CEPI 3.0 STRATEGY

(2027-2031)

www.cepi.net

Our mission is to accelerate the development of vaccines and other biologic countermeasures against epidemic and pandemic threats so they are accessible to all people in need.

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Executive Summary

CEPI was created to solve hard challenges. Our vision is a world in which epidemics and pandemics are no longer a threat to humanity. Our mission is to accelerate the development of vaccines and other biologic countermeasures against epidemic and pandemic threats, so they are accessible to all people in need.

CEPI 3.0 builds on the achievements and lessons of our first decade, translating them into a strategy focused squarely on delivery, resilience and impact.

We view epidemic and pandemic preparedness as mutually reinforcing – and we have generated proof points that the 100 Days Mission is an operationally achievable reality in the not-too-distant future. It is with this lens that we developed our next strategy: CEPI 3.0. CEPI 3.0 delivers something no other institution provides: an integrated global system that gives the world a measurable head start against both known and unknown viral threats. By advancing development of vaccines for today while building adaptable platforms, viral-family knowledge and ready-to-activate capabilities, we can cut response timelines from years to months. By 2031, our strategy will help build capabilities so that the world is ready and capable of rapid, equitable response when outbreaks occur. We will do this by developing vaccines and capabilities for today's epidemic risks in ways that simultaneously strengthen preparedness for future pandemics.

CEPI occupies a unique position in the global health security ecosystem. We are a global organisation with an explicit mandate to integrate scientific innovation and equitable access. We bridge public and private sectors, connect global and regional efforts, and we operate at the intersection of health, science and security. We are approaching the future with a bold strategy that builds on a track record and lessons learned from the last decade, focusing on investments that remain high value for money and consistent with industry standards.

First, we will pursue an **integrated viral-family approach** to vaccine development – delivering response-ready vaccines and reserves for known epidemic threats while building a systematic knowledge base across high-risk viral families. This approach provides a critical head start against future "Disease X" scenarios and ensures that progress against known pathogens strengthens broader pandemic readiness. Artificial intelligence (AI) will be applied responsibly to improve vaccine design, accelerate decision-making, shorten development timelines and counter the risk AI itself may pose to humanity. In CEPI 3.0, we will cover the majority of viral families identified by the World Health Organization (WHO) – giving the world a scientifically grounded head start on approximately three quarters of the viral families deemed as high risk.

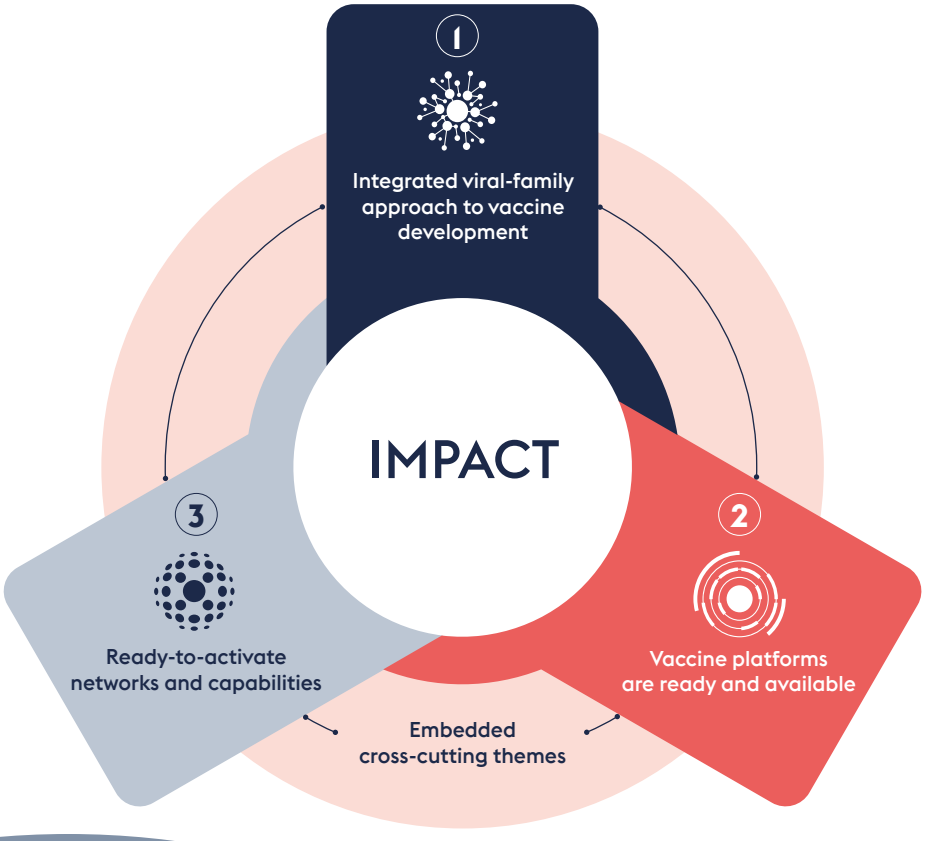
Second, we will ensure **vaccine platforms are ready and available**. CEPI will invest in vaccine-making technologies that enable faster, more affordable and more accessible production, and embed these platforms within regional vaccine ecosystems. Sustainability is key: platforms must be usable in emergencies and routine settings so that capacity is ready when needed.

Third, we will support **ready-to-activate networks and capabilities**. Regional ecosystems will be strengthened, connected and regularly tested. Building such capabilities will help respond more effectively when outbreaks occur, not only protecting lives, but also furthering our scientific knowledge of vaccine development, enabling us to improve response times and ensure readiness is repeatable.

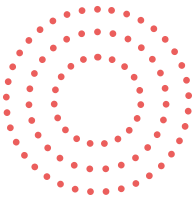
Across all priorities, CEPI 3.0 is underpinned by **cross-cutting themes**: **cutting-edge innovation, including responsible use of AI; a foundational commitment to equitable access; regional partnerships; and biosecurity**. These themes shape how we design programmes, select partners and measure success.

CEPI will not act alone. Our strategy relies on partnership with others. CEPI 3.0 is about making the world safer and more secure – saving lives quickly, reducing risk, minimising disruption and ensuring innovation reaches those who need it most. With sustained commitment and collective action, we can ensure that the next epidemic or pandemic meets a world that is ready.

CEPI 3.0 Strategy (2027-2031)



Context



Infectious disease threats are increasingly diverse, unpredictable and fast-moving.

Spillover events and reported deaths are rising by nearly 5% annually.[1] Africa experiences more than 100 outbreaks each year, and in 2024 alone, over 80 infectious disease events were reported in the Americas.[2,3] Since 2005, the World Health Organization (WHO) has declared eight Public Health Emergencies of International Concern (PHEICs). While we cannot predict with precision where – or what – the next outbreak will be, evidence is clear that they are inevitable. Left unchecked, outbreaks can rapidly escalate, causing widespread health, economic and social disruption. COVID-19 starkly demonstrated how quickly a novel pathogen can upend economies, disrupt trade and supply chains, strain governance mechanisms and affect millions of lives. **Emerging technologies are further reshaping this risk landscape: Artificial Intelligence (AI) is accelerating the generation and application of biology, with implications that extend well beyond public health into economic and security domains.**

In an increasingly fragmented world, inequities in preparedness make outbreaks longer and more dangerous. Pathogens do not respect borders; when the necessary tools and countermeasures are inaccessible, outbreaks can spread rapidly across regions. **Yet the scientific means to stop outbreaks before they become epidemics or pandemics are within reach**.

To deliver this, the world needs to invest in partners and capabilities to allow us to respond rapidly, effectively and equitably to any threat that hits us. These investments must be regionally relevant, economically feasible and durable – building sustainable, affordable capacity rather than relying on ad hoc surge responses. Preparedness is not optional: it is a strategic imperative to shorten response timelines and shift the global system from reactive crisis management to lasting resilience.

Despite the risks, the world has relied on a reactive stance, mobilising only after crises strike. Responses continue to be fragmented, slow and inequitable, with disproportionate impacts on low- and middle-income countries (LMICs). Persistent financing gaps, uneven political commitment, weaknesses in surveillance and manufacturing capacity, and divergent regulatory pathways undermine readiness. At the same time, climate change and urbanisation are increasing outbreak likelihood. While AI offers transformative promise, it also potentially lowers barriers to the design of novel pathogens and narrows the distance between intent and misuse. **Together, these forces heighten both the probability and potential impact of biological threats, underscoring the urgent need for preparedness tools that blunt both natural and deliberate threats alike.**

[1] Meadows et al. (2023): Historical trends demonstrate a pattern of increasingly frequent and severe spillover events of high-consequence zoonotic viruses. Available at: https://gh.bmj.com/content/8/11/e012026

[2] Mboowa et al. (2025): Africa in the era of pathogen genomics: unlocking data barriers. Available at: https://pmc.ncbi.nlm.nih.gov/articles/PMC12186284/

[3] Pan American Health Organization (2025): Epidemic Intelligence. Available at: https://www.paho.org/en/topics/epidemic-intelligence

CEPI is part of the solution

Since its founding in 2017, CEPI has become a core pillar of the global health security architecture. Our success derives from a clear focus: to advance medical countermeasures against epidemics and pandemics, while strengthening the capabilities that enable countries and regions to respond to the threats of today *and* tomorrow. Recent experience has shown that preparedness without equitable access leaves critical vulnerabilities. Deep inequalities – within and between countries – make outbreaks more deadly, prolonged and disruptive[4].

