

# LEADER

Community-Led Local Development



National Rural Network



## PURCHASE OF EXOSKELETON REHABILITATION SUIT

### LEADER Case Study Summary

The 'No Barriers Foundation' has made an Exoskeleton Bionic Rehabilitation Suit operational in a rural setting allowing those with Neurological injuries and illnesses, such as spinal injury, stroke and MS, to rehabilitate in their own communities. The Suit is available in satellite locations around Donegal and can be hired by making an appointment. It is accompanied by a qualified physiotherapist at all times. This allows service users to avail of a self-sustaining and affordable service, which otherwise wouldn't exist. This project recognises a disadvantaged group in rural Donegal and gives them an opportunity to improve their social, physical and mental wellbeing.

### Context

The Bionic Rehabilitation service is not feasible to roll out either privately or by the Health Service Executive (HSE). Once patients are discharged from care within the HSE, there is generally very little on-going support. The No Barriers Foundation is a non-profit organisation based in Letterkenny, Co. Donegal and their aim is to create an inclusive health facility, equipped with specialist neurological equipment allowing anyone with a disability to train and improve their current level of physical and mental health. They now provide this specialised Bionic Rehabilitation service. There is no other equipment like

**Project name:** Purchase of Exoskeleton Rehabilitation Suit

**Date:** January 2018 - July 2018

**Local Action Group:** Donegal Local Development Committee

**Implementing Partner:** Donegal Local Development Company

**Type of Beneficiary:** Not-for-profit Organisation

**Priority & Focus Area:** Theme 2: Social Inclusion /Sub theme: Basic Services Targeted at Hard to Reach Communities

**Project Beneficiary Name/Organisation:** No Barriers Foundation

**Address:** 7 Tara Court, Letterkenny, Co. Donegal

**Further information:** [www.nobarriers.ie](http://www.nobarriers.ie)  
[www.facebook.com/The-No-Barriers-Foundation-1734652206857645](https://www.facebook.com/The-No-Barriers-Foundation-1734652206857645)



this being used in Ireland, in either a hospital or community setting, which is accessible to the public 5 days per week and comes fully staffed with trained physiotherapists. This Bionic Suit is one of only 300 suits worldwide and only one of three which is publically accessible in Ireland. The No Barriers Foundation provide the use of the Bionic Suit for a

1



very affordable €60 per session, in a rural setting. This service is only comparable to a private service run in the United Kingdom at a cost of between £9,000-€11,000 per week for this type of rehabilitation.



The Exoskeleton Sit to Stand. Image Courtesy of the No Barriers Foundation

**“The benefits of the suit are endless, physical and psychological, it’s a great feeling to be able to meet people face to face instead of looking up at them from my wheelchair”**

*Gerry McCabe-Exoskeleton User*



No Barriers Foundation signing the LEADER contract. Image courtesy of the No Barriers Foundation

The aim of the Suit being based in Donegal is to break down barriers to recovery, exercise and physical activity. Also, it aims to promote social inclusion by allowing those with an illness or disability, based in the North West of Ireland, to access an Exoskeleton Bionic Suit and continue to rehabilitate and exercise within their community once discharged from care. This allows individuals to continue to make significant health improvements and receive the care and help they need within their own rural locations, while simultaneously allowing family members to participate and help in their loved ones’ rehabilitation.

### Objectives

- Allow those within the North West of Ireland to access a Bionic Exoskeleton Suit and continue to rehabilitate/ exercise within their community once discharged from care
- Facilitate individuals to continue to make significant health improvements and receive the care and help they need within their rural locations, while simultaneously allowing family members to participate and help in their rehabilitation.

### Activities

The No Barriers Foundation formed a number of sub committees and a fundraising committee with the aim of raising 25% capital for the purchase of the Exoskeleton Bionic Suit. This also included a service provision committee to oversee the service roll out of the Exoskeleton Bionic Rehabilitation Suit including Physiotherapists, Occupational Therapists and a local General Practitioner. The Foundation fund raised 25% of the cost of the machine through local community fundraising. The LEADER grant was secured and the Rehabilitation suit was purchased.

