Innovation with impact

HInM Strategy – 2024 to 2027

> "Health Innovation Manchester's vision is to be world leading in improving the lives of local people, transforming care and boosting the economy through innovation."

Health
Innovation
Manchester

Innovation with impact: strategy introduction

This Health Innovation Manchester (HInM) strategy sets out our plans for how we will continue to accelerate our impact from innovation over the next three years.

Greater Manchester (GM) is regarded as an active, diverse and ambitious health innovation ecosystem with a concentration of health and care, academic, life sciences and digital sectors. It is driven by Health Innovation Manchester and partners, working together to deliver better outcomes and impact for the people of Greater Manchester.

The GM health and care system is facing considerable financial, operational and clinical pressures, and there is a real danger that inequalities will deepen in some of our most underserved communities. This is a problem in GM and we know that similar challenges exist globally, irrespective of the underlying health and care funding and delivery model. Contributing factors are the scale of poverty, ageing populations, increasing prevalence of diseases caused by lifestyle factors and escalating costs of healthcare provision.

The need to innovate has never been more pressing to address these issues, and we must ensure that groundbreaking research from both the academic and industry sectors plays through to deliver better outcomes at scale.

This needs to be underpinned by effective prioritisation to address the most important issues first, harnessing opportunities through digital transformation and addressing the needs of local communities, particularly those who do not currently access good healthcare services.

As well as improving health outcomes, harnessing innovation is a major driver of economic growth and development, both through improving individual citizens' productivity through better health, and by forming partnerships with industry driving inward investment and developing thriving local businesses.

GM, through increased collaboration with HInM, has made steady advances in the health innovation sector over the last few years by forming strategic partnerships across the city region delivering demonstrable benefits to local services, people and the communities in which they live.

The strategy outlines:
- the trends, challenges and opportunities influencing our approach
- Our updated vision, offer and strategic objectives, backed by key results (OKRs)
- Our plans for taking our mission forward
- Measuring impact from innovation

In developing this strategy, we have worked in close consultation with key representatives from across the GM system in health, care, economic development and academia, coupled with input directly from industry. The process is summarised in appendix 1. This has enabled us to work towards more closely aligning our innovation activities to addressing the city-region's biggest population health drivers, and the areas with the most compelling evidence for impact over the next three years.

Through this strategy we will optimise our return on investment for our partners, support system sustainability and economic growth, and importantly deliver better outcomes and experiences for the 2.8m people of Greater Manchester.

Defining innovation

Reliable delivery of innovation at pace and scale remains a challenge globally, and we have come to believe that one of the key factors supporting success is robust method. As such, we differentiate between the practices of improvement, innovation and transformation in the following ways:

Improvement

Activities to promote iterative and incremental increases in performance, working within cultures of continuous learning, and typically working across boundaries to calibrate changes to interdependent components.
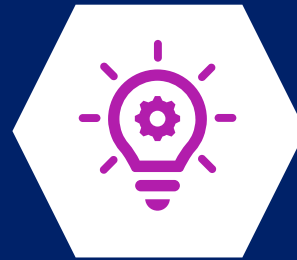
Innovation

The application of an idea, technology or object that is new to accepted standards of care and has potential to offer substantial positive impact on health-related outcomes with disruption to current service delivery models.

Transformation

The emergence of an entirely new state prompted by a shift in what is considered possible or necessary, which results in a profoundly different structure, culture or level of performance.

While HInM has developed capabilities across this spectrum, and we accept the limitations of this model, our primary focus is on discovering, developing and deploying innovative solutions that will have impact. We recognise fully that, to benefit fully from the potential of new technologies and innovations, the current state of the health and care system needs to change to be better at adopting and scaling prioritised innovation.

We are Health Innovation Manchester.

Health Innovation Manchester is a different type of place-based innovation organisation.

Since formation in 2017, we have evolved our operating model and method for how we deploy innovation to deliver demonstrable impact and benefits to local people, system partners and industry.

The four key elements to success include our approach to integrated governance, blending capabilities, industry partnerships and an unrelenting focus on method.

