A health threat emerging anywhere on the planet can quickly affect the rest of the world. Infectious diseases now spread faster and farther and know no borders. That is why the rapid development of health technologies right from the outset of an emerging infectious disease outbreak is vital. This was highlighted when Ebola struck in West Africa in 2014, and is now evident again in the battle against COVID-19.

The European Commission has invested heavily into research on preparedness and response to infectious disease outbreaks, including for a public health emergency like COVID-19, by:

- Investing in developing clinical networks and research infrastructures to ensure preparedness to deliver clinical research;
- Boosting epidemiology research and modelling to develop better monitoring systems;
- Launching emergency research funding mechanisms.

**Working on a European and global scale**

The COVID-19 pandemic has confirmed the importance of planning and investing in research and innovation before a health crisis occurs. Dialogue and collaboration between relevant
organisations before an outbreak is key to supporting international and national research plans and infrastructures. Some examples:

- As the need for stronger global collaboration in research preparedness became increasingly clear, the Commission, alongside other funders, established the **Global Research Collaboration for Infectious Disease Preparedness (GLoPID-R)** network. It is an alliance of research funding organizations across the world that facilitates effective and rapid research response to outbreaks of infectious diseases by identifying priority research needs and coordinating global research efforts.

- The European and Developing Countries Clinical Trial Partnership (EDCTP), established in 2003 by the European Commission, together with European and sub-Saharan African countries, exists to accelerate the clinical development of health technologies for poverty-related and (re-)emerging infectious diseases. Two major EDCTP initiatives, **PANDORA-ID-NET** and **ALERRT**, were established to strengthen the capacities of African countries to respond to infectious diseases outbreaks.

- To ensure that clinical research is built into epidemic responses, the EU-funded **Platform for European Preparedness Against (Re-)emerging Epidemics (PREPARE)** was established. This network for clinical research studies responds to outbreaks, provides real-time evidence for clinical management of patients and informs public health responses. A follow-up project **RECOVER** gathers comprehensive data from clinical and epidemiological studies, to further strengthen Europe's clinical research preparedness for future emerging infectious diseases.

### Research and innovation projects

Investing in preparedness and response actions, projects and initiatives remains a top priority for the European Commission. Some examples:

- **ZAPI** project works to enable a swift response to new infectious diseases by designing new manufacturing processes for delivering effective control tools against (re-)emerging zoonotic diseases.

- **VEO** project established an interactive virtual observatory for the generation and distribution of high-quality actionable information for evidence-based early warning, risk assessment and monitoring of emerging infectious diseases threats.

- **MOOD** project aims to develop innovative tools for the early detection, assessment, and monitoring of infectious disease threats across Europe.

Moreover, the Commission has required **all** Horizon 2020 consortia with research outputs that may, in any way, be used to advance the research on COVID-19, to provide immediate **open access** to their related publications/data. The research projects are expected to apply the principles established in the **Statement on Data Sharing in Public Health Emergency**, where the Commission is signatory.
New projects responding to the COVID-19 crisis and future epidemics

Building on previous investments, and responding to the current and future crises, the Commission launched an emergency call (January 2020) through which 18 projects, involving 151 teams from across Europe and beyond, were granted funding. Some examples:

> **I-MOVE-COVID-19** project aims to obtain epidemiological, clinical and virological information on coronavirus and infected patients through a surveillance network. Such networks are key to be able to effectively understand and manage the spread of the virus.

> In collaboration with European Centre for Disease Control (ECDC), we aim to identify and understand the consequences of epidemic-control decisions. The **EpiPose** project strives to understand the social dynamics of, and the public health response to, the COVID-19 pandemic.

> **Exscalate4CoV** project is exploiting powerful computing resources to identify molecules capable of targeting coronavirus and develop an effective tool to counter future pandemics.

**Horizon Europe (2021-2027)**

*Horizon Europe*, the next research and innovation framework programme, will further build on these investments, promoting and protecting human health and well-being, for a healthier society. Capitalising on, and further strengthening, our investments in research and innovation for infectious diseases will allow us to be better prepared for future epidemics and equipped for their recovery.