To provide the service, a team of 4 Chartered Physiotherapists were trained by Ekso Bionics. This involved



Level 1 training conducted in January 2018 and Level 2 advanced training in July 2018. An administrative infrastructure was put in place to allow all aspects of the project to operate using a cloud based clinic management system. Local operation sites within the North West were agreed upon and were kindly donated to the foundation for free. A wheelchair accessible vehicle was also secured to ensure ease of transport for the Exoskeleton Rehabilitation Suit throughout the North West region of which the population is approximately 200,000 people. The Suit is now being used beyond Donegal county so the population catchment figure is set to increase.

A media campaign was also launched to raise awareness of the project and its availability to those who needed it. A GP referral scheme was agreed upon by the service provision committee, with input from the Donegal GP network, and a structured referral system and was launched in January 2019 allowing an effective referral network to operate.

To date 15 patients who contacted the Foundation directly are currently using the Exoskeleton through our Pilot scheme and to date 90,000 steps have been taken within our rural community by those wheelchair users. The use of the Bionic Suit now operates at pretty much full capacity, with 25 to 30 sessions per week depending on the type of appointment. The service has full time physiotherapy staff and is now financially self-sustainable, allowing for further re- investment in capital.

### Results

Since this project was started, the No Barrier Foundation has taken on 2 full time employees, with a 4 further 4 employees aiming to be subcontracted which will bring the total to 6. This project has facilitated job creation in an area where job creation is a key goal of local development.

**"As a physiotherapist robotic exoskeleton rehabilitation allows me to provide more intensive gait and balance training, and improved functional outcomes for patients or varying conditions compared to many standard conventional physiotherapy treatments"**

*Stephen Nally, Physiotherapist No Barriers Foundation*

The funding has had a massive impact on those with limited mobility / disability in Donegal. The Esko Suit ultimately allow persons with disabilities in hard to reach communities to access modern, innovative equipment which ultimately will change their lives, both mentally and physically.

While the Bionic Rehabilitation Suit has facilitated people to rehabilitate within their communities, it has also brought together a number of wheelchair users, in particular, to train and rehabilitate side by side. Thereby, this helped developed a community in itself which helps with issues of



Demonstrating the use of the Bionic Suit. Image courtesy of the No Barriers Foundation





with social inclusion and also issues of rural isolation, which is often prevalent in hard to reach communities.

**“Since using the Exoskeleton, I have found the muscles in my legs are getting stronger and the pain in back has been getting profoundly less and is much stronger also. Also, the main benefits of being upright and walking is extremely rewarding”**

*Anita Jackson- Exoskeleton User*



Demonstrating the use of the Bionic Suit. Image courtesy of the No Barriers Foundation

## Lessons

***Cooperation between different stakeholders crucial for funding success***

This project was brought about as a direct result of capacity building and cooperation between different stakeholders, most notably, between those within the community, healthcare professionals and DLDC. This allowed the project to become successful when knowledge and skills were pooled to seek out funding opportunities. This also allowed for an improved structure and greater delegation of duties when seeking funding. For example, the community were instrumental in participating and contributing significantly to the fundraising activities of the No Barriers Committee and the healthcare professionals were instrumental in the operation, training, awareness raising and working with patients on a daily basis who use the Bionic Suit. This project shows how building collaborative, strong and sustainable community partnerships is a key to funding success and in the operation of a well needed service, that couldn't otherwise be delivered.

## Funding

<b>Total project budget (i)+(ii)+(iii) =</b>	<b>€161,380.00</b>
<b>+ (i) Rural Development Programme support (a)+(b)</b>	€121,035.00
<b>+ (a) EAFRD (EU) contribution</b>	€76,009.98
<b>+ (b) National / Regional contribution</b>	€45,025.02
<b>+ (ii) Private / Own funds</b>	€40,345.00
<b>+ (iii) Other funding sources</b>	n/a

## Contact details

<b>Project beneficiary name</b>	No Barriers Foundation
<b>Contact person</b>	Johnny Loughery
<b>Email</b>	Johnnyloughrey2000@yahoo.co.uk
<b>Telephone</b>	07497111010
<b>Address of beneficiary or implementing body</b>	7 Tara Court, Letterkenny, Co. Donegal

