



# Telepresence Robotics

TEC Test of Change

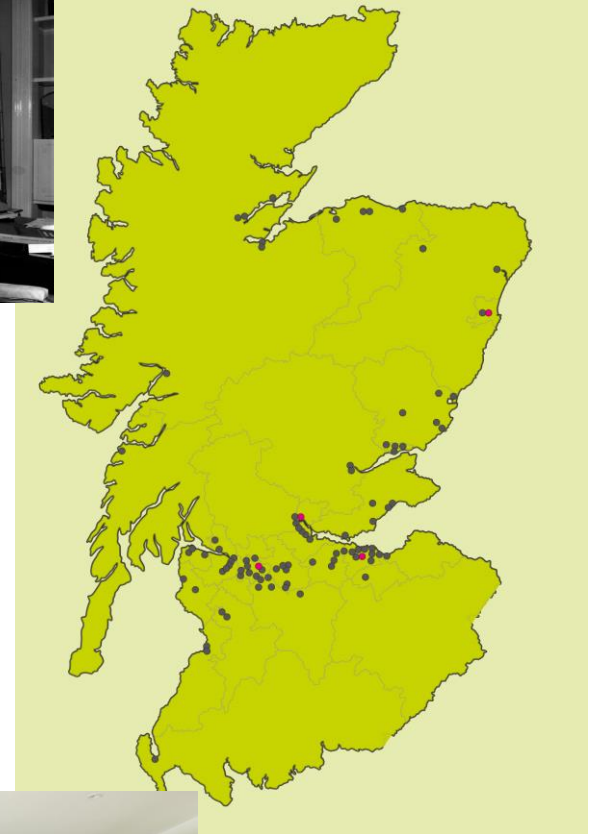


# Blackwood and Test of Change



# About Blackwood

- Founded in 1972 by Dr Margaret Blackwood MBE, a campaigner for the rights and independence of disabled people.
- Pioneers of accessible home design.
- Today over 100 developments across mainland Scotland, including our award winning Blackwood House that is Beautiful, Affordable, Accessible and Connected.
- Over 2500 customers and over 500 staff.
- We provide Care at home, remote digital responder services and care homes
- We invest in innovation to co-design and co-produce products and services that enable independent living



# TEC Test of Change

## Why did we apply?

- Explore the benefits robotics can bring to customers and to improve service delivery at Blackwood
- Explore the benefits that robotics can bring to the wider care sector
- Provide alternative solutions to traditional telecare
- Promote and enable choice and control

## What did we use the funding on?

- Purchased two telepresence robots
- Workshop facilitated by Robots for Good, which brought our 24/7 service, Digital and Innovation staff teams together
- Training provided to 24/7 responder staff on the interface and use of robots



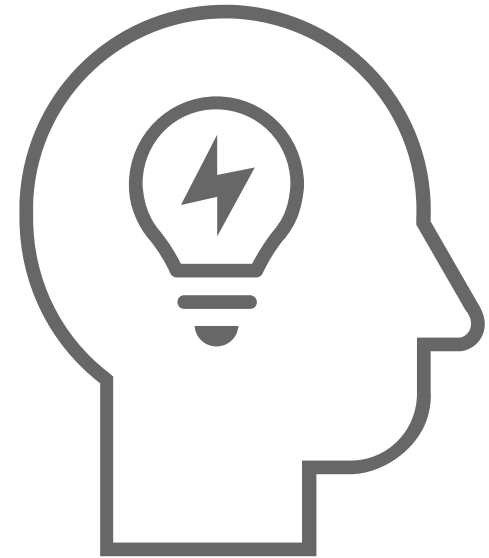
# Telepresence Robots

## Why robotics?

- A telepresence robot is a type of robot that is designed to provide remote presence, allowing a person to interact with others in a different location as if they were physically present.
- Telepresence robots offer services to be delivered in a different way, offering tailored, targeted and adaptable solutions.
- Telepresence allows staff move a robot around a building to better triage a situation without the need to physically attend a site
- Telepresence would provide reassurance until a Responder can arrive



# Outcomes



# Customers



Some customers reported they were unable to hear the responder staff when they had fallen, when away from their digital devices.

Staff also reported not being able to see or hear the customer.

We aimed to improve customer experiences and achieve better outcomes for those customers

We conducted trial situations in customer homes using the robots.

