InnoMatch

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InnoMatch – Medtronic Challenge Definition

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1 Challenge Description

1.1 Name

PrediHeart - *Unlocking the power of data for proactive heart health*

1.2 Pitch

Turning continuous patient data into meaningful, predictive insights remains a major challenge in digital health. By integrating interoperable biomarkers—captured through IoT devices, AI-driven ECG analysis, and agentic or conversational AI—into Medtronic's remote monitoring platform, collaborative R&D can advance precision health in cardiovascular care, transforming raw data into actionable insights for earlier, personalised interventions.

1.3 Organisation Description

Medtronic, the world's largest medical technology company, operates across 20 specialised units and has over 90,000 employees in more than 50 countries. In fiscal year 2024, Medtronic spent $2.8B in R&D activities. In 2012, it created the Integrated Health Solutions (IHS) division to help hospitals address today's healthcare challenges by improving operational efficiency and patient outcomes. Today, IHS works with over 250 strategic accounts in Europe, including leading university hospitals and private hospital chains, providing a combination of infrastructure, supply chain services, care pathway optimisation, and digitisation solutions, leveraging best practices from Medtronic's global network. Its digital strategy focuses on flexible, scalable solutions across multiple therapeutic areas through an integrated and open ecosystem, powered by a common data platform, Medtronic Cortex. Our Remote Patient Monitoring (RPM) solution, built on Cortex and named GetReady, integrates seamlessly with hospital EMRs and patient portals, supporting diverse disease states, care plans, and protocols while reducing integration efforts and enabling rapid implementation. IHS services are essential to ensure adoption, maximis e value, and support hospital transformation.

1.4 Challenge Description

Remote patient monitoring (RPM) is rapidly transforming healthcare by enabling continuous, real-time tracking of patients outside traditional hospital settings. Medtronic's Integrated Health Solutions (IHS) division has been developing its RPM platform, GetReady, already been deployed to monitor patients across multiple therapeutic areas, including cardiovascular care. By collecting continuous vital signs, PROMs and PREMs data, GetReady helps clinicians monitor patient status, detect early signs of deterioration, and intervene promptly.

However, despite significant progress, the full potential of RPM remains underexploited. Existing solutions often struggle to transform the growing volume of patient-generated data into meaningful, predictive insights. Moreover, many current IoT devices, digital therapeutics, and digital biomarker applications operate in silos—a model that limits their impact and scalability. Siloed operation creates several barriers:

- Integration into existing clinical workflows is complex and resource-intensive.
- Market scalability is limited when solutions are not embedded in a shared, established digital ecosystem.
- The clinical value of data is restricted when insights cannot be combined with other sensors or contextual information sources.

As a result, valuable digital health innovations often remain fragmented, unstandardized, or isolated from hospital IT infrastructures, preventing them from reaching their full potential in clinical practice.

Meanwhile, new technologies powered by artificial intelligence—such as advanced signal analysis, conversational or agentic AI, and the discovery of novel biomarkers from multimodal data—are opening new possibilities. These innovations can unlock previously inaccessible insights into patient health, behaviour, and disease progression. Yet, to be effective, they require integration into interoperable and scalable platforms capable of supporting real-time analytics within complex care environments.

This challenge affects all stakeholders. Patients may experience delayed interventions and limited personalisation of care. Clinicians face data overload and fragmented insights, while hospitals struggle with growing operational pressures and resource constraints. At the system level, unmanaged chronic conditions—especially in cardiovascular care, one of the leading causes of mortality and healthcare expenditure worldwide—generate avoidable costs and inefficiencies. In 2022, cardiovascular diseases (CVD) were responsible for 1.68 million deaths in the EU, accounting for 32.7% of all deaths—making CVD the leading cause of death, well ahead of cancer (22.3%) (source: Eurostat). The economic burden of CVD in the EU is estimated at €282 billion per year (2021 data, source: Economic burden of

cardiovascular diseases in the European Union: a population-based cost study, European Heart Journal).

Integrating innovative digital biomarkers and AI-driven insights into the GetReady ecosystem addresses these challenges in one step. By joining a network of over 250 European hospital partners, solution providers gain access to shared knowledge, best practices, and real-world validation environments—accelerating both innovation and clinical impact. This collaboration aims to unlock the full promise of precision health by transforming continuous data into actionable intelligence for earlier, more personalis ed, and proactive care.