CEPI is uniquely positioned to translate advances in vaccine research, development and manufacturing into global impact. As an investor, CEPI responsibly backs cutting-edge innovations that accelerate vaccine development and pursues equitable access by design. As a convenor, we bring together governments, academia, industry and civil society to foster whole-of-system solutions. As a partner, we continuously learn and adapt, evolving in real time as the threat landscape changes.

Our track record demonstrates we can deliver. Over the past decade, CEPI has mobilised more than US$ 4.25 billion, supported development of over 50 vaccine candidates and 25 vaccine production platforms, and – in collaboration with partners – helped establish geo-diverse R&D and manufacturing capacity. Key milestones have included:

- **CEPI 1.0 (2017–2021):** Established CEPI as an innovative global coalition focused on epidemic preparedness, delivering historic firsts such as the first Lassa and Nipah vaccine candidates entering Phase 1 trials, and the launch of ENABLE, the world's largest Lassa epidemiology study.
- **COVID-19 response**: CEPI moved rapidly, providing early at-risk funding for vaccine candidates, co-leading the establishment of COVID-19 Vaccines Global Access (COVAX), and supporting global manufacturing scale-up to expand access in LMICs. CEPI supported 14 vaccine candidates, including the first AI-designed vaccine; four achieved emergency use listing for global use and three received domestic approval. COVAX delivered nearly 2 billion doses to 146 countries, averting 2.7 million deaths.
- **The 100 Days Mission (100DM):** In 2021, CEPI inspired the world by articulating the goal of developing and authorising safe, effective and accessible vaccines within 100 days of identifying a new pandemic threat[5]. Governments, industry and civil society have since embraced and embedded this goal in their own strategies[6].
- **CEPI 2.0 (2021–2026):** Focused on investing in the building blocks needed to make the 100 Days Mission a reality. CEPI expanded vaccine development investments, rapid-response platforms, next-generation vaccine innovations, and established several R&D and manufacturing networks. We advanced multiple "firsts" for pathogens, including the first vaccines against Lassa, Nipah and MERS to enter Phase 2 trials, and supported technology transfer of the first licensed chikungunya vaccine to endemic manufacturers. We also expanded our understanding of what it takes to achieve the 100DM by testing capabilities through responding to real-world outbreaks. Importantly, we have embedded equitable access in our efforts from the outset – through deep partnerships that ensured the right products were developed, available at the right time and price, and sustainable over the long term.

[4] Marmot M. We must break the inequality-pandemic cycle. BMJ. 2025;391:r2302. doi:10.1136/bmj.r2302

[5] 100 Days Mission to respond to future pandemic threats – A report to G7 by the pandemic preparedness partnership. Available at: https://www.gov.uk/government/publications/100-days-mission-to-respond-to-future-pandemic-threats

[6] Countries including UK, Japan, Rwanda, India, South Korea, Singapore, Canada, South Africa, Brazil, France, Germany, Italy, USA, Saudi Arabia, Australia, Russia, UAE, Netherlands, Ireland, and Malaysia have engaged with or endorsed the 100 Days Mission, including through the G7 and G20, as well as national activities or strategies. (Reference: tracking by International Pandemic Preparedness Secretariat; noting that Member State engagement is administration dependent).

From Reaction to Readiness: the new paradigm for epidemic and pandemic preparedness

As we move to CEPI 3.0, our organisation builds on transformative advances in vaccine science, a maturing coalition, and a strong delivery record grounded in several key learnings:

Vaccines are necessary, but not sufficient. Availability of safe and effective vaccines must be matched with trusted partnerships, government leadership, regulatory agility, operational readiness and community engagement. Rwanda's initiation of a Marburg vaccine trial just 10 days after outbreak detection in 2024 was enabled not only by access to investigational doses, but by preparedness across the system. It is not enough to invest in vaccines; we also need to invest in the systems and capabilities that support readiness. True readiness is dynamic and depends on a set of capabilities spanning *early detection, accelerated vaccine development, regulatory readiness and resilient scalable supply.*

Vaccine development itself builds readiness. Every vaccine programme is an opportunity to build and stress-test geographically anchored capabilities. CEPI's investments in Lassa, for example, strengthen partnerships and systems that can accelerate responses to other threats in West Africa – much as polio investments enabled Nigeria's rapid containment of Ebola in 2014.

Epidemic and pandemic preparedness are mutually reinforcing. Developing vaccines for known threats on relevant rapid-response platforms simultaneously strengthens readiness for unknown "Disease X" threats. This approach delivers impact today while preparing for tomorrow.

Delivering the 100 Days Mission depends on innovation and partnership. Responding quickly in a crisis requires ready-to-use platforms, scalable manufacturing technologies, and tools/innovations such as AI. It also requires strong partnerships that bring surge capacity, late-stage development expertise and manufacturing reach. Thoughtful approaches to enable use of the technology and the underlying intellectual property by partnering with industry stakeholders at the outset can help ensure innovations are accessible, relevant and impactful for all.

The 100DM can be tested as its component parts. Not every outbreak requires a full suite of 100DM capabilities end to end. By breaking the 100DM into component capabilities and testing them – through vaccine programmes and responses to outbreaks – we can measure progress, close gaps and build confidence without waiting for the next pandemic. Several responses during CEPI's existence – including COVID-19, Marburg, Rift Valley fever and more – have demonstrated proof points that this is possible.

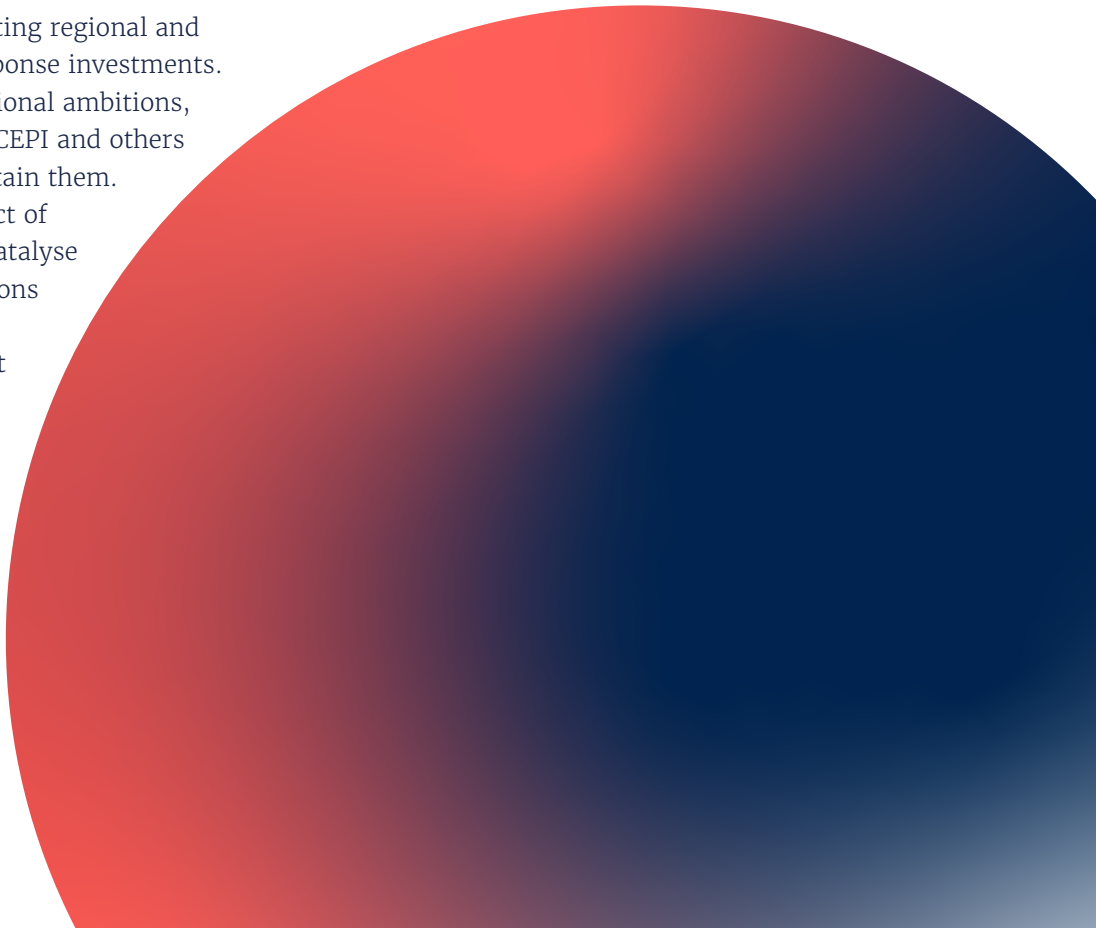
CEPI 3.0 aims to make the 100 Days Mission an operational reality

Imagine an outbreak of an unknown pathogen in 2031. Early-warning systems and AI-enabled analysis trigger rapid, locally-led responses. CEPI activates pre-agreed mechanisms to design immunogens through its consortium; initiates trials and enabling science activities through its R&D networks; transfers technology to capable regional institutions in the vaccine manufacturing facility network; engages regulators early to anticipate requirements; and rapidly scales production in an equitable way. Important efforts including financing and biosecurity move in parallel. CEPI's end-to-end approach to equitable access ensures seamless transitions between CEPI and partners during procurement and deployment. In this scenario, many of these capabilities and handoffs will apply even in a more predictable "known" threat scenario. For example, an outbreak of Nipah virus in South-East Asia would draw immediately on existing CEPI-supported candidates, research networks and regulatory engagements in the region in order to accelerate evidence generation, approval, and support regional manufacturing.

