

## **Neuro-Rehabilitation Without Boundaries**

**Part of Lake District Calvert Trust** 

## A spotlight on a ground-breaking new approach to Acquired Brain Injury (ABI) Rehabilitation



An Outcomes Review of the first six months

## May 2022

"As the culmination of several years of meticulous planning and hard work, and despite a global pandemic, Calvert Reconnections opened its doors for the first time in June 2021.

Our team of uniquely skilled staff was thrilled and ready to go. It has been the most exciting time to see all our planning and preparation come together and start the journey of our new Rehabilitation Centre.

We have had to think outside of the box to achieve our dream of marrying clinical rehabilitation, care, and adventurous activity. The level of passion and excitement amongst our highly skilled and specialised team has been obvious from the outset. From our admin team and catering manager to our management team, rehab coaches and clinicians, our team of staff shares the same goal of delivering rehab in an innovative and supportive way: delivering "Rehab without Boundaries".

We believe our unique and ground-breaking style takes a truly holistic approach to rehabilitation, focusing on engaging our participants in both fun and adventurous outdoor activities alongside functional rehabilitation tasks for daily living. We aim to develop skills, both physical and cognitive, which are transferrable beyond a participant stay at Reconnections.

Within our first 6 months of being open, we have welcomed multiple participants through our doors who have experienced real life changes. These changes have been clearly illustrated in the outcomes which we can now begin to share.

Being part of the changes to participants' lives has been a privilege and the feedback from family and professionals involved has been inspirational."

Claire Appleton
Head Of Service





# **Key Highlights**



100%

needed less support when discharged

Participants have achieved 90% of their goals



60% have progressed onto independent living

100% improved their ability to carry out everyday activities





100% of our participants reported an improved hope for the future and an improved sense of purpose and direction in their life

80% of participants reported they feel more empowered through greater participation and control over decisions that affect

their lives





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#### Who is the service for?

- Individuals with an Acquired Brain Injury (ABI)
- Desire to engage in a specialist residential rehabilitation programme
- Medically stable
- 17 years +
- Funding for a residential placement has been considered
- Onward plans in place prior to the commencement of the rehabilitation programme

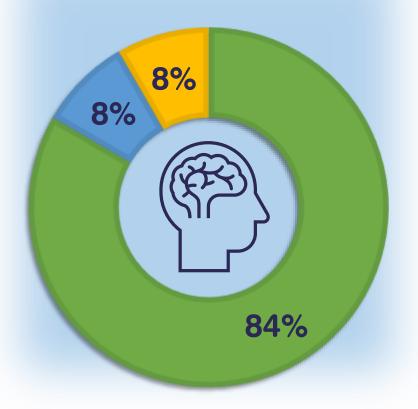
Due to the personalised nature of each individual programme, we have so far been able to adapt to work with a variety of ages. This has ranged from 17 years old up to 73 years old.

To date, most of our participants have had a Traumatic Brain injury. The breakdown is as follows:

- 84% Traumatic Brain Injury
- 8% Stroke
- 8% Other



■ Traumatic Brain Injury (TBI)
■ Stroke
■ Other



## **Length of Programme**

This is very much led by our participants' needs, goals and desire.

After an individual's assessment period, and in combination with the participant and their support team around them, a recommendation is made for the subsequent length of programme.

We can be fully flexible around each participant's needs. To date, duration of participant stay has varied, some for just 6 weeks, and others as long as 24 weeks. On average the length of stay is 13 weeks.

"Reconnections is different to other rehab units, in a good way" participant feedback