Integrated governance

Whilst we are an NHS hosted organisation, we report to an independent Board comprising the highest-level city region leadership from the NHS, GM universities, the GM Combined Authority, local authorities and influential non-executive directors from global life sciences and medtech industries.

Integrated capabilities

HInM comprises the GM Health Innovation Network (formally AHSN), the Manchester Academic Health Science Centre, the NIHR Applied Research Collaborative and the GM NHS city region digital transformation office.

Whilst recognising their distinct accountabilities, we integrate the components to deliver our mission through blended innovation activities and driving collaboration across GM partners.

Industry partnerships

Greater Manchester's past, present and future is based on compelling partnerships with industry.

We recognise that major innovation supply chain opportunities for health and life sciences are coming from the pharma, biotech and digital industries.

We focus on partnership with industry to accelerate their product lifecycle management process and thereby deliver benefit to industry, as well as accelerated benefits to local people and the health economy.

Unrelenting focus on method

We recognise that reliable delivery of innovation at pace and scale has been a challenge for healthcare systems across the world.

To drive forward our approach in Greater Manchester, we have ensured that we place data and digital approaches at the heart of everything we do, and developed an enhanced innovation method overseen by robust assurance and measurement of impact at the centre of our operating model.

Innovation impact case studies

Working with GM partners we deliver a range of innovation activities, from basic science through to clinical trials, real world implementation, developing and deploying digital products, developing new models of care, and the adoption and the spread of new products and services.

Overseen by a senior Board of system leaders and global industry non-executives, HInM is a key part of the GM health and care system, as well as a leader in driving economic growth in the GM city region for health innovation and life sciences. HInM also works in partnership with GM universities and NIHR research bodies to align research to priority areas and deploying proven solutions across the system.

We have demonstrated the benefits and impact of accelerated innovation through a number of priority programmes and our published annual impact report.

Some key highlights are referenced to the right – click on the links provided.

1 Improving outcomes for people by optimising medication to treat high cholesterol and reduce cardiovascular events
click to view

2 Designing and developing a new model of care to deliver 1000 virtual ward beds across GM
click to view.

3 Accelerating the deployment of the GM Care Record for 2.8m people to enable data sharing for direct care, secondary uses and research
click to view.

4 Developing a new tech enabled model of care to deliver physical health checks for people with severe mental illness
click to view

5 Advancing novel diagnostics across priority disease areas to provide at risk communities with faster access to effective treatment
click to view.

Contextual analysis

Context: Global health and care trends

The COVID-19 pandemic permanently changed global health care - from accelerating the adoption of new technology and care delivery models to increasing the focus on sustainability and resiliency. Together these dynamics are challenging for industry, patients and health care alike.

- **Health inequity** – rising health inequity in underserved and disadvantaged communities is impacting quality of life and life expectancy, deepening inequalities
- **Health complexity** – the global population is ageing, more people are living with comorbidities, leading to additional complexity and reliance on health services
- **Rising burden of mental health** - By 2030, mental illness costs are expected to reach more than $6 trillion annually
- **Net Zero** – climate change is now recognised as a universal risk to human health and wellbeing, and healthcare providers need to adapt operating models

- **Infrastructure** – shift to cloud-based technologies, investment in electronic patient records, future potential to merge with CRM systems

- **Digital health** - technologies such as generative AI, telehealth, and monitoring devices, are providing real-time and continuous data about our health and our environment.

- **Precision medicine** – building on greater scientific discoveries, transformed clinical trial structures, digital medicines and other innovations are dramatically advancing the way we diagnose and treat different diseases.

- **Data security and privacy** - the increasing use of electronic health records and digital health platforms, protecting patient data and ensuring privacy is a growing concern. Cybersecurity threats to healthcare systems have become more sophisticated.

