

# Hertfordshire's Assistive Technology solution

22 October 2024

# Background

- In 2019, Hertfordshire County Council outlined its vision to use modern digital technology to transform the way that care services are provided and support Hertfordshire's residents to live healthy and fulfilling lives.
- This digital strategy recognised the need to think differently to help address financial challenges in local government
- A dedicated Assistive Technology Team was established to underpin the delivery of the strategy's ambitions.
- In depth research and analysis led us to develop our own solution in Data Inspired Living
- Continued development, iteration and a desire to share our innovation brings us here today



# Our AT solution



Data Inspired Living is a digital tool for social care practitioners to use as part of care planning for the residents we support.

It consists of an online dashboard, which provides a view of residents' routines at home using various small, discreet sensors that are placed around the home that help to build a day to day picture of someone's normal routine.

# LGC Awards 2024



Shortlisted for LGC Awards in 2 categories - Digital Impact and Innovation

- Over 900 entries for 22 categories
- Presented DIL to a panel of judges with great feedback
- Winner of Innovation Award



*The judges were thoroughly impressed with their approach of co-producing technology that is adaptable and scalable, showcasing a true learning culture aimed at continual improvement.*

*The judges said their dedication, passion, and commitment to innovation serve as an inspiration to us all.*

# Data Inspired Living Equipment



Hub, Power Supply and Data Stick



Contact Strips



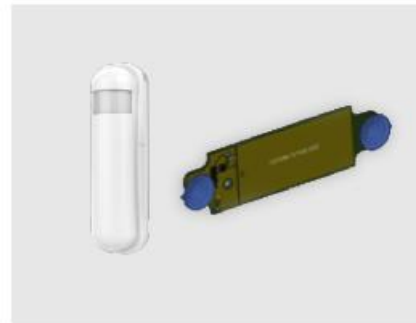
Smart Switch



Multi Sensor



Door Sensor



Toilet Flush Kit



Bed / Chair Occupancy Kit

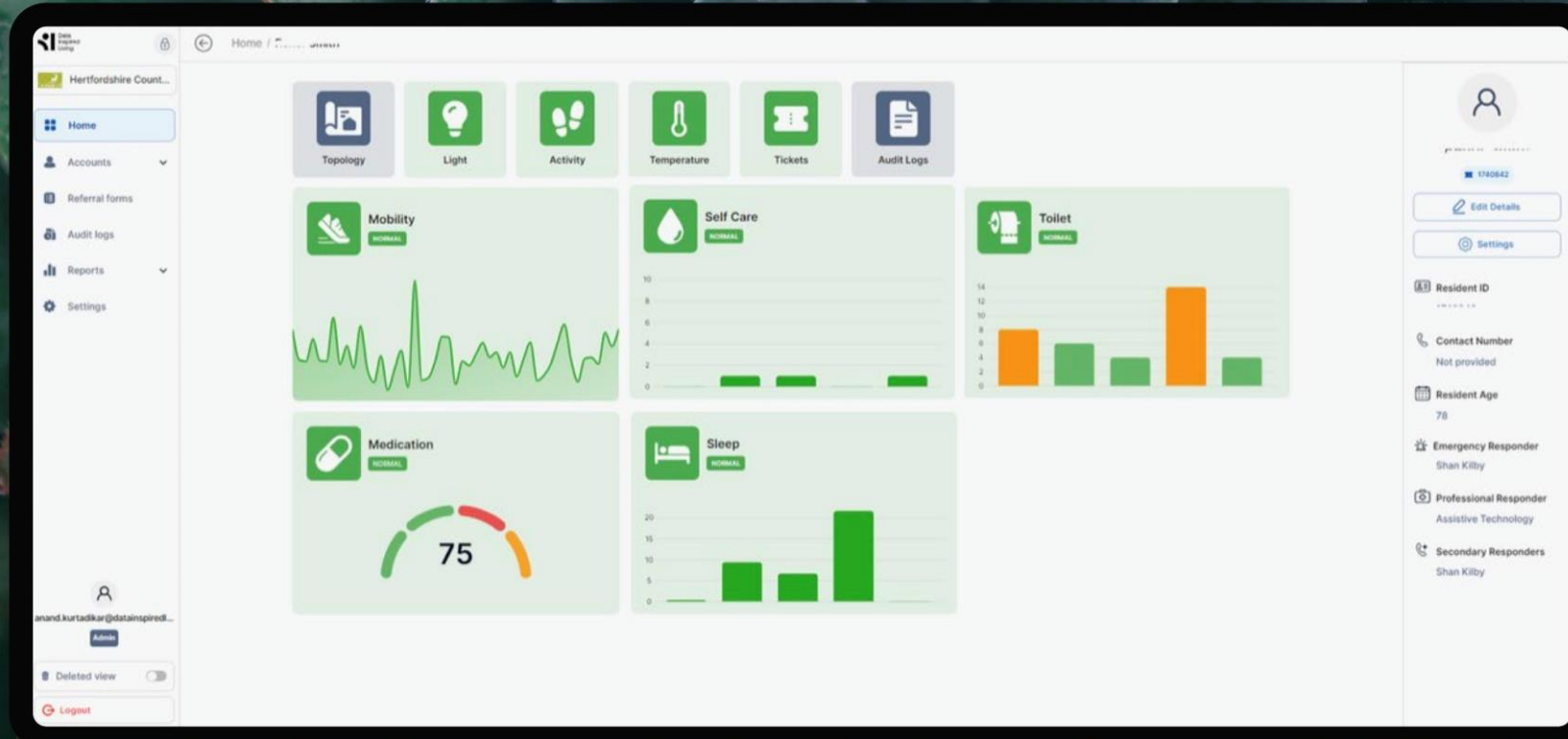


Medication Dispenser

Make and models may vary



# Data Inspired Living Dashboard

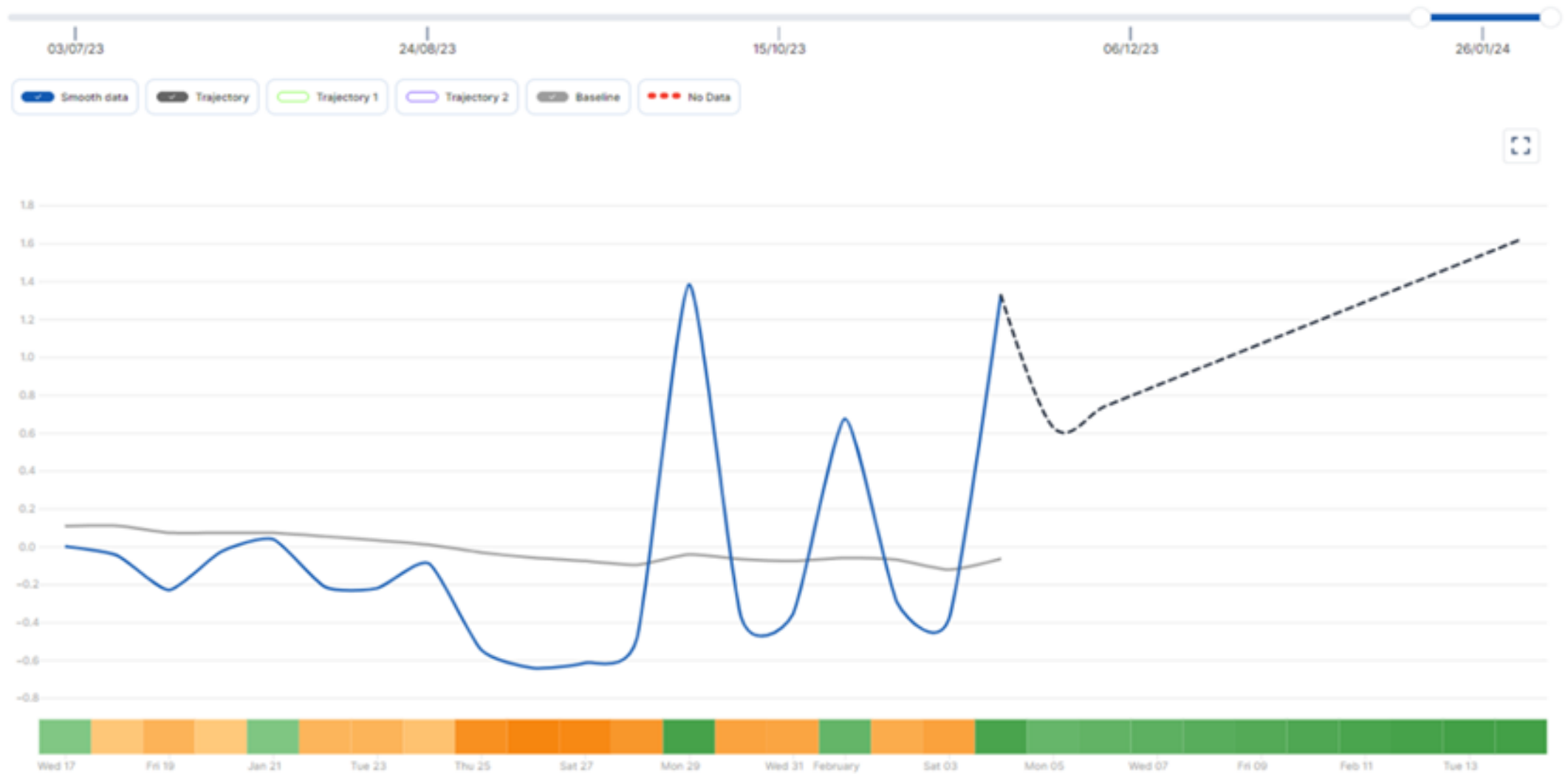


# Mobility

Last timestamp: 05/Feb/2024 17:54:56

Date range

17/01/2024 - 05/02/2024





# Activity

Date range

04/02/2024 18:42 - 05/02/2024 19:00



Appliances Dual occupancy

- + [ ]



