Objective

The recent global burden of disease study showed that low back pain (LBP) is the most significant contributor to disability in Europe. Most patients seen in primary care with LBP have non-specific LBP (≥85%), i.e. pain that cannot reliably be attributed to a specific disease/pathology. LBP is the fourth most common diagnosis seen in primary care (after upper respiratory infection, hypertension, and coughing). Self-management in the form of physical activity and strength/stretching exercises...
constitutes the core component in the management of non-specific LBP; however, adherence to self-management challenging due to lack of feedback and reinforcement. This project aims to develop a decision support system - SELFBACK - that will be used by the patient him/herself to facilitate, improve and reinforce self-management of LBP. Specifically, SELFBACK will be designed to assist the patient in deciding and reinforcing the appropriate actions to manage own LBP after consulting a health care professional in primary care. The decision support will be conveyed to the patient via a smartphone app in the form of advice for self-management. The advice will be tailored to each patient based on the symptom state, symptom progression, the patients goal-setting, and a range of patient characteristics including information from a physical activity-detecting wristband worn by the patient. The second part of the project will evaluate the effectiveness of SELFBACK in a randomized controlled trial using pain-related disability as primary outcome. We envisage that patients who use SELFBACK will have 20% reduction in pain-related disability at 9 months follow-up compared to patients receiving treatment as usual. Process evaluation will be carried out as an integrated part of the trial to document the implementation and map the patients’ satisfaction with SELFBACK. A business plan with a targeted commercialisation strategy will be developed to transfer the SELFBACK technology into the market.

**Fields of science**

natural sciences  >  computer and information sciences  >  software
medical and health sciences  >  basic medicine  >  pathology
engineering and technology  >  electrical engineering, electronic engineering, information engineering  >  information engineering  >  telecommunications  >  mobile phones
natural sciences  >  computer and information sciences  >  artificial intelligence  >  machine learning

**Programme(s)**

H2020-EU.3.1. - SOCIETAL CHALLENGES - Health, demographic change and well-being
MAIN PROGRAMME
H2020-EU.3.1.4. - Active ageing and self-management of health

**Topic(s)**

PHC-28-2015 - Self management of health and disease and decision support systems based on predictive computer modelling used by the patient him or herself
Call for proposal

H2020-PHC-2014-2015

See other projects for this call

Sub call

H2020-PHC-2015-single-stage

Funding Scheme

RIA - Research and Innovation action

Coordinator

NORGES TEKNISK-NATURVITENSKAPELIGE UNIVERSITET NTNU

Net EU contribution

€ 1 904 282,96

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Region

Norge > Trøndelag > Trøndelag

Activity type

Higher or Secondary Education Establishments

Links

Contact the organisation
Website
Participation in EU R&I programmes
HORIZON collaboration network

Other funding

€ 0,00

Participants (7)
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Net EU contribution
€ 252 736,25

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Activity type
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HORIZON collaboration network

Other funding
€ 0,00

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Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

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Other funding
€ 0,00

DET NATIONALE FORSKNINGSCENTER FOR ARBEJDSMILJØ

Net EU contribution
€ 297 360,00

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Activity type
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Activity type
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HORIZON collaboration network
Other funding
€ 0,00

SYDDANSK UNIVERSITET
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€ 777 861,25
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€ 379,065,38

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Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)

Other funding
€ 0,00

Last update: 22 August 2022