Population health

Innovation

Health care provision
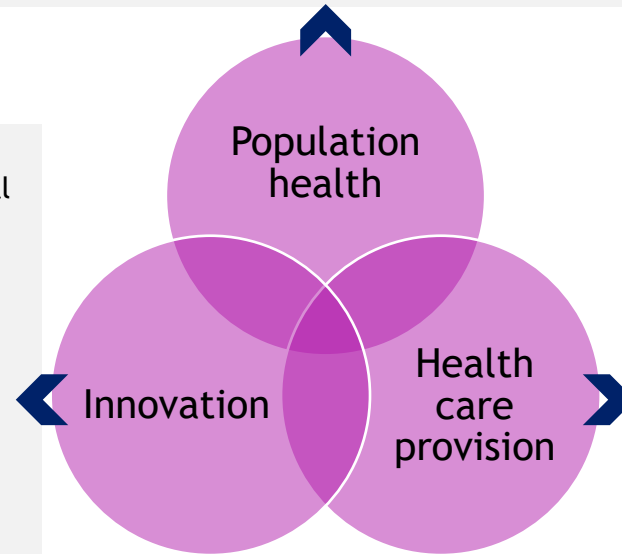
As part of the contextual analysis, we have further considered global industry, national healthcare and GM system trends.

- **Rising costs** – Health and social care costs continue to rise, putting financial strain on individuals, families, governments and providers.
- **Virtual care** – The rapid acceleration of remote monitoring and telehealth products is disrupting traditional healthcare models, improving patient experience and outcomes, and reducing costs.
- **Workforce pressures** - By 2030, the global health care sector will need an estimated 80 million more workers to meet demand, skills shortage and ageing workforce leads to new operating models.
- **Prevention and secondary prevention** - Health care systems will require to source investments and promote shared aims of prevention and wellness for communities - a paradigm shift from the traditional emphasis on providing sick care for individuals.
- **Equity of access** - achieving universal health and social care coverage remains a challenge in many parts of the world, even in the UK where a postcode lottery remains and provision is significantly varied.
- **Regulatory challenges** - Healthcare regulations and policies are continually evolving, and navigating this complex landscape can be a challenge for healthcare organisations.

Context: The GM health and care system is facing a 'triple deficit' in population health, performance, and finance

GM has undertaken a review of population health segments to identify the areas of biggest need and drivers of increase demand and cost. This has involved in depth analysis of data and spend across the system – referred to as the 'Strategic Financial Framework'.

GM's financial deficit is estimated to reach £1.9bn by 27/28 if nothing changes – so the need to take action now is paramount.

The biggest opportunities for reform have been categorised as:
1) Addressing prevalence and growth of ill health
2) Optimise models of care and address variation
3) Improve care for the most disadvantaged

The health of the GM population is deteriorating:
- projected 10% reduction in the proportion of the population in good health
- A doubling of the population with multiple long-term conditions over the next 5 years
- Continued impact on health of poverty and cost of living crisis

Primary drivers:
Smoking, obesity, diet and exercise, alcohol dependency

Secondary drivers:
- Cardiovascular disease, diabetes, respiratory, frailty, mental illness, dementia

Social determinants:
Housing, food insecurity, transport, substance misuse

GM is also failing to meet its statutory performance targets across urgent and emergency care, elective, social care, mental health:

- 1.3m A&E attendances pa (increasing by 2.2% pa) with 320K emergency admissions pa
- 92% bed occupancy, vs optimal of 85%
- 57% of A&E attendances in 4 hrs (Type 1)
- 20% (550K) of GM citizens on elective waiting list, vs 13% national average
- 2% (53K) waiting for > 52 weeks

Key areas for potential avoided cost, biggest ROI and potential for innovation development and deployment identified as:

Adults and older people with multiple LTCs
- Cardiovascular
- Diabetes
- Obesity
- Respiratory

Mental health
- Children and young people
- Dementia
- Depression and anxiety
- Severe mental illness

Maintenance of adults in 'good health'
- Digital health
- Cohort finding
- Risk stratification
- Screening and diagnostics

Context: Digital is the general-purpose technology for the 21st century

Summary of digital and data assets for innovation in Greater Manchester

GM partners have spent the last eight years developing digital assets within the GM system, notably the GM Care Record, the Advanced Data Science Platform (ADSP), the GM Secure Data Environment (SDE) and Electronic Patient Records EPRs).

