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PROJECT SPEC SHEET (EN)

PHYSIO@HOME | EXTENDING PHYSIOTHERAPY PROGRAMS TO PEOPLE'S HOME

Project n°: 17863

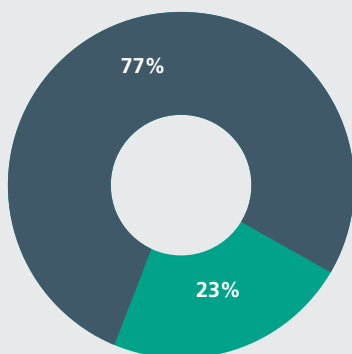
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Total eligible cost: 735.000€

EU Funding: 521.000€ (ERDF)

National/regional funding: N/A



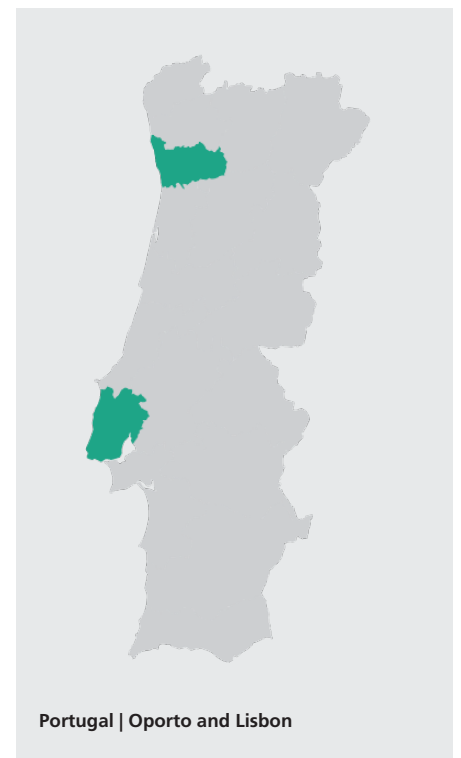
■ COPROMOTORS FUNDING
■ EU FUNDING

Project's overview

The efficacy of physical rehabilitation depends on the correct and systematic execution of specific exercises. However, the number of sessions is usually low as compared with the potential of recovery of the patient, due to time and cost limitations. To speed up rehabilitation, patients are prescribed exercises at home, but we lack tools that are able to monitor the movements of patients and offer them feedback, outside the clinic environment.

The goal of this project is to develop a solution that can be used at home, in complement to the sessions performed at the clinic, using smartphones or tablets and wearables containing electromyography (EMG) and inertial sensors, which track the execution of exercises and give biofeedback to the user. The solution should be modular, mobile, low-cost, and easy to use, with interactive games and biofeedback that help the exercise execution and promote adherence.

The smartphone or tablet will display intuitive games that will guide the user through the execution of the exercises and provide biofeedback. The performance metrics collected about the exercises





during the games will be stored and made available to the physiotherapist through a web portal, to inform their work at the clinic.

The gamification of rehabilitation exercises and their deployment in ubiquitous and

pervasive devices, such as smartphones or tablets in combination with wearables for movement monitoring, will enable a more engaging complement to physiotherapy sessions and ensure the correct execution of the exercises at home. This project also intends to improve the efficiency and

cost-efficacy of rehabilitation processes, by complementing the sessions at the clinic with the execution of some exercises at home.

Photos, videos and other dissemination materials