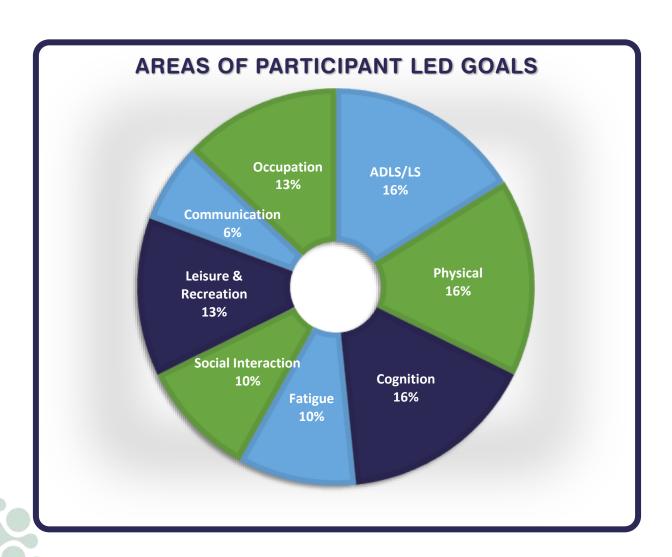




#### Goals

The participants, their families if appropriate, and the clinical therapy team work together to establish goals which address a range of areas including physical rehab, mental wellbeing, and cognitive communication; all with the aim of maximising function. Each goal is led by the participant to ensure maximum engagement and progress. The process of goal setting is facilitated by our clinical team of Neuro Occupational Therapists, Neuro Physiotherapists, Neuro Speech and Language Therapist and Neuro Psychologist. The process then feeds into the development of a personalised rehabilitation plan using a combination of functional and outdoor activities, uniquely integrated with clinical therapy.

Opportunities are created for repetition of new skills and tasks, facilitating learning through doing. The outdoor activities each have elements which work towards achievement of these functional goals. For example, canoeing will promote balance, therefore supporting the individual to sit or walk more effectively, utilising less energy and improving safety and confidence.



## What are our participants goals?

Whilst all of our participants have an interest in engaging in outdoor activities, the goals that we work towards are very varied. Many of our activities can be used to work across numerous goals. For example, cognitive goals such as improving planning, sequencing and problem solving, are then integrated with more physical goals such as balance, core stability and coordination. When supporting our participants with goal setting, a SMART approach is taken. This means all goals are 'specific', 'measurable', 'achievable', 'relevant' and 'time bound'.

#### **Example: Anna's Story – Her Goals**

Anna is 38 years old. She acquired a severe Traumatic Brain Injury 4 years ago as well as musculoskeletal polytrauma. Her goals were very varied and ideally suited to a programme of rehabilitation at Calvert Reconnections.

Prior to accessing Reconnections, Anna spent much of her time at home with little purpose and direction. She was bored and frustrated, having previously held a challenging managerial job. Anna struggled with some appropriate social interactions, and struggles to engage with her children.

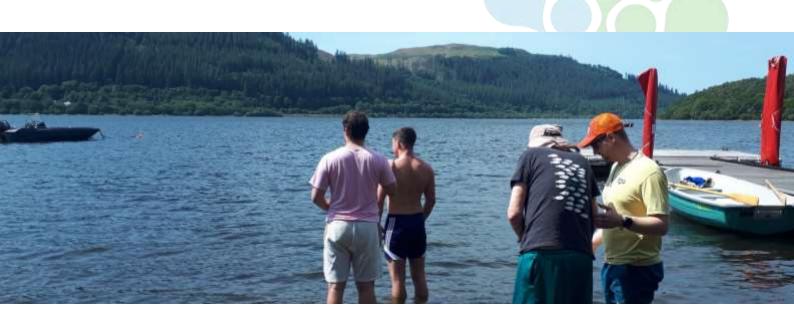
With support, she developed her goals for rehabilitation to include:

- 1. Find meaningful and purposeful activity in her daily routine.
- 2. Take ownership of her daily routine and structure including initiating activity.
- 3. Establish a greater awareness of fatigue levels and incorporate regular rest periods into a daily routine.
- 4. Identify and implement coping mechanisms and strategies for frustration.
- 5. Identify barriers to communicating her emotions / feelings to others.
- 6. Improve cardio-vascular fitness to be able to cycle 10km comfortably in less than 1 hour.

"I now have confidence to go about my ways"

participant feedback





As participants are encouraged to be involved in every level of their goal setting, we are finding engagement in working towards these goals is high, resulting in improved outcomes and numbers of goals achieved. Wherever appropriate, a participant's goals will be set with a joint approach that is clear and open, leading to a clear pathway for an explicit rehabilitation plan. In some cases, this has not been appropriate, and a more subtle approach has been required. In these cases, clinicians are guided by an individual's interests and needs. When this is combined with the fun, functional and engaging approach to rehabilitation provided at Reconnections, we are finding very good engagement to work towards goals.