Together these enable us to go deeper and further towards our ambitions of developing and deploying proven innovation to local people and measuring benefits in real time.

The **GM Care Record** joins up data from across GM's health and care organisations and gives frontline staff access to vital patient information to enable more informed care for our citizens. The GMCR is now being accessed by over 19k frontline workers to support the care of over 190k patients each month.

Secure Data Environments (SDEs) are highly secure computing environments that provide access to health data to use in health and care research. Utilising primary care and secondary care data from the GM Care Record, linked with other key datasets, HInM is developing the GM SDE platform and infrastructure, which will also include attracting investment from life sciences and tech partners.

NHS provider organisations are also moving forward with enhancing the Electronic Patient Record (EPR) capability, notably including the deployment of EPIC across Manchester University NHS Foundation Trust as one of the largest deployments in the country. GM's SDE will provide the infrastructure and analytical tools for artificial intelligence (AI) development, clinical trials, real world studies, translational research, epidemiological studies and health systems research here in GM for the benefit of our population.

It is supported by significant information governance arrangements (with 500+ data controllers across the city region) and extensive citizen engagement with the public embedded in decision-making. GM, through the work undertaken by HInM, is the first ICS in England to gain national Confidentiality Advisory Group (CAG) approval for multiple uses of the data, putting GM in a potentially globally leading position.

There are vast opportunities to harness the capabilities of GM's globally leading digital tech sector, and our universities, notably the University of Manchester's Pankhurst Institute, to advance our application of internet of things technology, data sources and next generation computing and artificial intelligence in healthcare.

HInM acts as the front door for industry and academia to access these innovations, and is now working to develop a pipeline of academic research and commercial projects that will utilise this range of capabilities, and also offer a direct benefit to GM health and care partners, local people and academics.

HInM offer and strategic priorities

Health Innovation Manchester plan on a page

Our vision
Health Innovation Manchester's vision is to be world leading in improving the lives of local people, transforming care and boosting the economy through innovation.

Impact 1:
Improve lives and outcomes for GM people by addressing the priority drivers of population health.

Impact 2:
Support a safe and sustainable GM health and care system through deployment of innovation at scale.

Impact 3:
Boost jobs and economic growth for the GM city-region through industry collaboration and partnerships.

Objective 1:
Address high priority drivers of population health by deploying proven innovations at scale, with a major focus on primary and secondary prevention.

Objective 2:
Establish GM as a global learning market for accelerated access to novel innovations at scale

Objective 3:
Optimise digital and data products and services to understand the population, define their needs and develop new models and pathways.

Objective 4:
Work with partners to enhance the GM system's capacity and capability to deliver health innovation and demonstrate impact.

Key enablers: GM Care Record, Secure Data Environment, digital transformation, industry partnerships, academic partnerships, system engagement (with commissioners, providers, patients, carers, the voluntary sector and local places), user-led design.

Foundations: OKR framework, HInM people and OD plan, innovation pipeline, innovation culture, benefits measurement

"Ideas are easy. Execution is everything."

John Doerr

Deploying the framework of objectives and key results (OKRs) will be critical to achieving our ambitious plans.

To deliver the vision we need to accelerate activities across our internal business functions (digital, clinical, industry, academic, engagement, delivery) and create better connectivity and alignment. This will require more discipline, method, transparency and oversight to ensure focus, avoid duplication and maximise impact.

Objectives and key results (OKRs) is a validated framework for an ambitious and agile-approach to goal setting, used particularly in tech industries for aligning business activities to achieving the overall objective, optimising impact, growth and productivity. We will be setting a key result to deploy the OKR framework across the entire HInM organisation in 24/25.

The topline organisational objectives in the strategy will likely endure for the three-year period, but the underpinning objectives will be developed annually and key results will be iterated on a quarterly basis to ensure we remain agile, focused and on track to delivering our ambitions.