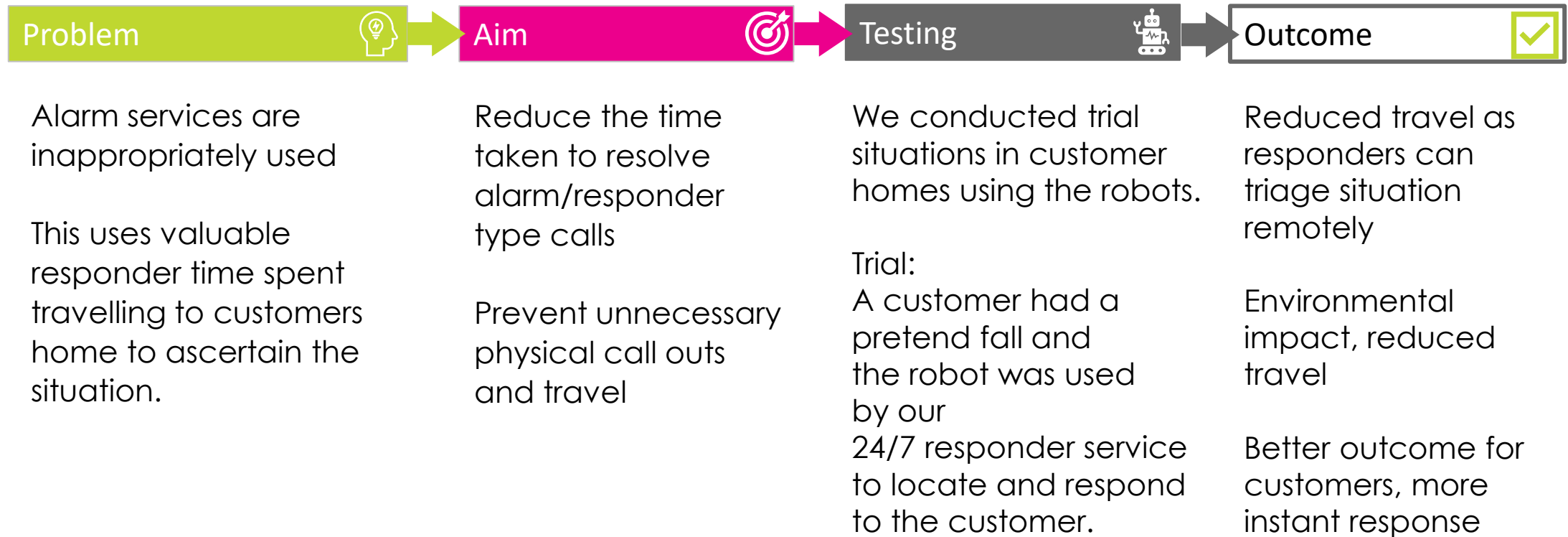
Trial: A customer had a pretend fall and the robot was used by our 24/7 responder service to locate and respond to the customer.

Customer was attended to instantly without having to wait for responder to travel to her home

Completely unreliable on customer actioning anything



# Responder Situations

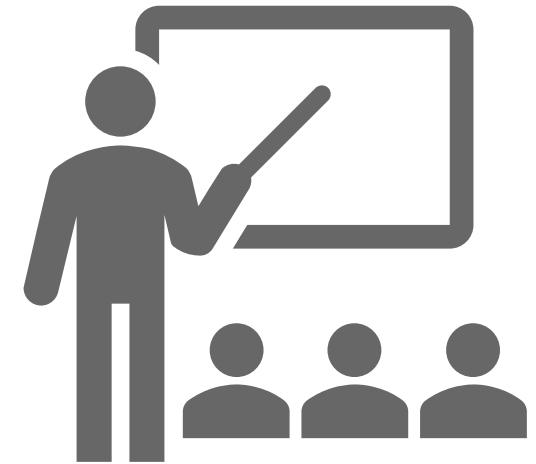




# Emergency Services



# Learning and Future Work



# Learning

## Key Points

The condition of the home was not something we had adequately considered as part of our assessment process, nor had we made any criteria to assess this or discuss with the customer about what was expected from them.

There has been a noticeable increase in the confidence of the staff using the Robot.

## Practicalities

When setting up the telepresence robots we had to do initial technical set up work, connect to local home WiFi, map the home environment, set the robot for use in the home and work with the 24/7 responder service to test and trial the robot.

## Challenges

Clutter and some carpets were listed as problems by all interviewees as the robot would struggle to sense the home-base and manoeuvre round the home

Some staff initially lacked confidence to use the robot.

## Engagement

We engaged with the local HSCP who visited the site to see a demonstration of the robot being used, got to meet the customer, and hear positive feedback about the trial use.

We engaged with customers and identified more test users however there were practical issues with home environments that we have now identified.



# Now and the Future

The funding provided by TEC has enabled Blackwood to:

- Secure Innovate UK funding, leading to further collaboration with the National Robotarium
- Collaboration work developing and testing new technologies and new ways of working
- Have a Knowledge Transfer Partnership associate work with us to develop telepresence robotics applications and integration to CleverCogs™

**Emergence** project group of researchers, businesses, end-users, etc., designed to build knowledge and capability to enable healthcare robots to support people living with frailty in the community; aimed at older people at risk of, and living with frailty, whilst helping to contain spiralling care costs.

**Robotics KTP** project involves user and staff to co-design the use of the Blackwood telepresence robots in homes, where mapping, testing and integration will begin with our CleverCogs™ technologies



# Contact Details

Colin Foskett, Head of Innovation

 ColinF@blackwoodgroup.org.uk

William Wright, Project Lead, Innovation

 WilliamWright@blackwoodgroup.org.uk

Linda Brown, Senior Care Services Manager

 LindaBrown@blackwoodgroup.org.uk



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Thank you 