To be impactful, capabilities must be geographically anchored – and continuously improved

To ensure that no one gets left behind in an outbreak, each region needs to be prepared. Collectively, this allows for faster, more effective and more equitable responses. However, building capabilities is not the role of a single organisation or institution. Regional and national leadership is essential. CEPI's investments must add up to credible, regionally relevant contributions to the 100DM, that plug into existing regional and national preparedness and response investments. This means understanding regional ambitions, existing capabilities, and how CEPI and others can co-invest to build and sustain them. As well as increasing the impact of CEPI's investments, this will catalyse more co-investment from regions and countries. To be available when needed, capabilities must be sustainable, integrated and continuously improved through practice. They therefore need to be used routinely and then pre-positioned, tested and refined for outbreak response – whether through vaccine development programmes, or in real-time responses to outbreaks.

By embedding this continuous cycle of building, testing, learning and improvement, we aim to transform the 100 Days Mission into an operational reality. Together, this will deliver towards our desired impact of saving lives quickly, reducing risk, minimising disruption and making innovation accessible.



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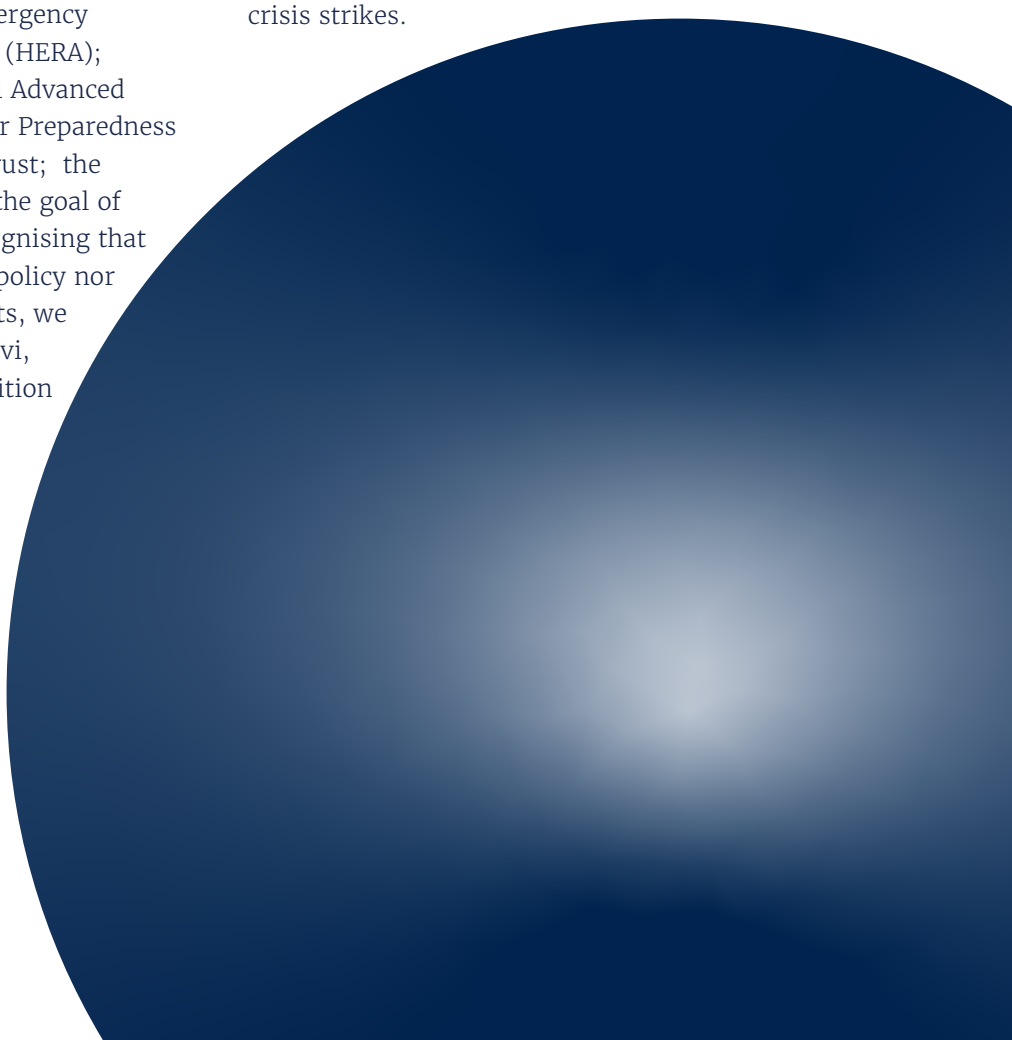
CEPI relies on partnership and cannot act alone

CEPI combines investing, advocacy and catalytic actions to link science, policy and operations across the vaccine value chain. We directly fund and test projects and programmes that accelerate vaccine development and strengthen broader capabilities. Beyond investing, we leverage our convening power and thought leadership to shape global frameworks, mobilise political will, and foster alignment across countries and institutions. In this role, we aim to drive impact beyond our own direct investments and mobilise others to join us.

CEPI cannot achieve its vision alone; as an actor primarily focused on upstream R&D, we need to coordinate with ecosystem partners to ensure that investments are coherent, impactful and aligned to priorities. Our work in CEPI 3.0 will build on the partnerships we've built to date. For example, we work with WHO to ensure alignment with its normative role in global public health. We have convened regular fora with other medical countermeasure (MCM) funders around the world including the U.S. Biomedical Advanced Research and Development Authority (BARDA); the European Commission Health Emergency Preparedness and Response Authority (HERA); Japan's Strategic Center of Biomedical Advanced Vaccine Research and Development for Preparedness and Response (SCARDA); Wellcome Trust; the Gates Foundation, and others – with the goal of improving coordination of R&D. Recognising that CEPI does not develop immunisation policy nor coordinate downstream delivery efforts, we partner with organisations such as Gavi, the Vaccine Alliance, to plan for transition of R&D investments and to identify the barriers to access where licensure and commercialisation is expected. We engage closely with regional organisations such as Africa Centres for Disease Control (CDC), the Pan-American Health Organization (PAHO), HERA, and Association of Southeast Asian Nations (ASEAN) to align our work with regional strategies and goals. We also engage national leadership to foster country buy-in and relevance of investments in local contexts.

We are cognizant of the limitations of our organisation and recognise that CEPI does not have the resources or mandate to lead in many critical areas – such as disease surveillance – important to response, and so we will rely on partners and collaborations to help us determine when a vaccine countermeasure response is needed. Similarly, CEPI's role in manufacturing is catalytic rather than infrastructure-focused. Unlike institutions that focus on bricks-and-mortar facilities or long-term pull mechanisms (e.g. Advance Purchase Agreements, pooled procurement, or volume guarantees), CEPI's focus is to ensure that platforms are agile, scalable, geo-diverse and interoperable across viral families, and that our partners have access to them. We focus on enabling functions – process improvement, regulatory readiness, tech transfer, standards and surge capacity planning – so that others can deploy financing tools to support scaling production when crisis strikes.



CEPI 3.0 Priorities (2027-2031)

Threats can emerge anywhere. To be ready, the world needs tools and capabilities that can be used against any threat.

Being prepared to execute the 100 Days Mission for any pathogen requires a broad and actionable knowledge base spanning across the viral families most likely to generate outbreaks, alongside demonstrated ability to translate that knowledge into impact through vaccine development for known diseases. Responding quickly to a novel pathogen, in turn, depends on using that knowledge to design new vaccines quickly and translating those designs into products on adaptable manufacturing platforms. CEPI has contributed to the development of such capabilities both directly through technology investments and by establishing globally distributed, integrated and ready-to-activate networks that can be mobilised quickly and equitably to support responses to known and emerging threats.

Taken together, CEPI 3.0 defines three interconnected priorities through which targeted investment, catalytic action and advocacy can drive outsized impact and make the 100DM both achievable and sustainable. With a fully resourced strategy, CEPI will prioritise:

Viral families: Strengthen preparedness for known and unknown threats through an approach that delivers response-ready vaccines for known pathogens and ready-to-use knowledge and prototype vaccine designs for high-risk families to enable rapid response when new viruses emerge. This approach positions the world to close gaps systematically and provides a head start in responding to future Disease X threats.