OKR draft example

Objective 1
Address high priority drivers of population health by deploying proven innovations at scale, with a major focus on primary and secondary prevention.
Key results:
KR1: Understand the size of the problem and opportunity, and prioritise innovation to deliver a measurable impact across cardio-renal-metabolic diseases and obesity
KR2: Reduce cardiovascular related events by 20% by deploying the three most promising innovative solutions at scale
KR3: Deliver a 5x increase in eligible patients to access novel therapies, with demonstrable improvements in outcomes and impact
KR4: Enable equitable and faster access to diagnostics using novel solutions, meeting the 6-week from referral target

Strategic objective 1
Address high priority drivers of population health by deploying proven innovations at scale, with a major focus on primary and secondary prevention.

We will balance our innovation portfolio across discover, develop and deploy – focusing on deploying proven solutions in areas with a good evidence base to deliver an impact within 3 years, and developing potential solutions where the evidence is less established.

Major mission - cardiovascular risk management
We will launch a major innovation-led mission to transform cardiovascular risk management over the next three years, setting ambitious targets for better and more equitable population health.

The mission will focus on preventing, diagnosing, monitoring and treating disease early by harnessing the transformative power of industry, digital and data.

This will include exploring opportunities for innovation across the broader cardio-renal-metabolic conditions such as chronic kidney disease and diabetes, as well as obesity.

Innovation programmes
We will plan to deliver further innovation initiatives in respiratory, with a particular focus on primary and secondary prevention of asthma and chronic obstructive pulmonary disease. We will build on the work we have already delivered in these areas, including primary care-led reviews and remote spirometry.

Mental health, including children and young people's, dementia, depression and anxiety, are also identified as areas of high demand, pressure and variation across the system. While the evidence base for intervention from an innovation perspective is less well understood, it provides and opportunity for GM's healthcare, academic and industry partners to come together to build an evidence base case for innovation and impact.

We will also fulfill the requirements of the national Health Innovation Network (HIN) commission, aligning delivery to our overall priority areas where possible.

Strategic objective 2
Establish GM as a global learning market for accelerated access to novel innovations at scale.

GM has the potential to improve its position as a globally-leading city-region for health innovation - using innovative clinical trials and real-world studies to develop breakthrough products and treatments, and accelerating the development and adoption of new medicines, diagnostics, med-tech and digital tools.

We will form a consortium of industry partners across life sciences, medtech, digital and creative industries – from SMEs to global players – with a shared ambition to transform health and care delivery and outcomes in our high priority areas, linked to objective 1.

Building on GM's strengths in life sciences, we will work with partners to increase economic growth in the sector by attracting inward investment, leveraging additional funding and fostering jobs creation.

Recognising the global trend and rising demand for digitally enhanced clinical trials and real-world early value assessment of new products and therapies, we will work with GM's raft of health, care and academic partners, including the established NIHR infrastructure, to augment capabilities in this area.

Strategic objective 3
Optimise digital and data products and services to understand the population, define their needs and develop new models and pathways.

Digital and data underpins all of our innovation activities. We will continue to build and enhance critical digital platforms and assets to support advancements in direct care provision, research and innovation.

Through the GM Care Record and Secure Data Environment, we can can quantify eligible patients through cohort finding and risk stratification across GM's 2.8m population, as well as produce near real-time generation of outputs, outcomes and impacts to demonstrate benefits.

We will work with industry to develop and deploy digital products and tools to support a shift towards prevention, secondary prevention and new efficient and effective models of care, such as through a more ambitious approach to delivering tech-enabled NHS at Home to support admission avoidance at scale.

We will forge close partnerships with the GM digital sector and academic institutes to explore the potential of internet of things technology, data sources and next generation computing and artificial intelligence.

Strategic objective 4
Work with partners to enhance the GM system's capacity and capability to deliver innovation and demonstrate impact.

Health and care systems need to harness the potential of innovation to address population health and care transformation challenges, by cultivating an innovation ecosystem ready to adopt and spread at pace and scale.