"I feel comfortable here, all the staff are really nice, they put up with me being confused or disagreeing, they are very patient." participant feedback



This success translates to our participants having achieved **90% of their agreed** goals on discharge from Reconnections. This could be further broken down into

- 100% of goals being achieved when 1-5 goals were identified and agreed and
- 79% of goals were achieved when there were 6 or more goals.



Participants have achieved

90% of their goals at Reconnection



## Rehabilitation: Our programme

Once a participant's SMART goals have been jointly established and agreed, the clinical team will formulate a rehabilitation plan. This rehabilitation plan will inform each participant's unique weekly schedule. Their schedule will combine clinical assessment and strategies with meaningful activities of daily living and outdoor activity. This may include activities such as independent living skills, outdoor activities which combine specific cognitive, physical, or behavioural goals or clinical activities.

Please see our website for more details around an example rehabilitation plan.

#### https://calvertreconnections.org.uk/our-programme/

At Reconnections we have a very large rehabilitation toolbox and we constantly strive to expand the horizons of what is possible with brain injury rehabilitation. We are a diverse and innovative service. Here are some of the outdoor activities we have incorporated into our participants' rehabilitation programmes so far:



## What do participant improvements look like?

#### **Outcome Measures**

Our clinicians use evidence-based clinical outcome measures to assess and monitor the participant's progress.

Typically, the following outcome measures are used to show changes made by a participant between admission and discharge:

- Mayo-Portland Adaptability Scale-4
- FIM + FAM.
- Independent Recovery Outcome Counter (I-ROC)

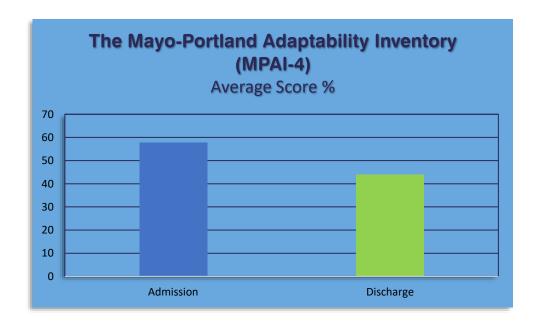
During the in-depth assessment period clinicians will also decide on other profession-specific, evidence-based Outcome Measures, according to the participant's needs. Again, these are used to measure progress during their stay at Reconnections.

Clinicians will also use their own objective and standardised professional assessments to inform clinical decision making and any other assessments relevant to the participant's needs.

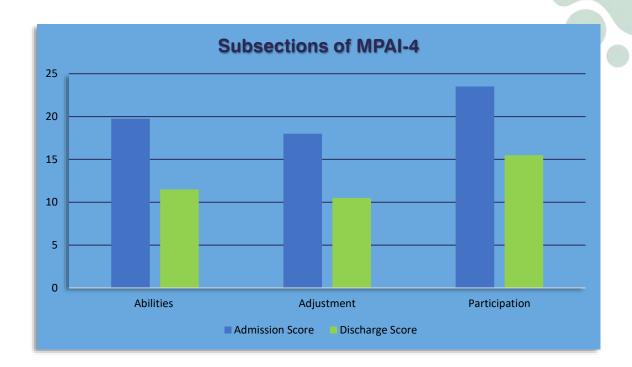
#### The Mayo-Portland Adaptability Inventory (MPAI-4)

The MPAI-4 is a measure that assesses the range of physical, cognitive, emotional, behavioural and social problems that participants may encounter after an acquired brain injury. It is a tool design to measure disability after a brain injury. **The lower the score, indicates greater ability**.

It is a holistic tool that measures an individual's impairments, their ability to adapt to their brain injury and their participation in activities.



On admission participants' average score is 57.8. After a period of on average 13 weeks rehabilitation, this score improved to 44, an average 33% improvement. The assessment is broken down into 3 subsections: Abilities, Adjustment and Participation. **The lower the score, indicates greater ability**.