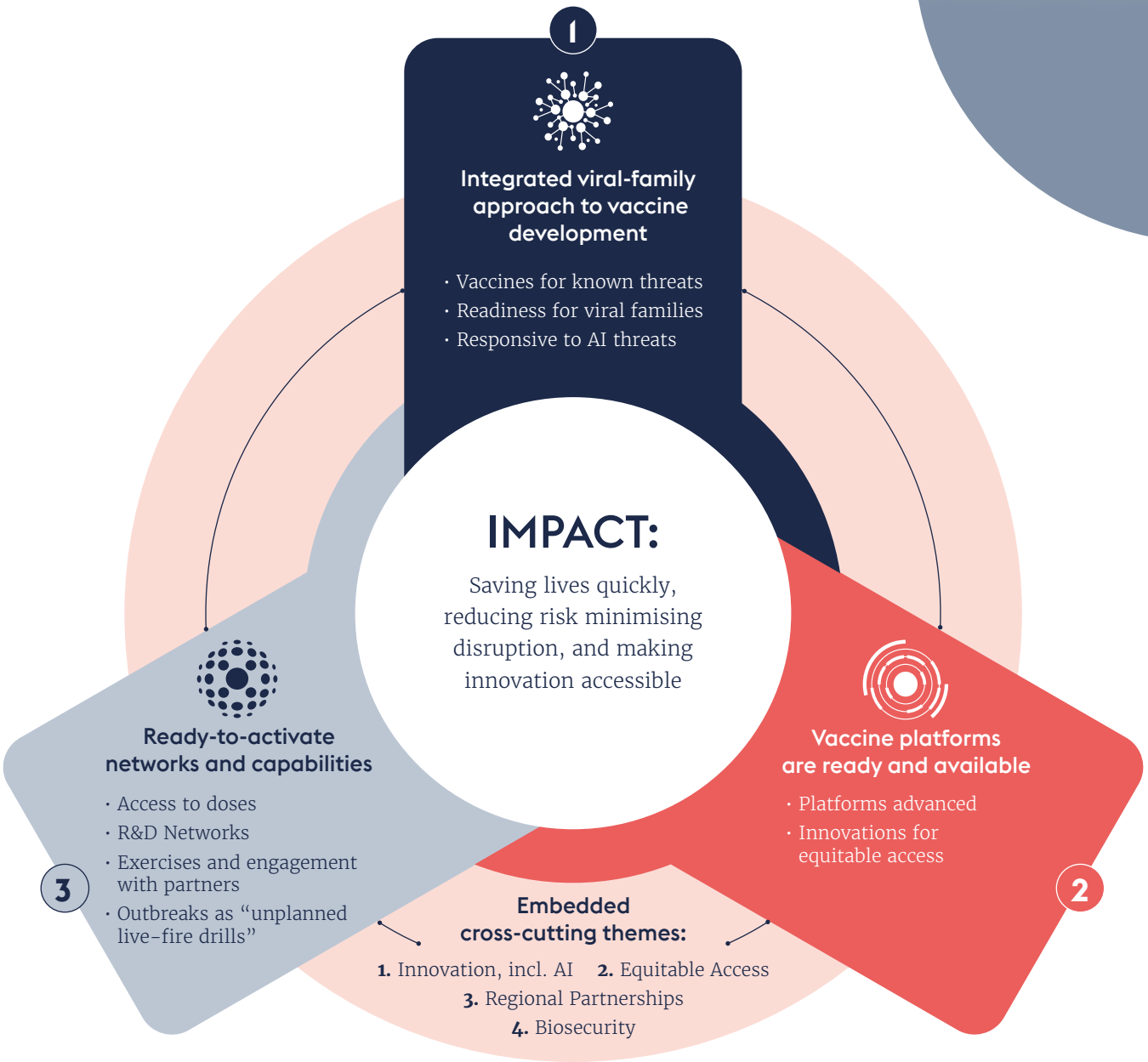
Platforms: Expand and strengthen a portfolio of proven vaccine production platforms that are ready and available to accelerate vaccine development and enable equitable access.

Ready-to-activate networks and capabilities: Build, test and demonstrate 100DM capabilities within and beyond CEPI's R&D and manufacturing networks, ensuring that capabilities can be rapidly and reliably combined to translate scientific advances into timely, real-world impact.

As we implement these priorities, **CEPI will ensure that its programmes embed core organisational values reflected in a set of cross-cutting themes**. These themes will be operationalised through detailed implementation planning in 2026.

1. Innovation, incl. AI
2. Equitable Access
3. Regional Partnerships
4. Biosecurity

Snapshot of CEPI 3.O



Priority Area I: Take an integrated viral-family approach to vaccine development

Evidence from recent years has reinforced a clear lesson: threats can emerge anywhere. CEPI 2.0 responded to this reality by adopting a more expansive investment approach – advancing response-ready vaccines for known threats while also building Disease X capabilities, such as adaptable immunogen design for novel and emerging viruses. As CEPI enters 3.0, we aim to anticipate threats more systematically and close critical scientific and technological gaps across the most urgent and high-risk viral families.

To do so, CEPI will shift from a predominantly pathogen-specific lens to a **viral-family approach**, investing in vaccine candidates grounded in the evolving threat landscape. Focusing on viral families rather than individual pathogens alone can hasten response to emerging threats, while strengthening integration across platforms, products and partnerships to amplify greater impact. This priority establishes the scientific foundation of CEPI 3.0 – the viral-family knowledge and vaccines that reinforce our platform readiness and networks' goals. This viral-family approach aligns with the direction taken by other funders and global health stakeholders, and builds on the foundations established through CEPI's prior investments, including programmes where this shift is already underway (e.g. filoviruses and coronaviruses).

By the end of 2031, we will:

I. Reduce risk from known threats

II. Transition fully to a viral-family approach

III. Catalyse greater viral-family coverage

I. Reduce risk from known threats. CEPI will continue advancing priority pathogen programmes toward planned endpoints, including: one vaccine to first licensure (Lassa); one vaccine expanded for use in LMICs (chikungunya); and three candidates (Nipah, MERS, Rift Valley fever) to Phase 2a, with investigational reserves positioned for rapid deployment during outbreaks to support evidence generation. Further progression toward licensure may occur, contingent on future demand, partner interest in co-financing, and the availability of sufficient data.

II. Transition fully to a viral-family approach. Aligned with WHO's R&D Blueprint and the Collaborative Open Research Consortia (CORCs), CEPI will systematically apply a viral-family lens across its entire portfolio. This shift accelerates responses to emerging threats – including Disease X – by enabling CEPI to build and connect scientific insights, platform technologies and operational enablers across related viruses. Current investments in known pathogens already act as prototypes for the viral families in which they sit, such as Arenaviridae, Filoviridae, Coronaviridae, Paramyxoviridae, Phenuiviridae, Togaviridae, and Poxviridae.

In CEPI 3.0, we are fully aligning with global pandemic-preparedness priorities by targeting the majority of viral families identified by WHO[7] as highest risk. By focusing on viral families rather than isolated pathogens, CEPI is building adaptable scientific and operational platforms that can be rapidly applied to both known and emerging threats.

[7] https://www.who.int/publications/m/item/pathogens-prioritization-a-scientific-framework-for-epidemic-and-pandemic-research-preparedness

This approach means our strategy will cover approximately 75% of the viral families prioritised as highest risk by global scientific experts. Within these families, CEPI is actively addressing high risk pathogens such as Ebola, Marburg, Lassa, Nipah, MERS, SARS, mpox, CCHF, and chikungunya.

Several important families—including Orthomyxoviridae, Flaviviridae, and Picornaviridae—remain outside CEPI's current planned scope. These represent strategic gaps that a fully funded CEPI 3.0 strategy could help fill. Expanding family-level coverage would consolidate a global "head start" capability: vaccine designs, R&D tools, platform improvements and response capabilities developed in one pathogen could be rapidly adapted to others within the same family, strengthening preparedness for both expected and unexpected threats, including engineered pathogens.

Key elements of the viral-family approach:

Prioritisation: Ranking of virus families by estimated risk of producing virulent Disease X.

Vaccine Library/ Knowledge Base: For each prioritized viral-family, this includes viral sequences, receptor-binding proteins, and immunogen-design software.

- A subset of viruses within each family will have AI-aided immunogen designs, with antigenic sequences inserted into cDNA plasmids to create a "library". Antigens are structurally verified by in vitro testing and monoclonal antibody binding.
- A subset of immunogen designs will be expressed on vaccine platforms as exemplar vaccines, with preclinical and clinical trial data generated. Collectively, this creates a knowledge base that will allow the rapid design for any Disease X emergence within that family.

Prototypic or priority vaccine: Targeted to a single virus and extensively tested through preclinical animal studies and human clinical trials to Phase 1 and 2 for the purpose of providing a basis for licensure and/or Emergency Use Authorisation in the event of an outbreak. AI-aided immunogen designs will be broadly available for early development and connected to activated networks of manufacturers for late-stage development, manufacturing and supply. We will look to ensure prototypic vaccines will follow the path of "right roduct, right time, right price, right partner" to ensure access.