As such, HInM will work with GM partners to position innovation as a key priority, with the necessary people, process and cultural elements in place to enable innovation to flourish. This includes clarity on funding, prioritisation, decision making, governance and assurance, and the successful handover from innovation to a sustained 'business-as-usual' position.

As part of this, we will further improve our own capacity and capabilities to deliver innovation at scale and measure impact – further strengthening our operating model, innovation pipeline and delivery method.

We will adopt and deploy the objectives and key results (OKR) framework across all business functions for clearer more transparent goal setting, and greater alignment between functions.

HInM people plan - developing our innovation culture and capabilities

Our people plan was codesigned with staff, comprising five key pillars.

It is a reflection of the crucial role that people, process and culture play in achieving success.

As we endeavor to pioneer cutting-edge healthcare solutions and innovate the system in Greater Manchester, attracting talent, developing and empowering our staff is a top priority.

HInM ways of working

We work together from a shared understanding of our HInM philosophy; supporting and recognising growth and innovation, maximising the opportunity that hybrid and flexible working provide, operating with trust, autonomy and freedom to act.

Belonging

We are connected through our strong HInM brand, which demonstrates a diverse and inclusive culture, valuing and supporting our individual and team contributions, and we are actively engaged with the HInM strategy and ambition.

Inclusive leadership

Recognising the leadership capability of everyone, with a focus on shared decision making and having a compassionate approach to 'how' we lead at HInM, working with clarity of vision and purpose.

Healthy and sustainable

A connected organisation which is cohesive, has clarity of objectives & purpose, and creates an environment which is trusting, encourages accountability and enables innovation through healthy conflict and solution focused thinking.

Health Innovation Manchester
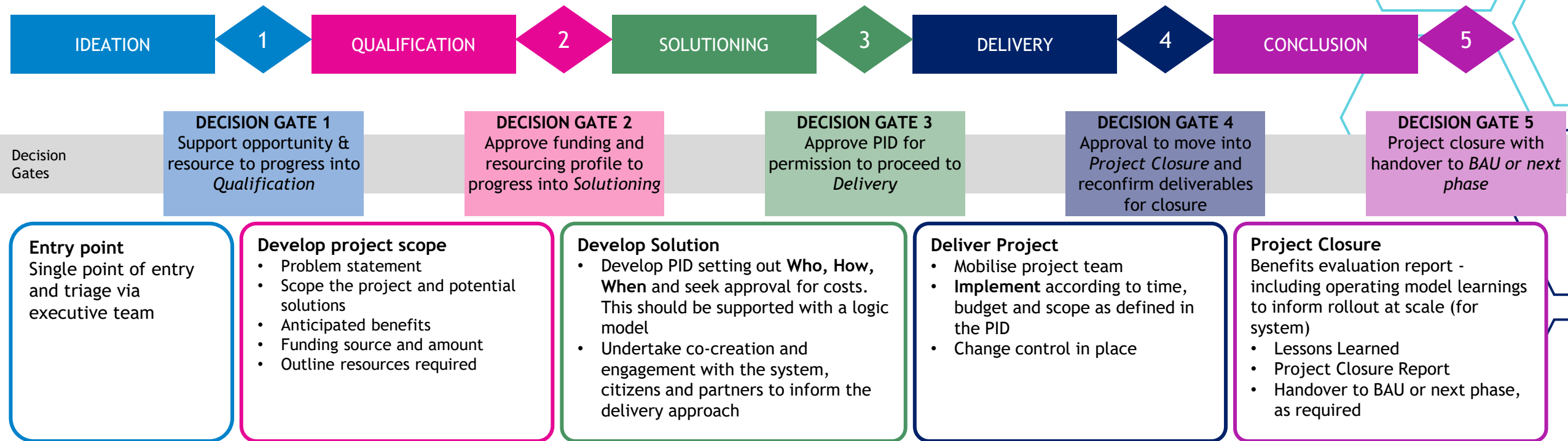
Delivering and measuring impact

Our delivery is underpinned by a rigorous method

Delivery of our innovation activities is underpinned by our robust innovation pipeline method and approach, taking best practice from the tech industry and applying that into practice. This ensures an appropriate level of accountability and decision making, robust governance and assurance, and drives up delivery standards and effectiveness, as well as builds in benefits realisation from the beginning.