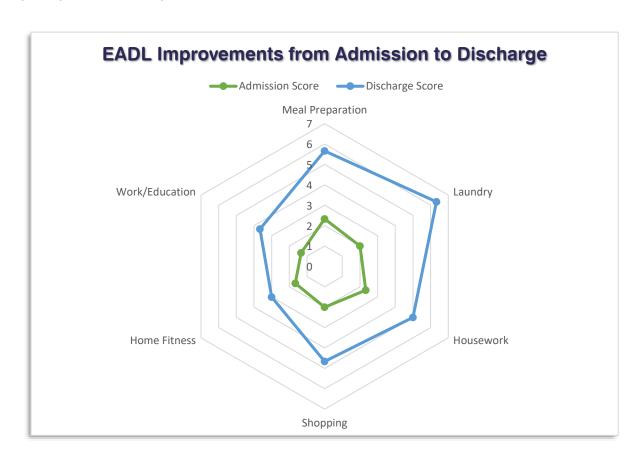


## The Functional Independence Measure and Functional Assessment Measure (FIM+FAM)

The UK FIM+FAM is designed for measuring disability in the brain-injured population. The Functional Independence Measure (FIM) is a global measure of disability. The FAM was developed as an adjunct to the FIM to specifically address the major functional areas that are relatively less emphasized in the FIM, including cognitive, behavioural, communication and community functioning measures. The UK FIM+FAM has an ordinal scoring system for all 30 items from 1-7 (1=complete dependence and 7 fully independent). Therefore, a higher overall score indicates more ability.

The Extended Activities of Daily Living is a module of the FIM+FAM, used to measure 6 items related to everyday living and household management including Meal preparation, laundry, housework, shopping, home finances and work/education.

An average improvement of 14% is seen globally across the FIM+FAM. But more significantly on average participants at Reconnections have seen **149%** improvement in their Extended Activities of Daily Living Score. This was evident in participants progress in real meaningful activities and participation in the daily routine of life.



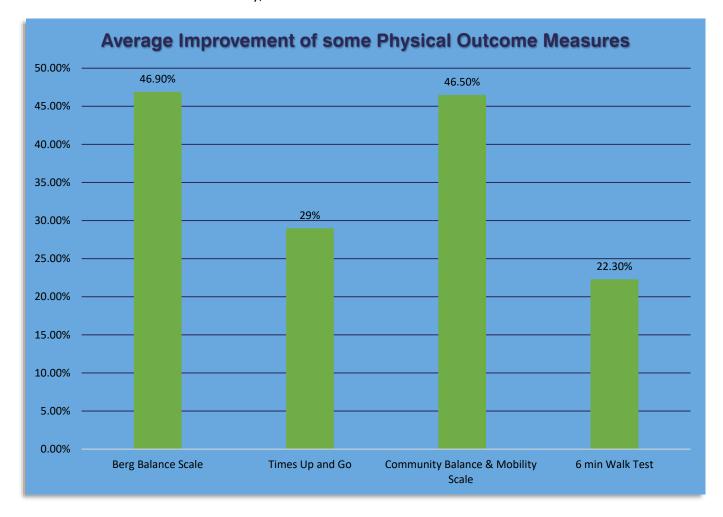
This improved ability, adaptability and participation measured in the MPAI-4 and the FIM+FAM has resulted in 100% of our participants reporting an improved hope for the future and an improved sense of purpose and direction in their life. Furthermore, our participants reported a 210% improvement in their purpose and direction.

### **Examples of profession-specific Outcome Measures**

Each outcome measure is carefully selected in line with an evidenced based approach to measure accurately and sensitively each individual participants needs.

#### Physiotherapy:

The carryover from the outdoor physical activity programme, the physiotherapy- specific exercise programme and integration into daily activity and function has resulted in significant changes in specific outcome measures. These changes in figures are also reflected in aspects of the holistic outcome measures such mobility, self-care and leisure activities.





## **Multi-disciplinary Outcome Measures**

#### **I-ROC**

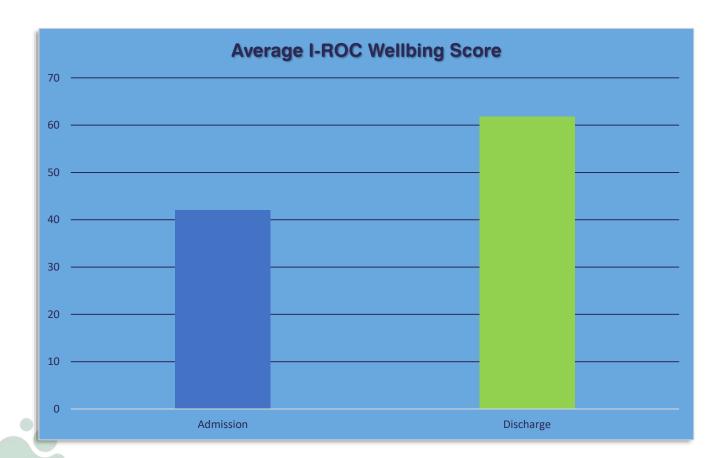
The Individual Recovery Outcomes Counter (I.ROC) is an Outcome Measurement and tool designed to measure and support wellbeing and mental health. It is designed to provide engagement between participants and clinicians, by creating a holistic picture of recovery and wellbeing. It is used in the goal setting stage at the start of the programme to help identify high priority areas for an individual. It is repeated on discharge to measure progress and to help identify any further areas for development on transition into the community.