In the next strategic cycle, CEPI will make targeted investments to:

- **Develop and contribute to a shared knowledge base** (see call-out) across nine CEPI-supported viral families, comprising critical information that enables rapid design of vaccine antigens for any Disease X emergence within those families. These include families for which CEPI is developing vaccines against prototype pathogens.
- **Advance four new exemplar vaccines** to at least Phase 1, deepening understanding of viral families and scientifically viable vaccine-making technologies, with further development informed by anticipated demand and partner interest in co-financing.
- **Strengthen enabling sciences** across CEPI-supported viral families by generating critical evidence, tools and frameworks – such as assays, reagents, standards and correlates of protection – that can accelerate vaccine development and deployment.
- **Proactively prepare for AI-generated pathogens**. CEPI will invest in the learning and development of capabilities that can guard against the increasing risk of AI-enabled biological threats – so we are ready for viruses designed maliciously to harm society.

III. Catalyse greater viral-family coverage. CEPI will work with the broader ecosystem to address additional high-risk threats by catalysing expanded coverage beyond currently supported viral families. **We will seek to catalyse investment from other MCM funders to ensure broader coverage of urgent and underfunded threats**.

Subject to available resources, CEPI may also directly invest in additional viral families, guided by the evolving threat landscape, feasibility, funding availability and regional priorities. Our initial assessment suggests that **flaviviruses** and **orthomyxoviruses** may be strong candidates for inclusion.

How CEPI will integrate Innovation within this priority area

We will identify and embed innovations that can accelerate and de-risk vaccine development. Several examples already underway include:

Real-time threat assessment: Our current portfolio configuration is based on current knowledge about viral-family risks. However, changing patterns of disease spread, coupled with the impact of climate change, mean that threats can evolve and erupt in unexpected ways; to stay ahead, we'll harness artificial intelligence for early signalling and real-time monitoring and analysis, ensuring investments remain targeted, timely and responsive.

Rapid threat response: We don't know what the next outbreak will be – risks can emerge anywhere and be amplified in devastating ways, as witnessed during COVID-19; in the next strategic cycle, CEPI will continue investing in AI-aided immunogen design to enable fast responses to future threats, including potential engineered viruses from malicious actors. Immunogen design is the process of creating antigens, such as proteins, to elicit a specific and protective immune response. AI tools can help dramatically accelerate our timelines.

Regional partnership is also essential for viral-family investments to be relevant and sustainable. There is increasing political commitment to build capabilities at the regional level. In support of this, CEPI will increase engagement with country and regional partners to align shared objectives and contributions. Regional co-development and local ownership ensure that CEPI's viral-family investments meet the specific needs and priorities of affected countries, strengthen in-country capabilities, reduce reliance on external resources, increase sustainability, build trust, and enable rapid, equitable responses to outbreaks.

CEPI's Lassa programme can act as a model for a regional approach

In 2025, the Lassa Coalition was launched, led by the West African Health Organization (WAHO) with national governments in West Africa including Nigeria, Benin, Guinea, Liberia and Sierra Leone, and with support from CEPI. The Coalition has developed the first Lassa fever vaccine policy research agenda; secured co-financing commitments; and established multi-country collaboration mechanisms. In CEPI 3.0, we will work with the Coalition to build a broader regional platform that can accelerate vaccine R&D and delivery for other pathogens. This regional model embodies the spirit of CEPI's 100 Days Mission: ensuring that the capabilities developed for one disease strengthen preparedness for many.

Priority Area 2: Ensure vaccine platforms are ready and available

Vaccine platforms have the potential to dramatically accelerate vaccine development and regulatory timelines by reusing prior data, experience, and established processes. CEPI's ambition is to enable the use of such platforms for rapid and equitable responses to future outbreaks with epidemic or pandemic potential. Fully developed platforms – those already proven through licensed products – offer the strongest opportunity to accelerate development and authorisation of vaccines against novel threats.

Platforms (see call-out) that are fully developed and proven through licensed products offer the greatest potential to accelerate development and authorisation of vaccines against novel threats in emergency settings. For example, the first mRNA COVID-19 vaccine – developed on an unproven rapid-response platform – reached authorisation in just under a year; subsequent vaccines targeting new COVID-19 strains were authorised in as little as two to three months.

To realise this potential, platforms must be pre-positioned for rapid regulatory authorisation. Today, most National Regulatory Authorities (NRAs) lack clear frameworks for leveraging prior platform knowledge, resulting in inconsistent data requirements and review approaches even within the same authority.

CEPI's current portfolio supports more than 30 early-stage platform candidates and includes partnerships with developers of advanced platforms, including those with licensed vaccines. Existing investments already strengthen manufacturing capabilities across viral vector, protein and RNA modalities within CEPI's manufacturing network. The CEPI 3.0 vaccine platforms priority builds on this foundation, and importantly relies on the knowledge and vaccines generated in our first priority area.

What is a vaccine platform?

A vaccine platform is a well-understood and readily adaptable vaccine-making technology with associated manufacturing approaches.

CEPI's evolving approach recognises that the potential for platform-driven acceleration depends on platform maturity across multiple dimensions, including:

- **Research platforms:** Reuse scientific building blocks to rapidly design and test new candidates with minimal reinvention.
- **Manufacturing platforms:** Provide standardised, scalable, and transferable production processes and facilities that allow multiple vaccine candidates to be produced with limited modification.
- **Regulatory platforms:** Leverage an already-licensed manufacturing process to give regulators predictable expectations, enabling faster authorisation of new vaccines built on same process.

While regulatory platforms offer the strongest opportunity to accelerate development and authorisation of vaccines against novel infectious diseases, research and manufacturing platforms can still meaningfully shorten timelines for emerging threats. Innovations across these dimensions will offer opportunities to speed the development and equitable access to new vaccines.

By the end of 2031, we will:

I. Build a diverse portfolio of vaccine platforms and partners

II. Embed platforms within regional vaccine ecosystems

III. Advance regulatory policies that enable accelerated vaccine development and authorisation

I. Build a diverse portfolio of vaccine platforms and partners. No single platform is likely to address every outbreak scenario. CEPI will therefore develop a diverse, multimodal portfolio of complementary vaccine-making technologies capable of meeting a wide range of preparedness and response needs. For a rapidly spreading Disease X with pandemic potential, speed of development and manufacturing is critical, alongside a strong safety profile to support uptake. In such scenarios, platforms proven through licensed products are important.

Platform selection will consider not only technological attributes but also partner characteristics and access conditions. For large-scale pandemics, established industry partners with scalable capabilities may be best-positioned to meet 100 Days Mission targets. For geographically limited outbreaks, incentives for industry and access to their platforms may be constrained; in these cases, CEPI may support the development of platforms with secured access and identify appropriate Market Authorisation Holders and manufacturers, ideally within affected regions. We will consider these various aspects while building our platforms portfolio. In the next strategic cycle, we will:

- **Advance at least three additional vaccine-making technologies** with potential across multiple viral families to at least Phase 1a (preclinical immunogenicity and safety plus clinical safety). These technologies must demonstrate speed, immunogenicity, efficacy and clinical safety, and include favourable access terms with clear LMIC suitability.
- **Of these, advance at least one potential platform to Phase 2a**, demonstrating clinical immunogenicity and safety. Progressing potential platforms to Phase 1a/2a brings them closer to licensure and use in both emergency and routine settings.

To support sustainability and attract private-sector co-investment, these platform investments will consider commercially viable targets aligned with regional or national needs.

II. Embed platforms within regional vaccine ecosystems. Equitable response within 100 days requires not only suitable vaccines, but also the ability to produce at scale. The best way to ensure sustainability is for a commercially viable product to be associated with the technology. Platforms must therefore be embedded within sustainable, end-to-end vaccine development ecosystems that are regionally anchored and locally owned. In the next strategic cycle, we will:

- **Integrate platform technologies within end-to-end vaccine development ecosystems** in at least one region; we will evaluate ecosystem readiness in the region, identify and bridge gaps through targeted activities such as system strengthening, tech transfers, partnerships and training. This builds on existing manufacturing investments across five current Vaccine Manufacturing Facility Network (VMFN) partners in Latin America, Africa and Asia.
- **Support sustainability of platform capabilities** by enabling multi-use platforms that serve both emergency response and routine commercial vaccine production.
- **Ensure operational readiness for rapid use in outbreaks**, including through pre-positioned access terms and contractual arrangements that enable rapid mobilisation, such as timely transfer of immunogen designs.

How CEPI will integrate Regional Partnerships in this priority area

Platforms that have applications beyond pandemic preparedness are more likely to be economically sustainable, and as a result be there when we need them. This requires early engagement with regional partners to identify which platforms align with local priorities; for example, platforms that are used to produce commercial, locally relevant, suitable and affordable vaccines in inter-outbreak periods, and which can pivot to emergency and rapid response. The use of these technologies for broader health needs will also generate additional evidence that the platform may be able to leverage for future rapid product approvals.

III. Advance regulatory policies that enable accelerated vaccine development and authorisation. Clear regulatory frameworks are essential to enable National Regulatory Authorities to leverage prior knowledge from platform technologies when reviewing subsequent vaccines. CEPI will work with technical, normative and policy partners **with the aim of co-creating an aligned set of regulatory policies for the use of vaccine platforms in emergency contexts**, which can support rapid regulatory review and authorisation of future vaccines, and that are endorsed and incorporated into WLA (WHO-listed authority) guidelines. CEPI's Regulatory Advisory Group, established during the COVID-19 pandemic, played a critical role in aligning regulatory approaches and this group remains active today, supporting outbreak response and the continued implementation of regulatory innovations.