We adapt our approach according to the problems we are solving and solutions we are deploying, and have developed a critical set of capabilities and assets that we utilise as part of our overall offer back to the health and care system, academia and industry. It is our blend of in-depth healthcare, industry, digital, academia and engagement expertise that adds value to our partners.

IDEATION	1	QUALIFICATION	2	SOLUTIONING	3	DELIVERY	4	CONCLUSION	5

Decision Gates

	DECISION GATE 1	DECISION GATE 2	DECISION GATE 3	DECISION GATE 4	DECISION GATE 5
	Support opportunity & resource to progress into *Qualification*	Approve funding and resourcing profile to progress into *Solutioning*	Approve PID for permission to proceed to *Delivery*	Approval to move into *Project Closure* and reconfirm deliverables for closure	Project closure with handover to *BAU or next phase*

Entry point
Single point of entry and triage via executive team

Develop project scope
- Problem statement
- Scope the project and potential solutions
- Anticipated benefits
- Funding source and amount
- Outline resources required

Develop Solution
- Develop PID setting out **Who, How, When** and seek approval for costs. This should be supported with a logic model
- Undertake co-creation and engagement with the system, citizens and partners to inform the delivery approach

Deliver Project
- Mobilise project team
- **Implement** according to time, budget and scope as defined in the PID
- Change control in place

Project Closure
Benefits evaluation report - including operating model learnings to inform rollout at scale (for system)
- Lessons Learned
- Project Closure Report
- Handover to BAU or next phase, as required

Benefits realisation and measuring impact

We will deliver a range of fiscal, economic and social benefits over the next three years to help address the 'triple deficit'.

At a business and team level, we will drive greater strategic focus, transparency and accountability using the OKR framework. At a project and programme level, we will continue to use the logic model framework to deliver and demonstrate tangible benefits over time.

Some of these activities will be owned and delivered by HInM, some will sit with other partners in academia, the ICB, primary care and the TPC. Therefore, we need to clarify the RACI matrix for each project from the outset, with clearly defined deliverables against each domain.

The full logic model template is in the appendix.

Example of benefits from innovation activities:

	Outputs (Year 1)	Outcomes (Years 2-3)	Impacts (Years 3+)
	Measurable/quantifiable results or deliverables from the intervention	*What the programme and initiative lead to Short/medium term consequences*	*Longer term changes in wider contextual factors/issues*
FISCAL	• Shared understanding of population health costs, service capacity and demand, and ROI from intervention • ADSP and SDE platforms fully operational, with a cost recovery model • Increased leveraged funding and resources from industry and Government agencies	• Increased clinical trials and real-world studies • Faster access to new products, diagnosis and treatment • Optimisation of new medicines and therapeutics • Increased efficiency and effectiveness of care models, pathways and services • Increased academic grants	• Health and care cost reduction • Admission avoidance • Reduced length of stay • Optimising clinical capacity for direct care • Reduction in demand for care
SOCIETAL	• Clear evidence base for intervention • Structured deployment method • Cohort finding and risk stratification • Blueprint care models and new clinical guidelines • Demonstrable relational improvements, system capacity and capability to deliver research and innovation	• Improved standard, reduced unwarranted variation • Targeted intervention and precision medicine • Deployment of proven innovation and technology at scale • Enhanced expertise in health economics, analytics, AI, predictive modelling • Increased clinical standards • Academic publications	• Improved health outcomes • Improved care and treatment • Improved patient outcomes and experience • Improved quality of care • Equity of access and care across the system • Better management of long-term conditions and disease progression, including self-management
ECONOMIC	• Deeper understanding of productivity loss against key drivers of population health	• Increased inward investment • Increased foreign direct investment • Increased productivity and employment • Jobs creation	• Economic growth • Growth in highly skilled jobs • Growth in GVA from health innovation • Accelerated market access for industry