It is a twelve-point scale organised into 4 areas:

- 1. Home
- 2. Opportunity
- 3. People
- 4. Empowerment

Higher scores indicate improved wellbeing.

Our participants/ average score on admission was 42, this increased significantly to 62 on discharge, an improvement of 48% in participant wellbeing.



## **Average Wellbeing I-Roc Outcome**

—Admission Score — Discharge Score



Participation and Control



#### What do these changes really mean?

This change in real meaningful function and activity has been evident in the outcome measures, but also in our participant's self-reports.

When assimilating the common areas across the different outcome measures significant patterns have been observed including:

- 89% improvement in participant memory
- 75% improvement in participant anxiety
- 58% improvement in participant depression
- 50% improvement in Fatigue levels
- 42% improvement in intitiation

This improved function, activity and occupation has carried over to help affect the real meaningful change in individuals life and wellbeing.

At Reconnections our belief in taking a holistic approach is integrated into everything that we do. This sense of providing opportunities, supporting positive risk-taking and guiding participants to find a way that suits them, has had significant impact on their wellbeing and engagement.

## "Reconnections has turned my life around. I feel fitter both mentally and physically. It's helping me to live a better life." participant feedback

#### The transition of skills

The aim is for the improvements to our participants' abilities, adjustment, participation, and wellbeing to be transitioned into their lives post discharge. The clinical and rehabilitation team work closely with participants' families and community support team throughout their stay. This has resulted in optimising the transfer and carry over of skills into the community.

Our participants' families and/or support teams are encouraged to attend meetings, visit regularly, and participate in activities where possible.

Approaching the end of a participant's stay, there are a number of options available to the participant and their family to support transition back into their local community. These include for example:

- Support team visiting participant at Reconnections
- Graded discharge visits at home
- Work closely with partner organisations in the participant's local community
- Support teams attending progress meetings
- Follow up support meetings

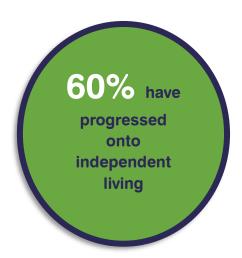


## **Independent Living at Reconnections**

There are two independent living flats on site where participants have their own private living space with a bedroom, bathroom, small kitchen and living room, whilst also having full access to the rehab coaches and clinical teams. This is designed to help participants maintain or enhance current skills or to develop the skills required for onward independent living, with the security of our familiar support team on hand if and when needed. The clinical team assess each individual's suitability for the independent living flat and develop a programme of graded transition to build skills and confidence, as well as guide progression.

To date 60% of participants have progressed onto living in an independent living flat at Reconnections.







## **Vocational and Voluntary Opportunities**

Whilst at Reconnections participants can be supported into educational, vocational or employment opportunities. As a well-established, and well recognised charity, we have many links with organisations and business in the local community who help facilitate this.

To date, participants have engaged with voluntary placements in a variety of areas including hospitality, retail, and a within the riding stables.

Vocational placements can offer opportunities for exploring areas of interest for potential future employment opportunities in community post discharge. By engaging with a regular structured schedule for vocational work it also allows for clinicians to monitor participant fatigue levels, target areas of cognitive deficit with focused rehabilitation as well as review engagement and long-term interest in a repeated vocational activity.



"I am working on my dorsiflexion and this is brought in to my activities each day." participant feedback

## What happens after Reconnections?

Prior to a participant starting their rehabilitation programme at Reconnections, thought is already being given by the clinical team to that individual's personal circumstances and their potential goals for change after discharge. As a team, we are conscious that the benefits of a residential rehabilitation programme are only relevant if the improvements can be transitioned successfully into the community after leaving. A significant emphasis is placed throughout a participant's journey at Reconnections on functional and meaningful rehab, with a view towards realistic onward changes.