IV. Grow a knowledge base to inform platform and adjuvant selection. CEPI will reduce risk in vaccine development by strengthening the evidence base used to select platforms and adjuvants for specific indications and use cases. Through advancing vaccines within both our viral-family and platforms portfolios, we will generate data that improve understanding of which technologies are most effective across different viral families. We will also leverage CEPI's Adjuvant Library, which enables preclinical screening of adjuvants, to identify optimal pairings for rapid outbreak response in support of the 100 Days Mission. Together, data will feed into CEPI's knowledge base and AI-enabled Pandemic Preparedness Engine for Disease X (PPX), accelerating decision-making and acting as a "co-scientist" across the vaccine value chain. *(Pandemic Preparedness Engine is described further below.)*

How CEPI will integrate Equitable Access in this priority area

For a platform to be ready-to-use, it must first be available when needed. The best way to ensure this is for that platform to be used in non-outbreak periods as well as outbreaks. To be used and therefore sustainable, it needs applications beyond outbreak vaccines or otherwise be kept warm – ready for a public health emergency. The best way to ensure platform manufacturing availability is for a commercial product to be associated with the platform and plan in flexibility of that capacity. These aspects help sustain partners and their capabilities to develop products and manufacture them on the platform. A holistic approach using targets for which there are anticipated public procurement plans will bring the best of both worlds.

CEPI's investment approach will include access terms intended to enable the fast development of the right product in response to an agreed emergency trigger, and for that product to be available at the right time and the right price. There is inherently a trade-off between the degree of CEPI funding and the equitable access conditions able to be secured. Stronger terms can often be negotiated for platforms that CEPI funds from early stages of development, and/or with significant CEPI co-funding of later stages.

CEPI's desired impact – to save lives, reduce risk, minimise disruption and ensure equitable access to vaccines – depends on our ability to translate scientific progress into real-world outcomes at speed.

Priority Area 3: Enable ready-to-activate networks and capabilities

We need to ensure that the vaccines, platforms and knowledge generated through our first two priorities can be rapidly and reliably translated into action during a real-world response. This means building and proving the **operational backbone** – the tools, infrastructure, integration and ways of working required to turn scientific advances into timely, real-world impact. CEPI has already invested in several complementary networks that together form an apparatus for vaccine R&D, manufacturing and outbreak response. CEPI's integrated network model, bringing multiple network types under a single strategic umbrella, is distinctive. Under CEPI 3.0, the emphasis shifts from building networks to **testing, connecting and operationalising them** so they can be activated quickly and deliver equitable impact.

These interventions are not made in isolation. CEPI will work with countries, regions and global partners to strengthen, integrate and align with existing capabilities and networks – including through alignment with existing and evolving norms and standards. Our goal is to catalyse and connect efforts across geographies, supporting scalable, interoperable systems that reflect local, regional and global needs. In this way, we can support capabilities (including networks) that become part of regional/local infrastructure, sustained through use both in and beyond outbreaks. Ultimately, this priority is about translating scientific progress into **speed, scale and equity**, and measuring our ability to repeat and improve on 100DM proof points already generated to date.

CEPI's Networks

Each of CEPI's networks plays a specific role in the outbreak response value chain:

- **Centralised Laboratory Network** – a globally coordinated system of laboratories (N= 20 as of 2025) that produce standardised tools for immunological testing (e.g. assays) for accelerated evaluation of vaccine candidates.
- **Clinical Research Preparedness Network** – a multi-regional hub & spoke clinical trial network working on strengthening clinical trial readiness across 38 countries (as of 2025) to enable rapid, high-quality evidence generation during outbreaks.
- **Global South Leaders in Epidemic Analytics and Response Network (GS LEARN)** – a collaborative of consortia strengthening modelling, analytics and preparedness in the Global South to enable rapid, locally-led and evidence-based outbreak response. Partner review currently underway; launch with up to 20 partner institutions expected in 2026.
- **Preclinical Model Network** – a globally coordinated consortium (N=19 as of 2025) that provides standardised, high-quality preclinical/animal models to accelerate vaccine development.
- **Regulatory Network** – a collaborative of regulatory authorities around the world (N=40+ as of 2025) that work to streamline regulatory processes and foster alignment to accelerate vaccine development and enable rapid outbreak response.
- **Vaccine Manufacturing Facility Network** – a globally distributed alliance of manufacturing facilities (N=5 as of 2025) that enhance rapid, equitable vaccine supply by strengthening regional manufacturing capabilities.

CEPI also works closely with independent initiatives, such as the Regionalised Vaccine Manufacturing Collaborative (RVMC) and the WHO mRNA vaccine technology transfer programme.

By the end of 2031, we will:

I. Test and accelerate readiness using exercises and real-world responses.

II. Enhance and pre-position CEPI's networks for rapid activation

III. Create and align on practical tools and resources for response

I. Test and accelerate readiness using exercises and real-world responses. CEPI will create a continuous learning loop that strengthens operational excellence and improves response speed by:

- **Testing CEPI-supported networks and internal operations** against pre-defined technical and operational best practices to validate readiness, identify gaps and embed learning across investments, in collaboration with partners such as WHO, Gavi, the World Bank, Africa CDC and PAHO.
- **Demonstrating national-level implementation of the 100DM**, building on pilots with Rwanda, South Korea and Indonesia. Participating countries (to be determined) will convene national public- and private-sector consortia under government leadership, supported by CEPI, to map 100DM capabilities, develop joint plans, test operations and identify evidence gaps through staged preparedness exercises.
- **Nurturing regional 100DM ecosystems** through a 100DM Learning "Collaboratory" that enables peer-to-peer learning, identifies regional champions and supports benchmarking and progress metrics.
- **Catalysing broader stress-testing** by publishing off-the-shelf exercise materials and best-practice guidance to enable external actors to assess 100DM readiness.

CEPI's exercise programme will involve 4–6 countries and 1–2 regions, primarily with LMIC partners, using a mix of tabletop exercises, functional exercises and live-fire drills to stress-test critical elements[8]. Exercises will be guided by partner needs and targeted to areas with the greatest knowledge gaps, complementing existing global, regional and national health-security efforts.

In addition, each outbreak response functions as an **unplanned live-fire drill**, testing geographically anchored capabilities while advancing research and integrating with national and regional public health responses. This requires strong pre-existing partnerships and jointly developed outbreak response plans, which is not new for CEPI. For example, in 2025 alone we monitored or responded to 15 outbreaks.

II. Enhance and pre-position CEPI's networks for rapid activation so they are ready to use. During the next strategic cycle, CEPI will:

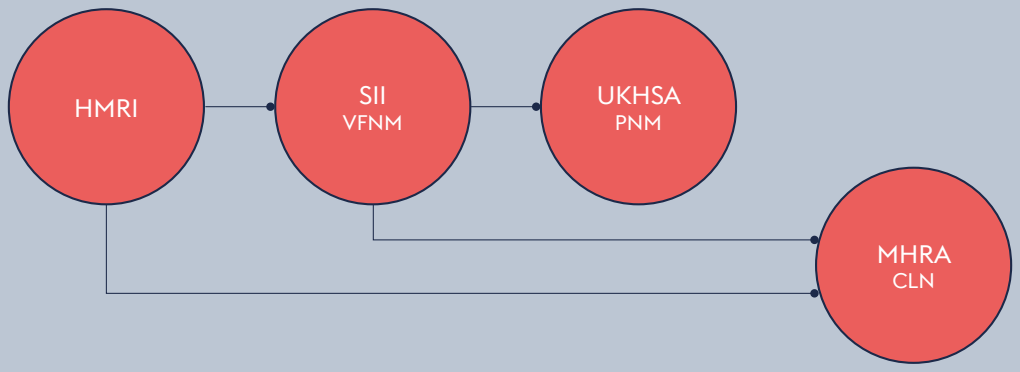
- **Strengthen core network capabilities** by improving operational readiness in outbreak settings, enhancing data and quality systems, improving data sharing, and delivering targeted training to support safe, reliable and rapid action.
- **Streamline coordination within, across and beyond CEPI's networks**, improving internal knowledge-sharing and standardising processes so partners can integrate seamlessly. CEPI will develop shared operating procedures, cross-network initiatives and aligned hand-offs, and will connect CEPI-supported networks with relevant global and regional initiatives, aligned with WHO norms and standards.
- **Support long-term sustainability of geo-diverse partners** by facilitating use of CEPI networks by both CEPI and non-CEPI developers across academia and industry, and through sustained country and regional engagement.

CEPI will prioritise strengthening capabilities among existing partners, while retaining flexibility to expand networks into additional regions as needs and resources allow. The focus is demonstrating how capabilities combine so the whole is greater than the sum of its parts.

[8] A tabletop exercise is discussion-based. A functional exercise is operations-based but the movement of resources remains simulated. A live-fire drill is an operations-based exercise (planned or unplanned) where the movement of resources is real.