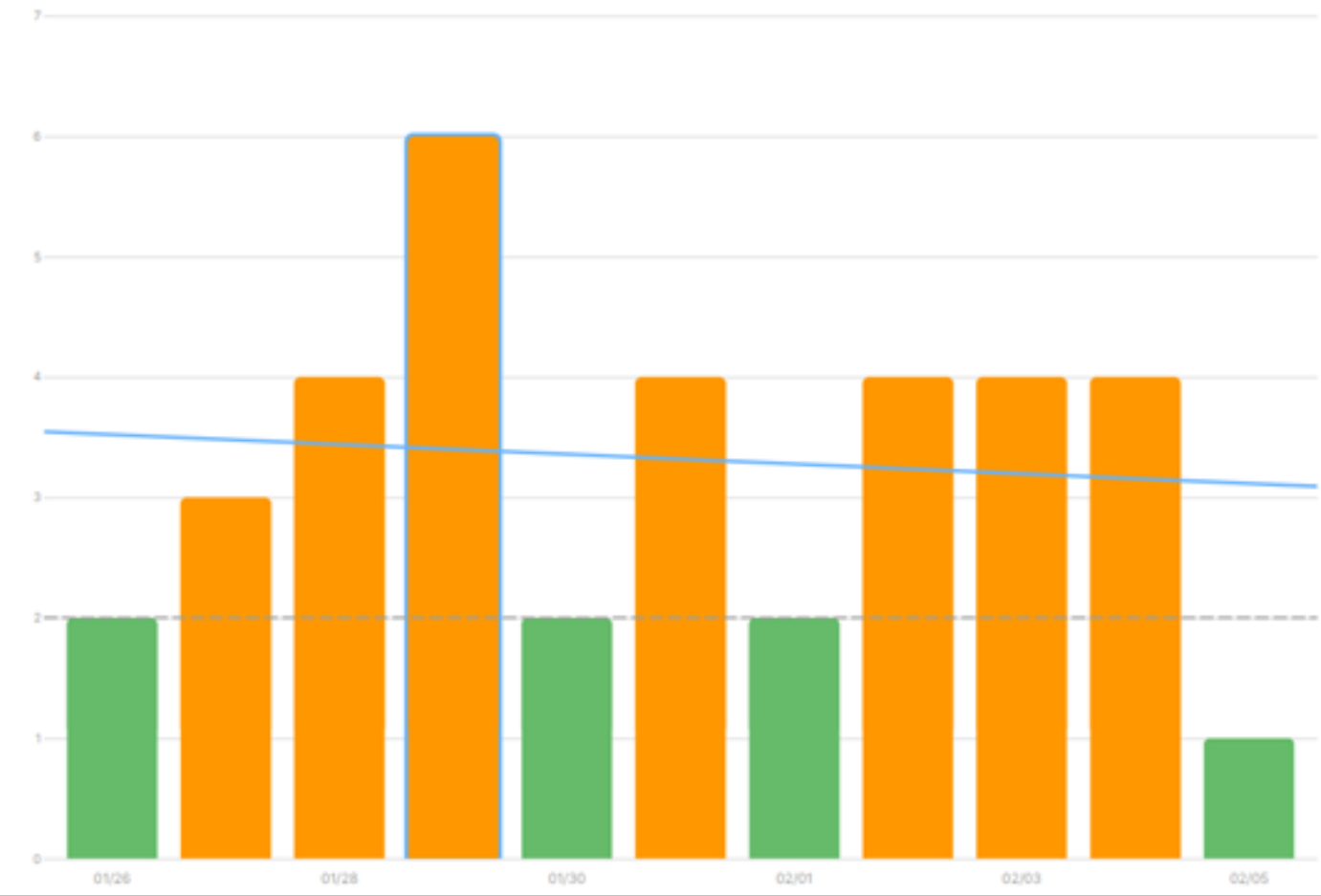
# Toilet

Date range

26/01/2024 - 05/02/2024



Legend: Below Threshold (green), Above Threshold (orange), Trendline (blue), Average Baseline (dashed line).  
Data: Dual Occupancy (dropdown), [Fullscreen], [Refresh]



# Medication

Date range

21/12/2023 - 03/01/2024

20/12/23

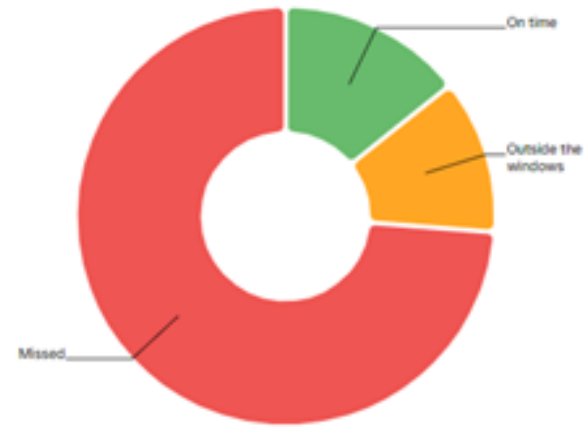
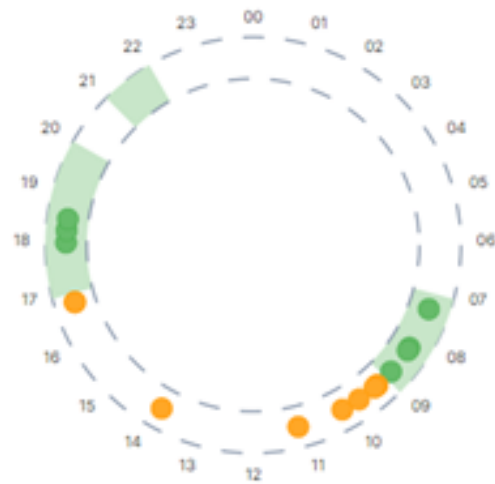
23/12/23

27/12/23

31/12/23

04/01/24

## Medication timings



# Improved outcomes for residents and benefits for the county council



## Residents

- ✓ Maintaining independence
- ✓ Remaining at home
- ✓ Positive impact on health and well being
- ✓ Reduction in homecare commissioned hours

## Hertfordshire County Council

- ✓ Cost savings by preventing a move/delay to a residential home
