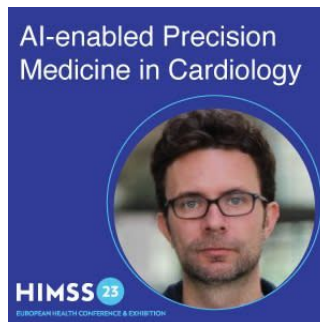


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## #HIMSSEurope23 - AI-enabled Precision Medicine in Cardiology



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Jean-Marc Peyrat is the CTO and Founder of inHEART, a French-based company in Bordeaux that provides precision medicine in cardiology. inHEART generates a digital twin of the heart based on medical images such as CT scans and MRI scans that provides highly detailed information about the cardiac anatomy, and most importantly, identifies myocardial abnormalities that can lead to heart diseases.

### *How does this intervention work?*

One of the applications of this technology is in cardiac interventions, specifically in the placement of cardiac catheters inside of patients to correct electrical connections inside the heart. The challenge with this intervention is that a significant amount of time is dedicated to the diagnosis and identification of the heart's physical activity, which can be very complex and risky. However, with the support of the digital twin that is based on pre-operative imaging, physicians are given the information beforehand to review the case and plan the intervention. The digital twin allows physicians to make a general review of the case, to analyse and identify areas of the heart that are generating electrical disorders, which helps them to manage the intervention more effectively.

Essentially, it makes the planning phase much faster. As a result, the interventions themselves are shorter, reducing the duration to an average of around 5 hours, as you no longer have the diagnostic process within the procedure. Moreover, the success rate of the interventions has increased from 60% to 75%. This improvement benefits around 75% of cases.

The objective here is to expand its applications to cover most of the patient's needs. So, the next step would include training for early diagnosis of diseases, and chronic disease management such as cardiac stroke and heart failure. By covering all the different phases of the patient journey, inHEART aims to provide comprehensive and personalised care.

Source: [HIMSSEurope23](#)

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