Supercharging networks' potential: Cross-network support for vaccine development

CEPI is leveraging our live-fire drill response to H5N1 to test and demonstrate the interoperability of CEPI networks. We are working with network partners from the Vaccine Manufacturing Facility Network (VMFN), Centralised Laboratory Network (CLN) and Preclinical Model Network (PMN) to pressure-test outbreak supply response using wild-type and AI-designed H5 antigens, simulating a future pandemic threat. The learnings from this will allow us to better understand the gaps in handoffs between CEPI-supported partners.



- **Houston Methodist Research Institute (HMRI)**: design an AI-optimised, broad-spectrum H5 antigen
- **VMFN Network Partner, Serum Institute of India (SII)**: use validated baculovirus platform to produce wild-type and AI-designed H5 vaccines
- **PMN Network Partner, UK Health Security Agency (UKHSA):** perform immunogenicity and wild-type H5 challenge efficacy studies in ferrets
- **CLN Network Partner, Medicines and Healthcare Products Regulatory Agency (MHRA)**: confirm the vaccine in a validated potency release test.

To reach impact in an outbreak, CEPI will further need to optimise the handovers and transitions with partners beyond CEPI-supported networks – such as Gavi, WHO and regional partners.

III. Create and align on practical tools and resources for response that span the vaccine development value chain and enable consistent, high-quality execution by:

- **Co-developing 100DM "handbooks"** that define technical and operational requirements – including legal, financial and administrative elements – across the full response sequence. These will help clarify roles, decision points, protocols and handoffs; support testing and gap identification; and align with ecosystem partners, including WHO, Gavi, regional organisations (e.g. PAHO and Africa CDC) and development banks.
- **Developing, aligning or catalysing critical 100DM tools and frameworks**, such as immune-marker frameworks, adaptive trial designs, real-world evidence pipelines, alternative regulatory pathways, benefit-risk frameworks, early-warning triggers, pre-positioned target product profiles, and safe data- and sample-sharing mechanisms.

When networks and capabilities connect seamlessly, share data in real time, and operate under aligned standards, activation becomes faster and more predictable, bringing the 100 Days Mission within reach. Practical tools, clear operating procedures and regular testing ensure integration is not theoretical, but proven under pressure.

Cross-cutting themes that underpin all our priorities

As we implement programmes in these three Priority Areas, **CEPI will ensure that these programmes embed core organisational values reflected in a set of cross-cutting themes**. These themes articulate the values and characteristics that define CEPI's identity and shape both the objectives we set for CEPI 3.0 and how we deliver against them.

Cross-cutting themes:

Innovation & AI **Equitable Access** **Regional Partnerships** **Biosecurity**

Innovation & AI

CEPI plays a vital role as an innovation driver, accelerating the development and application of cutting-edge solutions. For CEPI, innovation means creating and applying new ideas, technologies and approaches that improve the speed, scale, safety, quality and equity of outbreak preparedness, readiness and response, while reducing the cost and complexity of vaccine development and manufacturing. Our innovation agenda focuses on proving and integrating next-generation technologies across R&D, manufacturing and delivery into outbreak-relevant vaccines. These innovations should be globally relevant, supporting sustainable manufacturing in more regions and lowering barriers to entry so that countries and regions can participate as co-creators of vaccines. The aim is to embed 100DM innovations in ways that support routine public health needs while strengthening emergency readiness.

Innovation will be embedded across all three priority areas. **In CEPI 3.0, we will:**

- Embed innovation within sustainable platforms, prioritising next-generation technologies that **improve LMIC utility, development speed and cost of goods**.
- Leverage AI across the R&D and manufacturing value chain through **targeted tools, agentic AI and a coherent AI platform** (described in the AI spotlight below).

Given the pace of technological change, innovation will remain a dynamic component of CEPI's portfolio. While milestones will be defined during implementation planning in 2026, we will continue horizon scanning and revisiting assumptions to ensure CEPI remains at the forefront of scientific and technological advances.

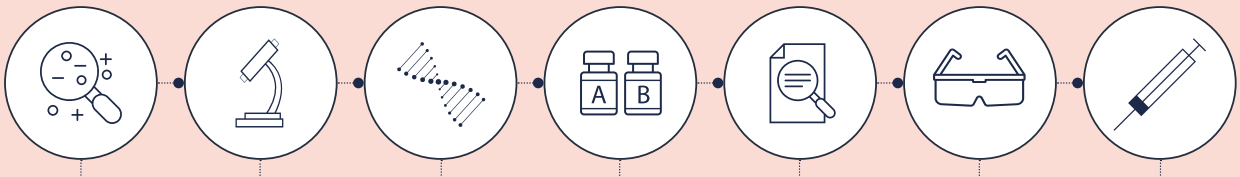
Spotlight on AI and Innovation

AI represents an avenue to drive huge advances in science, when used thoughtfully and safely. Our track record positions CEPI as a credible actor with a focus on bridging scientific innovations with equity and impact. We will work with partners to support both the application of AI and ensure that the resulting benefits are equitable and accessible. We will work with experts to address known challenges, including under-representations of populations and regions in data sets.

Building on the breakthroughs of CEPI 2.0, such as funding the first computationally designed medical product approved by a WHO-listed authority anywhere in the world, we will embed AI across our programming in CEPI 3.0. We will identify use cases for leveraging AI in service of the 100 Days Mission – to accelerate and de-risk vaccine development; these efforts will build on our growing portfolio of AI investments such as immunogen design and predictive modelling and will evolve as new tools and use cases emerge.

To connect all the tools, data and capabilities end-to-end, CEPI is developing the Pandemic Preparedness Engine for Disease X (PPX), an AI-powered platform that is integrated across the entire R&D continuum and is intended to serve as a global resource for partners. The PPX aims to connect aspects of pandemic preparedness from monitoring, through discovery, preclinical and clinical development and regulatory readiness with tangible improvements in threat identification, vaccine R&D&M (mutation prediction, antigen development, adjuvant selection, trial design etc), with emphasis on improving speed of analysis & decision-making.

The Engine will contribute to and enhance key stages of the vaccine development process



Monitor
Rank & list Disease X threats including their genetic sequence

Discover
Genetic mutations and predict evolutionary paths for potential viruses

Pre-clinical
Produce antigens designs that could elicit the desired immune responses

Clinical
Suggest optimal clinical trial designs to assess vaccine candidates

Regulatory
Rapidly curate preclinical and clinical data into regulatory filings

Safety
Predict and suggest mitigation strategies for adverse events

Manufacturing
Recommend optimal immune boosting adjuvants to pair with vaccine candidates

Equitable Access

CEPI will continue to champion an end-to-end approach to equitable access – **ensuring that the right products are developed for the contexts they are meant to serve, at the right time and price, and through partners capable of delivering real-world impact**. In May 2025, the World Health Assembly endorsed the Pandemic Agreement, reflecting global recognition that preparedness and response must be rapid and equitable. Countries and regions have increased their commitment to strengthen MCM R&D and manufacturing capacity. Across all levels – national, regional and global – rapid and equitable response is a shared objective.

Achieving this requires balancing **accessibility** and **sustainability**, even in a constrained fiscal environment. Accessibility depends on deep collaboration, co-creating solutions, aligning efforts and building trusted partnerships. Sustainability requires clarity on the cadence and reliability of financing and, for some pathogens, collective innovation across economic, technical and business models. Timing also matters: in some cases, a deliberate and cost-effective approach is appropriate; in others, rapid action can seize political or systemic opportunities for change.

CEPI cannot achieve equitable access alone. Delivering impact requires more than a product; it requires system-level coordination across public & private actors, clear roles, and hand-offs across the value chain. CEPI has developed frameworks to support collective, prudent decision-making, foster connectedness and navigate uncertainty strategically. In CEPI 3.0, we will:

- **Co-create end-to-end access roadmaps** with countries, developers, and global and regional health organisations. CEPI has already developed such tools for Lassa and mpox and will expand this approach to additional pathogens.
- **Use these roadmaps to convene early access discussions**, build consensus, mobilise shared action, and clarify roles, responsibilities and transition points among partners.
- **Redesign equitable access for cross-cutting innovations** (e.g. vaccine-making platforms, technologies, innovations that address LMIC suitability) that are needed for a resilient Disease X response; long-term equitable access requires a holistic approach that both maximises the use of such innovations to increase scientific success and confidence, and incorporates equitable access commitments – for the innovation itself and for the outputs they generate.

We will focus resources where they can deliver the greatest value.

As part of CEPI's approach to equitable access, we will continue to expand and apply a range of approaches for equitable access, starting with ensuring that safe and effective first-generation products reach the majority populations. We will speed up development of products through data sharing, and use global capacity to strengthen resilience, while working collaboratively with countries and partners for inclusive governance – this allows us to ensure that products for new variants continue to be equitable and accessible. As part of our approach, we will continue to pay close attention to safety, including by assessing vaccine suitability for vulnerable groups such as pregnant women and the immunocompromised. If first-generation products are unsuitable, CEPI will seek alternatives to ensure comprehensive protection and leave no population behind. Ultimately, resilience requires long-term sustainability, and we will advance second-generation vaccines for long-term sustainability where needed.