- ✓ Reduction in ambulance call outs
- ✓ Support frontline workers in creating time efficiencies

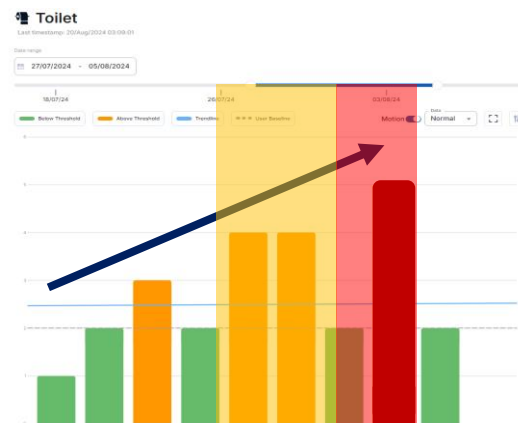
# Preventing hospital admission



Data Inspired Living

Jennifer is an 86-year-old lady who lives on her own. She experiences recurrent urinary tract infections (UTI's) and this has previously resulted in hospital admission.

**This example shows how a recent UTI was identified.**



**Alerts were received at the point mobility showed a sharp decline and toilet use increased, indicative of an infection settling.** An AT practitioner called Jennifer and spoke with her and Tina. Tina said she would call the GP and check for a UTI. Antibiotics were prescribed following this and Jennifer made a quick recovery.

