www.PATHway2health.eu

Technology enabled behavioural change as a pathway towards better self-management of cardiovascular disease.

Horizon 2020: €4.9m, February 2015 – September 2018, 10 European Partners

Dr Kieran Moran (Coordinator), Prof Noel O'Connor, Dr Catherine Woods, Prof Niall Moyna, Dr Deirdre Walsh, Dr Leonardo Gualano, Haolin Wei, Dr Noel McCaffrey, Clare McDermott, Ciara McCormack, Dr Paul Davis, Prof Regina Connolly, Giulia Migliorato

Insight Centre for Data Analytics

Background

Cardiovascular disease (CVD) is the leading cause of premature death and disability in Europe and worldwide, costing the EU economy almost EUR 196 billion a year. While effective cardiac rehabilitation (CR) improves morbidity and reduces the likelihood of premature death by 24%, **uptake of community-based CR is very low**. Key reasons include: severe lack of programmes, travel time, scheduling issues, lack of peer mentoring, and low self-efficacy associated with poor exercise technique and perceived poor 'body image' (not wanting to exercise with 'strangers').

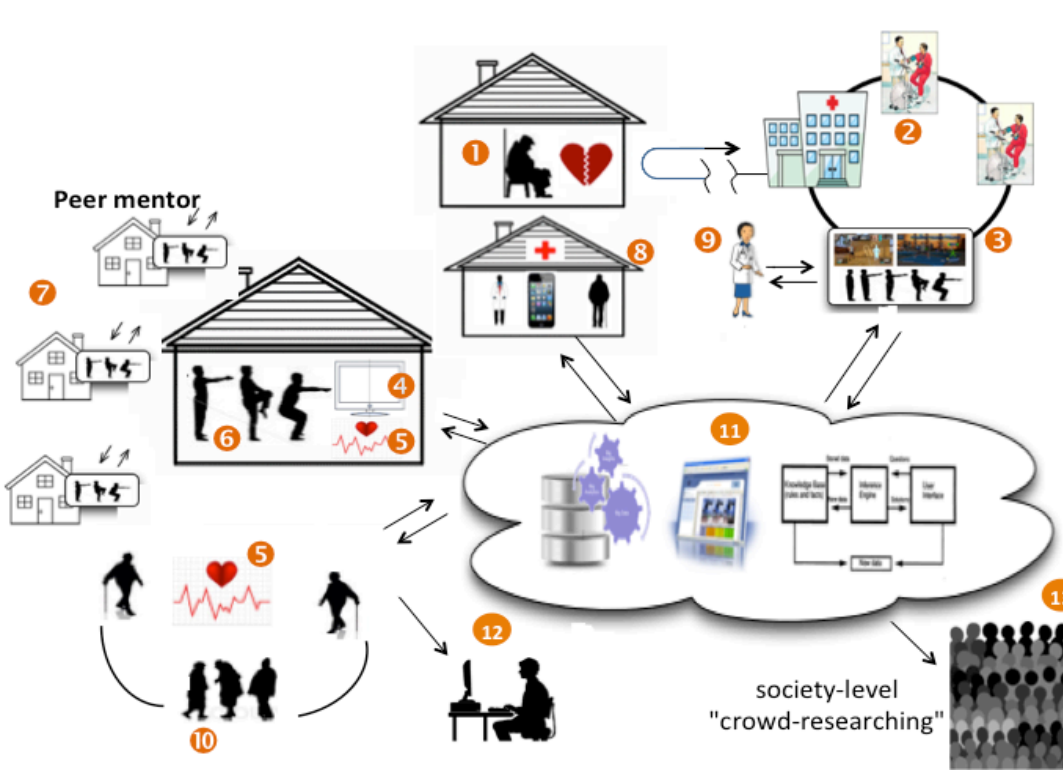
Solution

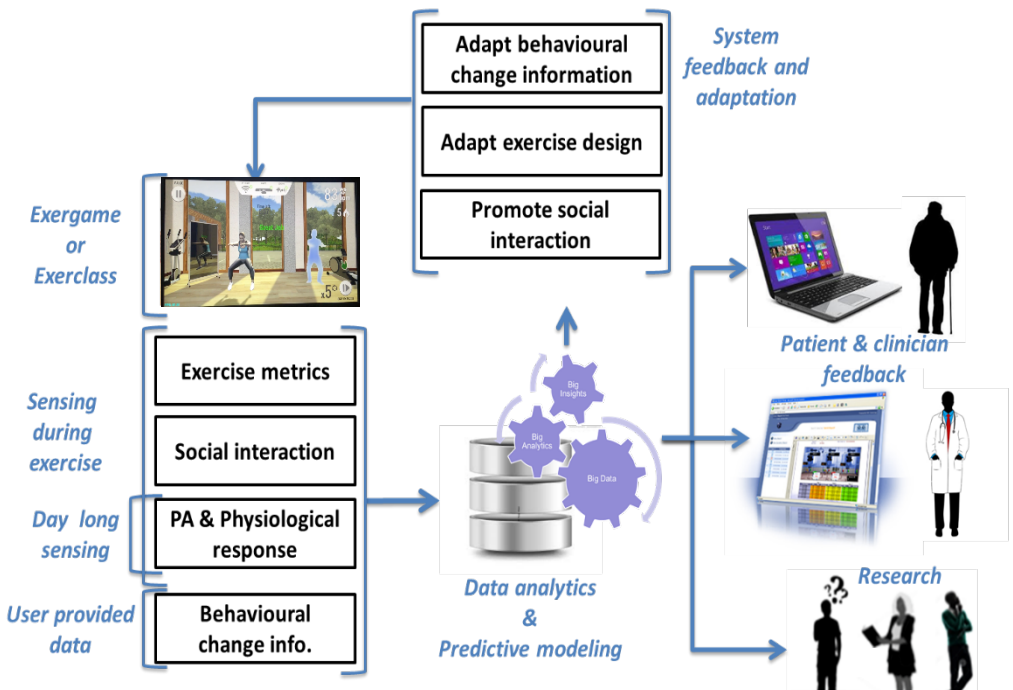
PATHway **provides individualized rehabilitation programs that use regular, socially inclusive exercise sessions** as the basis upon which to provide a personalized, comprehensive lifestyle intervention program (managing: exercise/physical activity, smoking, diet, stress management, alcohol use) to enable patients to both better understand and deal with their own condition, and to lead a healthier lifestyle in general.