CEPI values inclusivity in decision-making, ensuring diverse voices from all backgrounds are heard, and can contribute to stronger, more innovative solutions. Global collaboration brings unique insights that enhance resilience and drive equity, sustainability and responsiveness to community needs.

Regional Partnerships

Ultimately, the 100DM capabilities are held by partners. Creating a resilient and equitable system includes supporting the regional diversification and ownership of 100DM capabilities over time whilst ensuring rapid response at any time. Regional partnerships are essential to developing vaccines and capabilities that reflect local priorities and can be effectively deployed in context. Different regions start from different baselines; regional engagement helps define shared objectives, empowers countries to make informed decisions, strengthens policy alignment, and builds trust and ownership. Such partnerships ensure vaccines are not only licensed, but accepted, delivered and used effectively in the communities that need them most. Importantly, the capabilities built through these partnerships are fungible – supporting both outbreak response and routine immunisation.

In CEPI 3.0, we will:

- **Strengthen strategic investments in country capabilities** for clinical trials, testing and manufacturing to reduce reliance on external resources and enable faster, more equitable responses.
- **Facilitate knowledge-sharing, co-creation and technical support** to help regions sustainably produce and deliver vaccines.
- **Align with regional priorities**: Guided by the Lusaka Agenda[9] and Accra Reset[10], strengthening existing systems and building on successful models such as the Lassa Fever Coalition.

Ultimately, regional engagement transforms vaccine development from a top-down process into a collaborative, locally anchored effort – strengthening resilience and delivering impact where it matters most.

Biosecurity

As CEPI works to accelerate safe and effective delivery of the 100DM, we are translating cutting-edge R&D and manufacturing into durable global health security capabilities, contributing to a world that is not only healthier, but safer and more secure.

High-impact innovations, including AI-enabled immunogen design, are essential to achieving the 100DM. However, the broad scope of AI tools also potentially introduces significant risks if these tools are misapplied. Our ambition demands that we move fast and do so safely.

Recognising this, CEPI published its first Biosecurity Strategy in September 2024, positioning the organisation as a thought leader in de-risking the 100DM and reducing global biosecurity and biosafety vulnerabilities beyond CEPI-funded research.

In CEPI 3.0, we will build on these observations and:

- **Embed biosecurity and biosafety principles** across the R&D and manufacturing value chain, ensuring that speed does not come at the expense of safety or security.
- Work with partners to **strengthen the capabilities of frontline research institutions**, many of which lack resources to implement complex biosecurity systems, by championing consistent global standards, norms and practices.
- Ensure CEPI networks **reinforce secure operations, trust and shared norms** – creating integrated, ready-to-activate and secure 100DM capabilities.
- **Strengthen engagement with the defence and security sectors**: Exploring carefully governed collaboration to increase the reciprocal benefits of the 100DM capabilities – for rapid vaccine response and increased population resilience.

[9] Future of Global Health Initiatives. Lusaka Agenda overview [Internet]. Available from: https://futureofghis.org/follow_ups/lusaka-agenda-overview/

[10] Africa.com. The Accra Reset: Reimagining Global Governance for Health and Development [Internet]. 2025 [cited 2025 Dec 18]. Available from: https://online.africa.com/accra-reset

CEPI 3.0 priorities are interconnected and reinforcing

Work across all priority areas will be tightly integrated to drive progress on multiple CEPI 3.0 objectives in parallel, towards CEPI's long-term outcomes. Integrated viral- family approaches ensure preparedness across diverse threats; platform readiness provides the backbone for rapid adaptation; and R&D and manufacturing networks convert these assets into operational capability through a globally distributed infrastructure that can be rapidly activated during outbreaks. Regular testing through real-world responses, simulations and stress tests ensures these systems work in practice – building accountability, learning and confidence in the 100DM.

Where feasible, investments will be multi-purpose. Viral-family exemplars will advance on CEPI-supported rapid-response platforms, strengthening both platform readiness and viral-family knowledge. Enabling sciences will leverage CEPI-supported labs and trial networks, advancing vaccine development while keeping networks tested and outbreak-ready.

Success will also depend on effective ecosystem collaboration. CEPI will focus on its catalytic role, supporting rapid research initiation alongside country-led detection, partnering with regulators to strengthen readiness, and enabling others to scale supply so that collective efforts translate into impact.

Epidemic and pandemic preparedness are mutually reinforcing. Developing vaccines for known threats on relevant rapid-response platforms simultaneously strengthens readiness for unknown "Disease X" threats.

Anticipating CEPI's Impact

CEPI's desired impact – to save lives, reduce risk, minimise disruption and ensure equitable access to vaccines – depends on our ability to translate scientific progress into real-world outcomes at speed.

CEPI 3.0 is designed to do exactly that: converting upstream investment in vaccines, platforms and capabilities into measurable health, economic and security benefits. Prior modelling conducted by CEPI indicates that the 3.0 strategy has strong potential to translate investment into substantial health and economic impact. These illustrative analyses highlight the benefits that could be achieved through timely, equitable vaccine development and deployment, while recognising that realised impact will depend on how the strategy is implemented and scaled.

For example, for **sarbecoviruses**, including potential future threats such as SARS-X, modelling suggests that broadly protective vaccines for high-risk populations could reduce mortality by up to 53% before strain-specific vaccines become available. Retrospective analyses indicate that, had such vaccines existed and been available during COVID-19, 40–65% of deaths among older adults could have been prevented in the first year alone. Separately, analysis of the 100 Days Mission suggests that delivering effective **COVID-19 vaccines within 100 days could have saved approximately 8 million lives globally** – underscoring the transformative value of speed.

Increased investments at global, national, regional levels are needed in order to realize the 100DM. For example, the High-Level Independent Panel's Closing the Deal report (2025) highlights that health shocks such as epidemics and pandemics carry severe economic consequences (e.g. COVID-19-related output losses are estimated at nearly US$ 14 trillion through 2024, and experts conservatively project future pandemics could impose global economic losses averaging more than US$ 700 billion annually if left unchecked).

Taken together, these analyses demonstrate the potential of CEPI 3.0 to deliver outsized impact and highlight what is at stake if action isn't taken.

[11] National Academy of Medicine. Closing the Deal: Financing Our Security Against Pandemic Threats. Report of the G20 High-Level Independent Panel on Financing the Global Commons for Pandemic Preparedness and Response. Washington (DC): National Academy of Medicine; November 2025. Available from: https://nam.edu/wp-content/uploads/2025/12/Closing-the-Deal_final_compressed_final.pdf

Preparing for 2027

This strategy has been shaped through extensive consultation with countries, regional and global health institutions, awardees, investors and civil society. In 2026, CEPI will undertake comprehensive implementation planning with partners, detailing activities and milestones for 2027–2031.

We will drive execution through detailed implementation planning that aims to make our activities across the 3 priority areas coherent and progress multiple goals in parallel. We will leverage the Scientific Advisory Committee (SAC) to ensure robust technical delivery, co-develop regionally relevant offerings with partners, and define metrics and KPIs aligned to 2031 outcomes. **Progress will be reviewed through the Annual Portfolio Review, and strategic objectives and cross-cutting themes will be embedded into governance and decision-making processes**, including through the Joint Coordination Group (JCG) and SAC.

To ensure continued relevance and effectiveness, CEPI will systematically anticipate and monitor risks that could materially affect the feasibility, prioritisation or impact of CEPI 3.0. This will include structured horizon scanning across geopolitical, economic, scientific, technological, environmental and societal domains, drawing on internal analysis, partner intelligence and external expert inputs. Particular attention will be paid to developments that could alter the threat landscape, constrain or enable financing, reshape regulatory or policy environments, or accelerate technological change – including advances in artificial intelligence and biotechnology. **This forward-looking approach will allow CEPI to identify emerging opportunities and risks early, rather than reacting once they have already begun to affect delivery.**

CEPI will define and track a set of strategic "triggers" that signal when assumptions underpinning the strategy may no longer hold, or when the balance of risks and opportunities has shifted. **These triggers may include major outbreaks or near-miss events, significant changes in geopolitical or funding conditions, breakthroughs or setbacks in key technologies, regulatory or normative shifts, or material changes in partner capacity or behaviour**. Where such triggers arise and are assessed to affect CEPI's ability to deliver its intended impact, CEPI will undertake off-cycle strategic reassessments. These reassessments will be proportionate and targeted – focused on adjusting priorities, sequencing, delivery approaches or partnerships, rather than reopening the strategy wholesale – ensuring agility without undermining strategic coherence.

Finally, risk management will be embedded throughout implementation planning and annual operational cycles. This will include systematic identification and mitigation of operational, financial, partnership and external risks, with clear ownership and escalation pathways. Risk assessments will inform annual planning, portfolio reviews and investment decisions, enabling CEPI to recalibrate activities as needed while maintaining alignment with long-term objectives. Even as we embed flexibility and risk responsiveness, we will ensure high value for money as a consistent throughline of our approach, with investments that are consistent with industry standards. Through this integrated approach, CEPI will ensure that CEPI 3.0 remains resilient, adaptive, and positioned to deliver impact in an increasingly uncertain and fast-evolving global environment.

CEPI