1.5 Challenge Main Objectives

The PrediHeart project aims to foster collaborative research and innovation to enrich RPM platforms with new, interoperable biomarkers and AI-driven capabilities, advancing precision cardiovascular care and improving patient outcomes through earlier, personalis ed, and efficient interventions.

1.6 Solution Functional Requirements

1.6.1 Compulsory Functional Requirements (MUST HAVE)

- Clinically proven technology
- Certified for medical use (CE-marked)
- Interoperable through APIs (not needing to add another application for Healthcare Professionals or Patients)
- Compliant with GDPR regulations.
- Security measures implemented to protect personal health information (including data encryption)
- CE marked technology.

1.6.2 Desirable Functional Requirements (NICE TO HAVE)

- Technology already used by some leading hospitals and care teams
- SaaS technology based scalable cloud hosting solution. Using a sovereign EU cloud would be a plus.
- Multi-language capability (English already included)

1.7 Pilot Scope

1.7.1 Type and number of targeted end-users

End-user type	Role	Number
Cardiologists	They must provide requirements, recruit patients, use, and validate the solution.	5
Nurses, technicians, administrators	They must provide requirements, recruit patients, use, and validate the solution.	5
IT managers	They must validate the compliance of the solution with their security and data privacy constraints.	1

Table 1. Targeted End-Users

1.7.2 Language

Language will depend on the localisation of the selected hospital. The choice of the hospital could be made based on the providers' own localisation and preferences.

By design, the solution will need to include multi-language capability (English already included)

1.7.3 Other aspects

Strong support process must be implemented to address any functional or technical issues during the pilot

1.8 Pilot Set-Up Conditions

1.8.1 Ethical, Legal or Regulatory

- Enter your text here. Max. 200 words.
- SaaS technology based scalable cloud hosting solution. Using a sovereign EU cloud would be a plus.
- Compliant with GDPR regulations.
- Security measures implemented to protect personal health information (including data encryption)
- CE marked technology.

1.8.2 Technological

Interoperable through REST APIs (not needing to add another application for Healthcare Professionals or Patients) or Kafka bus for being integrated into Medtronic Cortex ecosystem

OpenID or SAML protocol for authentication

1.8.3 Other

It is expected to have staff available during key milestones of the project for virtual or physical meetings and regular follow-up calls.

1.9 Expected Impacts and KPIs

Scalability and integration:

- Successful technical integration within the GetReady platform
- Demonstrated potential for reuse across multiple disease areas beyond cardiovascular care.

Clinical outcomes:

- X% reduction in unplanned hospital readmissions related to cardiovascular events or X% improvement in early detection of patient deterioration, based on intervention timing.

Operational efficiency

- X% decrease in in-person follow-up visits through effective remote monitoring

Patient and clinician experience:

- X% patient adherence to remote monitoring protocols.
- X% satisfaction rate among healthcare professionals using the solution (measured via surveys).
- X% improvement in patient-reported experience and outcomes (PROMs and PREMs).

The targets will be determined depending on the selected solution and its technological impact.

1.10 Business Opportunity

1.10.1 Market Size

- Organisational level:
The GetReady RPM platform is already deployed across multiple therapeutic areas within a network of over 250 Medtronic IHS's hospital partners in Europe, including major university hospitals and private healthcare groups. Enhancing the platform with new biomarkers and AI-driven analytics offers start-ups and digital health providers a direct path to scale their innovation within this established ecosystem, gaining immediate clinical validation and exposure to a broad customer base.

- National level:
Across European countries, national health systems are prioritising remote patient monitoring and precision health as part of their digital transformation agendas. In markets such as France, Germany, Spain, and the UK, tens of thousands of cardiovascular patients are already monitored remotely each year, with strong public and private investment in expanding digital health infrastructure.

The European remote patient monitoring (RPM) market (all indications) is projected to reach $1.36 billion in 2025 and grow to $3.17 billion by 2030 (source: Europe Remote Patient Monitoring Systems Market Size & Share Analysis - Growth Trends & Forecasts (2025 - 2030)

1.10.2 Sustainability Plan

The GetReady RPM platform is already deployed across multiple therapeutic areas within a network of over 250 Medtronic IHS's hospital partners in Europe, including major university hospitals and private healthcare groups. The potential for this solution in terms of scaling through this network of customers is consequently very significant. For the supplier, it means the ability to accelerate its development by accessing to Medtronic network of customers and salesforce. Moreover, Medtronic promotes the co-development and co-investments in terms of innovative technologies. Some strategic partnerships could be considered if the pilot is considered as a success as per defined in the criteria of success.