

IHI Call Days | Call 9

Heart Networks

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IHI brokerage platform

- Proposal sharing tool: [Hart Networks](#)
- Participant profile: [Roche Diagnostics](#)

Challenges and objectives

Problem

Many of the current limitations in the care of cardiometabolic patients are the consequence of healthcare systems, designed to be extremely effective to address acute cardiac conditions but with **many care gaps and inefficiencies when addressing chronic diseases across the cardiometabolic continuum**

IHI objective (s)

Main IHI objective addressed with **Heart Networks**:

SO3: Demonstrate the feasibility of people-centred, integrated healthcare solutions

Secondary objectives addressed with **Heart Networks**:

SO4: exploit the full potential of digitalisation and data exchange in healthcare

SO5: enable the development of new and improved evaluation methodologies and models for a comprehensive assessment of the added value of innovative and integrated healthcare solutions

Unmet need

Public health has a **need to redesign the healthcare of chronic conditions related to cardiometabolic diseases** in order to improve clinical outcomes and increase the sustainability of our healthcare systems.

The **suboptimal care management of cardiometabolic patient** is responsible for many preventable acute interventions in hospital care, is accounting for a high number of visits in primary care and it is also the predominant cause of disability and premature death in the European region¹. Altogether, their related economic burden is **estimated at around 520 bn € in the EU² ...**

1. <https://www.who.int/europe/news/item/15-05-2024-cardiovascular-diseases-kill-10-000-people-in-the-who-european-region-every-day--with-men-dying-more-frequently-than-women>

2 [https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(24\)00194-9/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(24)00194-9/fulltext).

<https://academic.oup.com/eurheartj/article/44/45/4752/7251239?login=true>, <https://diabetologia-journal.org/2024/04/30/2024-the-year-to-take-european-action-on-diabetes-to-the-next-level/m>

Your approach to solve the problem



Heart Networks proposal's ultimate goal is to create and validate specific quality-of-care improvements across the patient's cardiometabolic care continuum. We aspire to generate scalable solutions that underpin sustainability (improve outcomes & reduce costs) of chronic care management for society.

Interventions will be designed to **provide early and equitable access to a high standard quality of care** and will require the assembly and/or development of specific solutions. These can include technological, digital, clinical workflow components and services.

- **To assemble integrated E2E solutions**, that will benefit healthcare systems and patients by improving critical aspects in the overall care pathway (home, primary, ambulatory and hospital care)
- **To optimise innovative technologies leading to personalised, patient-centric solutions** for the early detection, diagnosis, treatment and monitoring of heart disease that will translate into benefits to patients and to the healthcare systems.
- **AI based approaches to achieve intelligent use of data** for monitoring quality of care, provide individual personalised risk stratification, enable better medical decisions and promote an evidence based learning healthcare system
- **To propose and test strategies tailored to the needs of patients**, promoting personalised approaches to patient engagement and interventions.

Is your project suitable for IHI?



Heart Networks. Public and private partnership is essential to achieve the goals

To benefit healthcare systems and patients by improving critical aspects in the overall care pathway:

- We need **public partners** along the patient journey/care continuum to develop care networks (home, primary, ambulatory and hospital care) and to test and validate intervention proposals.
- We need **private partners** with a variety of competencies in order to develop scalable state of the art disease management solutions that will seamlessly connect patients across different care levels.



Heart Networks. Needed contributions from industry

We need contribution to develop and assemble integrated and **patient-centric E2E solutions** that connect the overall care pathway across early detection, diagnosis, treatment and monitoring of cardiometabolic diseases.

We will require different health industry sectors to cover all key steps of the care continuum:

Interoperability and data availability at all care levels

Hospital and remote patient monitoring of vital signs and activity (including in vitro and in vivo diagnostics),

Patient engagement and education

Clinical decision support tools and application development to optimise therapy and care decisions.

Novel IVD biomarkers in research (trl 5 on) and digital biomarkers that can cover unmet diagnostic medical needs

Outcomes and Impact



- **Patients** will benefit from a personalised care and a reduction of care inequities through the redesign of seamless care pathways for chronic cardiometabolic conditions across the cardiometabolic continuum.
- **Healthcare systems will benefit from a new paradigm of e-health supported disease management** that will be generated through the deployment of transitional care models. The effect will be a reduction of the economic burden, contributing to the sustainability of healthcare systems.
- **Companies will benefit from a cross-sectorial public/private consortium** that will allow to innovate in a truly integrated care environment including all key stakeholder along the economic value chain of a healthcare system (including payers and policy makers).
- **Policy makers and payers will benefit from the real world evidence that will be generated** through the networks, facilitating the definition and adoption of optimized care guidelines.
- **Healthcare professionals** will benefit from integrated and seamless care pathways that will maximise the availability of data across the patient's healthcare continuum and will enable more accurate decision for therapeutic strategies.

Expertise and resources

Available expertise and resources:

- Patient and disease management, Biomarkers for diagnostic and monitoring of patients, IVD technology, Healthcare Consulting, Digital Infrastructure, Diagnostic Insights tools

We are looking for:

- Public health networks that can cover all care levels
- Monitoring of patient's vital signs and activity (in vitro and in vivo)
- Novel biomarkers in research (trl 5 on), new in vivo solutions and digital biomarkers
- Interoperability services and digital infrastructure to build integrated data flows across care settings
- AI for natural language processing, data analytics
- Clinical algorithm development
- Patient Engagement solutions supporting adherence to personalized care strategy
- Remote patient monitoring solutions
- PROM and PREM, analysis and interpretation. Patient experience (ie. Athenea)

Private members of the consortium will bring the in-kind contributions (IKOP* and IKAA) to meet budget specifications of IHI JU. Initial total budget estimations: 30 million €**

* IKOP - in-kind contributions to operational activities

** IKAA - in-kind contribution to additional activities