This will be made possible by the **provision of an internet-enabled, sensor-based home exercise platform that allows remote participation in CR exercise programs at any time, either by one-self or by a small number of patients, from the comfort of their own living room.**

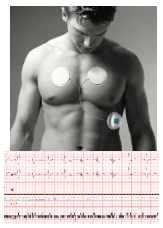
Clinical Trials:

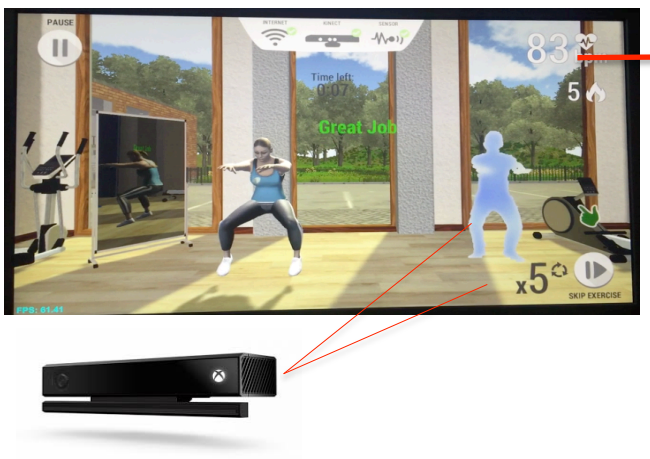
Technology development and integration will be complete in May 2017, with clinical trials lasting **July 2017 – June 2018** (120 participants, each participating for 6 months).





1. Inactive patient suffers cardiac event
2. Hospital CR programme (Phase II)
3. PATHway exercise platform - hospital
4. Computer and exercise sensor
5. Wearable heart and PA sensors
6. PATHway exercise platform – home
7. Remote PATHway users (peer 'recoverees'/mentor)
8. Patient's primary care community doctor
9. Patient's hospital based cardiac doctor/nurse
10. Patient is physically active outside the home
11. PATHway remote data storage
12. Earlier return to work
13. Society level "crowd researching"





@PATHwayProjectH2020
@PATHway_H2020

Consortium: DCU, University of Limerick, Information Technologies Institute, NUROGAMES, Engineering Ingegneria Informatica, KU LEUVEN, ERS, Mater Hospital Dublin, Ulster University, INAB, University of Glasgow

A world leading SFI Research Centre

This project has been funded by the European Union's Horizon 2020 Framework Programme for Research and Innovation Action under Grant Agreement no. 643491

DCU, NUI Galway OÉ Gaillimh, UCC University College Cork, Ireland Coláiste na hOllscoile Corcaigh, UCD Dublin, Science Foundation Ireland sfi For what's next