ADEPT President's Awards 2024
Entry form

Main contact name	Nita Patel
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Award category	Shaping Places for People
Project Title	uCare
Local authority entrant	South Gloucestershire Council
Partner/s if applicable	Toshiba Europe, Bristol Research & Innovation Lab, E2S, Awaretag

Headline summary (150 characters max.)

Delivering excellent care that meet regulatory requirements with positive impact on health, wellbeing, quality of life for users and care givers.

Please note we need at least one supporting image per award submission. Upload your image/s below.

[PDF] Adept uCare Supporting infor....pdf

Shaping places for people: How was this project an innovative response to a significant concern? (150 words max.)

All Local Authorities are facing extreme challenges to understand and deliver satisfactory care for an aging population, with complex need, every reducing budget. Suitability of care home premises is a key factor in delivering a satisfactory service, achieving compliance with statuary and regulatory obligation, whilst having a positive impact on the health, wellbeing, and quality of life of people who use the care services and work in the premises.

It's difficult to understanding the impacts that rising and cooling temperatures has on outdoor and indoor environmental due to climate emergency, understanding the energy usage and greenhouse gases to find solutions address these challenges.

Our uCare project is an innovative response to these significant concerns whereby IoT technology is assisting us to provide a better understanding of environmental factors due to the climate emergency, affecting living conditions for care users and care providers.

Shaping places for people: Please give evidence of the quality of outcomes obtained from the project (for example improved/more efficient services, increased inclusivity for residents, futureproofing the service). (150 words max.)

Our uCare project has and continuing to provide real-time information which is offering seasonal environmental impact for pilot flats and communal areas at Falcon Court Extra Care facilities. The inclusivity and engagement with residents and staff continue provide a better understanding enabling critical measures to be identified which would otherwise not have been known about. This evidential data collection through the sensor installed is providing insightful information about residents' behaviour and impact on the indoor environment. Its already highlighting how particulate flow as residents and carers go

about their daily activities which are an impact due external environment factors and internal fabrication of the building.

The use IoT technology has allowed us to remotely program, maintained monitoring devices with cyber resilience focus has allowed futureproofing for potential solutions. Enabling long-term sustainability and resilience for future solutions that support a positive effect for the residents and their care givers.

Shaping places for people: Please give evidence of the level of collaboration between place and people services (both within the council and with external partners/providers). (150 words max.)

Our uCare project has and continues to have excellent collaboration both internal with Councils Place and People services team, and our four external partners.

Toshiba Europe Bristol Research Innovation Lab our technology partner for our UMBRELLA network which is an open programmable research and innovation industrial 'Internet of Things' network.

Empowering Energy Solutions (E2S) Ltd a start-up with expertise in the assessment of Thermal Energy Performance.

Awaretag a SME that has developed solution for monitoring and predicting mould, damp, insulation performance, and its risks to health.

Housing 21 Falcon Court Extra Care facility staff and residents in Kingswood South Gloucestershire and who allowed us to

A memorandum was understanding put place to develop a trusted relationship between all partners for collaboration our research and development project that demonstrate environmental impacts for everyone with focuses on the health and wellbeing of the individual the live and work there.

Shaping places for people: Please give evidence of the level of buy-in to the project or its goals from members of the local community, health and social care and external organisations. (150 words max.)

Project buy-in has been excellent internally with the Place and People service teams, as well as externally with partnering members and residents. All having a real desire to better understand how building fabric affects environment factors transference, which can impact the health and well-being of the residents and their care givers at Housing 21 Falcon Court Extra facilities in Kingswood South Gloucestershire.

A memorandum of understanding was develop at the start of the project in order to form an honest and trusted relationship between all five partners enabling greater collaboration on our research and development project, where the common goal for project outputs and outcomes was and continues to be a better understanding of the environmental impacts for everyone, with continued focus on the health and wellbeing of the residents and care providers at Falcon Court.

Shaping places for people: Please give evidence of the use or consideration of new sources of investment to fund projects. (150 words max.)

The continued learning from the output and outcome for our uCare project is providing a better understanding of the climate emergency environmental factors impact on the indoor environment. This is enabling further refine a potential packaged, where the individual resident, landlord, friends, or family to select a sensor device for a list of options which can be connected to our UMBRELLA network and platform that provides a dashboard and mobile application provides alert when parameters breach guides with suggestion options to try to mitigate the issue.

We are investing various funding streams from UKRI, Innovate UK, DIST and WECA as part of our UMBRELLA network expansion. can be used by anyone. There is interest from the academic community as we have been trialling 3D modelling of particulates flow. We would welcome any funding opportunity from ADEPT as well.

All categories: please add anything else that supports your award entry

Our project overview was to
1) understand impacts of outdoor environment to indoor environment
2) understand indoor environment to access impacts on individuals to find solution to optimum environment to manage health conditions
3) understand impacts of energy usage and greenhouse gases to find solutions for achieving net carbon zero whilst creating an optimum indoor environment
4) understand the season impacts, uCare will collect monitor and capture information for a full year.

Sensor data collection
- Carbon dioxide (CO_2)
- Formaldehyde
- Particulate matter (PM1/PM2.5/PM4/PM10)
- Volatile organic compounds (TVOCs) (aerosol sprays, cleaning solutions)
- Temperature
- Humidity
- Air Pressure
- Light levels
- Sound Levels
- Occupancy levels