by | Sort ascending

Uzb...
United ...
United Ki...
...
Tanzania, U...
Swit...
S...
Spain
South Africa
Singapore

This results in the alphabetically ascending order of research locations.

by Location of Research (⌕ ॥ ⊡ t ···

R&D Stage
- Approval & Po...
- Development
- Discovery

.9%

Argentina
Australia
Austria
Bangladesh
Belgium
Bolivia
Brazil
Burkina Faso
Canada
Chile
China