## Intervention

- Motion sensors in all rooms
- Smart plugs on microwave and kettle
- Fridge sensor
- Front and back door sensors
- Toilet flush sensor
- Access to the carer's dashboard

## Outcome

- Resident feels safe and supported
- No further hospital admissions
- Reassurance for her and her sister
- Early identification to resolve issues
- Automatic alerts generated
- Health and wellbeing maintained



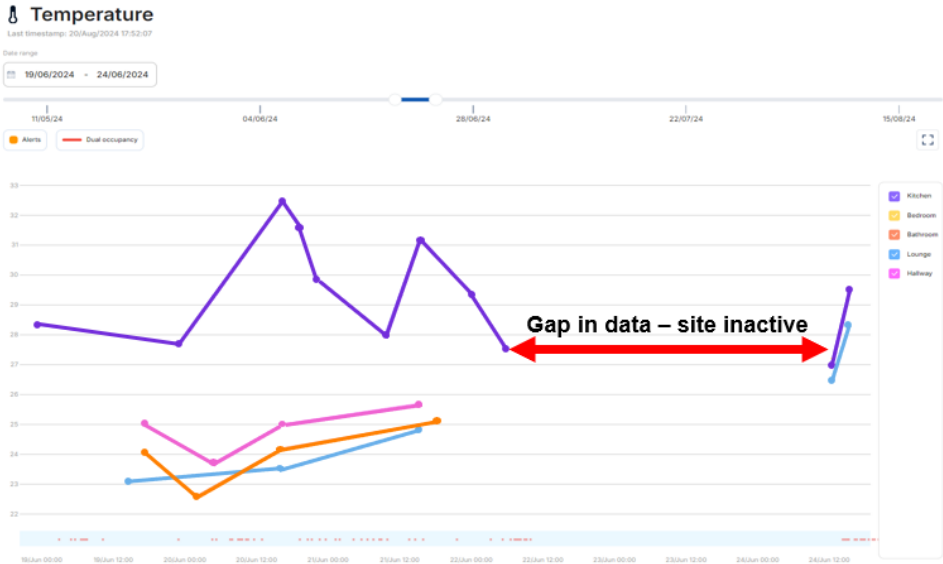
## AT also supports Jennifer by:

- Providing reassurance help is on hand when needed
- Access to a carer's dashboard for her sister which also provides reassurance
- Identification of changes to routine or pattern and alerts to highlight these
- AT can be personalised to the person and relevant sensors installed
- Identifying issues has been able to prevent Jennifer experiencing acute symptoms of a UTI and helping prevent further hospital admissions

# Using AT as standalone care



Donald is a 66-year-old man who lives on his own. He doesn't have any family support and is very independent. **This example shows how we supported with a recent incident.**



**AT also supports Donald by offering choice and control in the way he is supported:**

Donald is not unique in not wanting formal care to support him at home and he is very independent and enjoys a good social life. There are concerns about self-neglect and issues relating to severe depression that would impact severely on Donald, were he not able to maintain a status quo with how he lives.

### Intervention


- Motion sensors in all rooms
- Smart plugs on appliances
- Door sensor
- Fridge sensor

### Outcome

- Resident happy with service provided
- Personalised to suit his needs
- Early contact to support when needed
- Health and wellbeing maintained

**An alert was received to highlight that Donald's system was inactive.** Donald's electricity had run out and he was unable to top up his emergency credit. The AT team had received an alert showing the site was inactive. Donald was supported to get his electricity supply back in place, have hot water for a shower, use his kitchen appliances and continue with his normal routine.





And even when I'm out, I can link onto it,



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healthier Hertfordshire



# Reassurance for family



- Provides evidence that the person they care for is safe to remain at home
- Reduces pressures on family carers and improves quality of life
- Allows return to normality after hospital visits or illness
- Helps to avoid carer breakdown and stress

# Support for professionals



- DIL has been co-produced by practitioners for practitioners
- Another service as part of toolkit to meet residents needs

*“The thing I love most about my job is being able to keep people in their homes and have a decent quality of life. I like that AT can ensure that people are well protected and can live their lives as they choose.”*



# Continuing the journey

- We have the support of our Members and Senior Leadership team both in funding and commitment to continue our BAU offer as well as exploring commercialisation.
- Reaching out to other Local Authorities to share our offer for further improvements and collaboration and to work with us on a trial basis.
- Continuing to develop the offer, reach more residents via different pathways and reach out to the voluntary sector.



DIL is embedded in HCC's digital strategy and recognises the role technology plays in addressing financial challenges



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