

How EU funding contributes to public health and tackles antimicrobial resistance

[Horizon 2020](#) is the biggest EU Research and Innovation programme ever, with €77 billion of funding available between 2014 and 2020. 'Health, demographic change and well-being' is one of the most important areas of EU research funding. The EU devotes a total of €7.4 billion to support health research over this 7-year period.

With our research funding we aim to...

- ... promote [personalised health and care](#) by enabling doctors to better determine the risk of certain diseases and tailor the right treatment for the right person at the right time
- ... foster stronger European healthcare systems by proposing [innovative approaches and technologies](#)
- ... strengthen [health research capacities](#) and innovation strategies across all Member States
- ... make the EU a [stronger global player in health research](#) also by enhancing partnerships between the public and the private sector

Our research projects offer a unique opportunity to improve the quality of life of EU citizens, to stimulate EU industrial competitiveness, and to position the EU as a global leader in health research. We support solution-oriented research projects which lead to the development of new medical treatments and promote evidence-based healthcare.



One of the specific challenges we address is....

Antimicrobial resistance (AMR)

AMR is currently responsible for an estimated 700,000 deaths annually around the world.

Through significant investments in innovation and international coordination efforts, the EU has contributed to creating the momentum for leaders worldwide to recognise the threat antimicrobial resistance poses to citizens and agree to tackle it jointly.

Since 1999, the EU has spent more than €1.3 billion on AMR research to ensure antimicrobials are used appropriately, prevent microbial infections and their spread, improve monitoring and surveillance and, of course, promote research and innovation to develop new effective antimicrobials or alternatives for treatment or prevention. The implementation of an EU action plan against the rising threats of AMR (2011-2016) has enhanced public-private collaboration, open data sharing and coordination of national AMR research efforts.

The EU organises its efforts through...

... [collaborative research projects](#) where world-leading scientists join their efforts in transnational research consortia to address AMR

...the inception of the world's biggest [public-private partnership](#) in the field of AMR - the [New Drugs for Bad Bugs programme \(ND4BB\)](#) developed under the [Innovative Medicines Initiative \(IMI\)](#)

... the launch of the [Joint Programming Initiative on AMR](#), which now has 23 members and aims to increase the [coordination of AMR research worldwide](#)

... [an inducement prize](#) of €1 million, the '[Better Use of Antibiotics' Horizon Prize](#) for the development of a rapid diagnostic test for upper respiratory tract infections that can be safely treated without antibiotics

EU investment on AMR has led to...

... support in the bringing-to-market of [a finger prick test](#) that can almost instantly diagnose an infection, identifying whether a patient can be treated without antibiotics (Better Use of Antibiotics Horizon Prize winner)

... [antimicrobial coatings for implants](#) that will help to prevent infections of implants such as hip or knee replacements, which have been created through the [IDAC](#) and [COATIM](#) projects

... [diagnostic tools](#) to identify pathogens that caused the infection as well as their drug resistances developed by the [Chips4Life](#) and [RiD-RTI](#) projects

... [the Coordinated Control Plan for antimicrobial resistance](#) (AMR), which co-finances Member States for the harmonised monitoring and reporting of antimicrobial resistance

... policies that promote a [more prudent use of antibiotics](#) through the [ARNA](#) project

... [close collaboration](#) with the OECD and the European Observatory on Health Systems to analyse Member State policies on AMR, EU governance structures and actions to combat antimicrobial resistance

... a drug discovery platform for testing and [optimising future drug candidates](#) developed by the [ENABLE](#) project

Proven were...

... [correlations](#) between antibiotic treatment and the risk of becoming infected with resistant bacteria was demonstrated through the [SATURN](#) project

... that antibiotics should [not generally be prescribed](#) to patients with uncomplicated lower respiratory tract infections with the [GRACE](#) project

In the pipeline...

... [detection of bacterial infections](#) via the pattern of genes and proteins activated by the child's immune system in response to the infection through the [PERFORM](#) study

... development of [entirely new methods to fight bacteria](#), so treatments that will not use antibiotics, such as in the [PHAGOBURN](#) project

... identification of new ways of getting potential antibiotics into bacteria and [preventing bacteria from destroying or expelling the drugs before they can take effect](#) by the [TRANSLOCATION](#) project

... consultation with stakeholders to develop and test [new business and stewardship models](#) for antibiotic development by the [DRIVE-AB](#) project

... building of a [high-quality clinical and laboratory network](#) of over 700 hospitals and 500 laboratories to evaluate new antibiotics for treatment and prevention of infections by the [COMBACTE-NET](#) project

The EU will continue to scale up its fight against AMR with the [launch of a second action plan in 2017](#), which will focus on supporting Member States and making the EU a best practice region on AMR; boosting research, development and innovation against AMR; and shaping the global agenda on AMR.