



ADEPT Buckinghamshire Live Labs Programme Adult Social Care

Key statistics

The trial involves the installation of the following hardware/software:

- **5 no. fridge, oven and bathroom sensors to:**
 - Measure how often kitchen appliances such as the oven/fridge are being used (and if they are left open).
 - Measure how often bathroom facilities in the home are being used.
- **5 no. Smart wristwatch devices to:**
 - Measure the health of the user by measuring conditions such as heart rate.
 - Track the location of the user and detect falls.
- **5 x EnLight EnCare Home Hubs:**
 - These are installed in volunteers' homes or offices. They are broadcasting as iBeacons, which the mobile apps (developed by Tapptitude) are able to detect and transmit to the backend (developed by Tapptitude).
- **1 no. app to:**
 - Visualise the data collected from the sensors via the Enlight mesh network in a format easy to analyse.



Overview of trial

Timeline and progress

Since January 2022, Buckinghamshire Council (BC) are trialling an application that allows for real-time monitoring of vulnerable residents with care packages in place. Using sensors in the home this deployment is classed as a proof of concept because the solution is still evolving, and we are currently trialling the application with the use of volunteers.

The trial consists of the following phases:

- Phase 1: Includes installation of the EnLight EnCare Home Hubs which took place in January 2022.
- Phase 2: Installation of the different types of sensors to provide real-time monitoring of the vulnerable residents. Phase 2 has not been installed yet.

Successes

The aim of the pilot project is twofold. Firstly, it is to demonstrate whether it is possible to build a picture of the client's behaviours over a period of time; this information could be used to alert family and carers to any deviation from established patterns that could indicate a cause for concern. The second aim is to allow improved interaction with the local environment using technology and data, the integration of environmental and personal data to build a holistic view of the environment to support people in the community.

The pilot did not run under the actual Adult Social Care Program, therefore, the data will not fully reflect upon the initial objectives of a real trial.

However, taking the learnings from the volunteers, BC are confident that the platform can be adopted, after iterations, by the Council's Adult Social Care program for a real-use pilot and then to full deployment.

Proof of concept has been successful. There is a lot of interest within BC to continue developing ASC beyond the trial period. Funding for this is in place.



Lessons

The installation of the trial had been delayed. Covid and Brexit had the greatest impact on the deployment of the trial particularly on shipping the App from Europe. In addition, the social care team decided not to participate in the trial due to privacy concerns and this led to the redesign of the trial using volunteers from Buckinghamshire Council staff. And also, due to supplier order issues and prolonged waiting times on semi-conductors which have delayed the installation of Phase 2 of the trial.

We identified a number of lessons to be taken forward for future implementation.

- Identify the relevant stakeholders and users and engage with them early on.
- Identify and address issues relating to personal data and associated ethics at an early stage.
- Draw on lessons learnt from other trials and deployments to set a realistic timescale for the trial.

Business case

Benefits

The adult social care sensors have the potential to deliver the following benefits:

- **Connected Buckinghamshire** – Provide a well-connected, efficient network between the elderly population and carers to get the right support at the right time.
- **Growing Buckinghamshire** – Accommodate for economic growth by securing a safe and supportive environment for the ageing population and reduce pressure on carers.
- **Healthy, Safe and Sustainable Buckinghamshire** - Deliver social care budget efficiencies whilst continuing to provide good social care allowing the elderly population and carers to improve their quality of life and improving their health and wellbeing. The technology can be utilised to coordinate appointments to ensure those in need of care are not missing their planned appointments hence getting the right care at the right time as well as making resource efficiencies for the Council and reducing carer burnout, in addition to saving approx. 30% of wasted car journeys made by the carers which will contribute to reduction in CO2 emissions and improve air quality to help Buckinghamshire meet their net zero targets.

Costs

6-month Capital and Operational costs (up to 30 users):

- £51,000 for adult social care sensors trial (Enlight)
- £144,000 for the software development costs (Tapptitude)
- Total Cost: £195,000

Note: Although the above investment covers up to 30 users, BC are only applying the technology to 6 no. volunteers (5 no. users and 1 no. Carer). As this is a proof of concept, the capital and operational costs are not yet established for a 'business as usual' solution.

Next Steps

Subject to agreement with the 'Project Board' Phase 2 may need to be de-scoped from the Buckinghamshire ADEPT Live Labs due to issues with the supply of the semi-conductors for the sensors, current estimated date of delivery is March 2023.