



THEME:

Research and Innovation

FUNDING (ERDF+MATCH):

€8,151,717.53

MATCH FUNDERS:

Department of Business, Enterprise and Innovation, Ireland and the Department for the Economy, Northern Ireland

LEAD PARTNER:


Ulster University

PROJECT PARTNERS

Southern Health & Social Care Trust; Dundalk Institute of Technology; Dublin City University; University College Dublin; University of the Highlands and Islands.

Start Date: 01/03/2017

End Date: 30/06/2022

 <https://www.ecme-research.com/>

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SPECIAL EU PROGRAMMES BODY

Eastern Corridor—Medical Engineering Centre (ECME)

The project has created a cross-border centre of research excellence within the field of cardiovascular medicine with partners in Northern Ireland, Republic of Ireland and Western Scotland.

Cardiovascular (heart and circulatory) disease causes more than a quarter (26 per cent) of all deaths in the UK; that's nearly 160,000 deaths each year – an average of 435 people each day or one death every three minutes and in the Republic of Ireland this figure is slightly higher at around 30%.

ECME will see researchers from academia and industry collaborate with partners in the health and social care system to create better models of heart disease care and develop new medical grade wearable's and remote monitoring systems to improve clinical outcomes and patient experience.

“Wearable technologies and remote monitoring systems have the potential to transform cardiac care. Smart technologies are helping to move care out of hospital and into the home, reducing pressure on the healthcare system. Our researchers will work to improve existing sensor technologies, point of care diagnostics and monitoring systems to improve clinical outcomes, free up hospital beds, predict patient needs and grow patient confidence and satisfaction,” he continued.

Professor Jim McLaughlin, Director of NIBEC at Ulster University.



Project partners and the CEO of the SEUPB attend the official launch of the ECME project .



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Innovative medical technology has the potential to alleviate some of the current pressures facing our healthcare system. As waiting lists grow and the demand for hospital beds increases, medical technologies such as smart wearable's, user-ready sensor technology and patient monitoring systems can improve diagnostics and patient outcomes; enable patients to live independently.

The project is developing a regional cardiac big data database; enhance user-ready sensor technology; improve smart wearable's; reduce the complexity and cumbersome of point of care diagnostics; and improve smart, clinically relevant patient monitoring in assisted living and rehabilitation environments.

Dr Julie Doyle's ECME related research focuses on how behaviour change interventions have targeted one specific area of health and/or wellbeing, e.g. weight control. However, older adults typically have multiple co-morbidities and therefore a holistic view of the person is necessary when delivering interventions.

This may necessitate delivery of multiple interventions targeting health and wellbeing management (e.g. take vital signs, track and manage medications, sleep hygiene), lifestyle choices (diet, physical activity, smoking cessation), as well as interventions targeted at encouraging technology usage. The ECME project will explore how best to design technology-based systems that use multiple behaviour change techniques to deliver multiple health and wellbeing interventions.



Dr Julie Doyle, Dundalk Institute of Technology.

Project output:

- 81 peer reviewed journal and conference publications with cross-border authorship and the potential to create economic impact.