To date, 100% of our participants have reported improved ability to carry out everyday activities. This has resulted in some participants requiring reduced support around these activities which has a positive impact on their onward transition.

40% of these individuals progressed from living with others whom they were dependent on, to independent living, with a support package in the community.

100% of participants improve their ability to carry out everyday activities, therefore reducing the support needed when transitioning home

We have supported 80% of our participants to go on to further educational or vocational opportunities when they transition home.

"You have made me realise you can get me closer to how I was before my accident. I accept who I am, I couldn't do that before, I am OK with myself now." participant feedback

# "Reconnections has given me the opportunity to achieve my independence." participant feedback

With the access to multiple different outdoor activities, participants often find a new leisure activity they enjoy whilst with us. Attention is always paid to how this can be transitioned onwards for the future.

80% go on to further educational or vocational opportunities when they leave

And this has been successful with 100% of our participants going on to carry over a new skill or leisure interest. This may vary from gaining a basic climbing qualification which will then be recognised at indoor climbing walls and clubs around the country to allow the participant access to these independently, to horse and trap driving qualifications or horse care qualifications that can be recognised

for further progression in other stables.

Other qualifications could include personal performance awards in British Canoeing, Royal Yachting Association, National Indoor Climbing Award Scheme and Equestrian qualifications with the British Horse Society.

Our aim at Reconnections is to empower individuals to be more independent, with a greater sense of purpose and direction. To date, our participants have left after the end of their rehabilitation period with more hope for their future and a feeling of better emotional and mental wellbeing.



#### The Future for Reconnections

Since 1976 the Lake District Calvert Trust has been welcoming guests with disabilities to our dedicated centre so that they can enjoy the benefits of outdoor activities in a safe and accessible, yet challenging environment.

The opening of Calvert Reconnections in June 2021 has been the culmination of several years of meticulous planning and preparation.

Despite the challenges of a global pandemic our outstanding team has worked together to set up and deliver exceptional rehabilitation in a ground-breaking way. This inspiring and imaginative way to provide unique rehabilitation opportunities has provided participants with hope, direction and opportunities they may not have had in more traditional settings. Our participant outcomes to date have been unquestionably life changing for the good, inspiring ambitions to further progress and develop.

Our mission is to enable people with disabilities to achieve their potential through challenging activities in the countryside.

#### Our values that drive us:

**Ambitious** - we stretch ourselves and others

**Sensitive** - we understand and empathise

**Inspiring** - we encourage and stimulate

**Imaginative** - we see beyond the obvious

Flexible - we adapt and innovate

The Trustees of the Charity work closely with Claire Appleton, the Head of Service and the full team at Reconnections, striving to progress and develop.

The feedback from participants, along with our clinical outcomes and input from our staff team underpins our future service development.

"The Lake District Calvert Trust has been providing wonderful outdoor experiences for disabled people, including those with brain injury, for 40 years, and it has developed a terrific infrastructure of facilities, both outdoor and indoor, and of staff. They are going to use that experience and infrastructure as the foundation for a clinically led brain injury rehab package centred round meaningful but enjoyable activities. There will be a strong emphasis on families, and on the transition back home. It is a genuinely ground breaking initiative"

Bill Braithwaite QC, who is working with Calvert Reconnections as an expert advisor

- We continue to strive to deliver
   rehabilitation without boundaries providing the highest quality service based on combining evidence-based clinical practice with innovative outdoor activities.
- We will continue to work closely and listen to all our stakeholders, but most importantly listen to our participants and act on their feedback.



## In the next 5 years we aspire to:

- Continue to establish, build and grow our outstanding, innovative rehabilitation service.
- Continue to provide ground-breaking evidenced based rehabilitation without boundaries.
- Continue to build relationships and communications with partner organisations to facilitate excellent rehabilitation.
- Learn and develop as we grow and support our team in all possible opportunities to learn and develop.
- To review and adapt the evidenced based outcome measures used.
- To continue to progress, develop and broaden treatment options and activities available.
- Explore new ways in which technology can help deliver our aims.
- To work with universities and individuals to create opportunities to be involved in research. By developing these opportunities, we can all learn and develop and help shape a different shape for rehabilitation services in the future.

"Doing different things all the time matters"



#### **Contact Details**



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