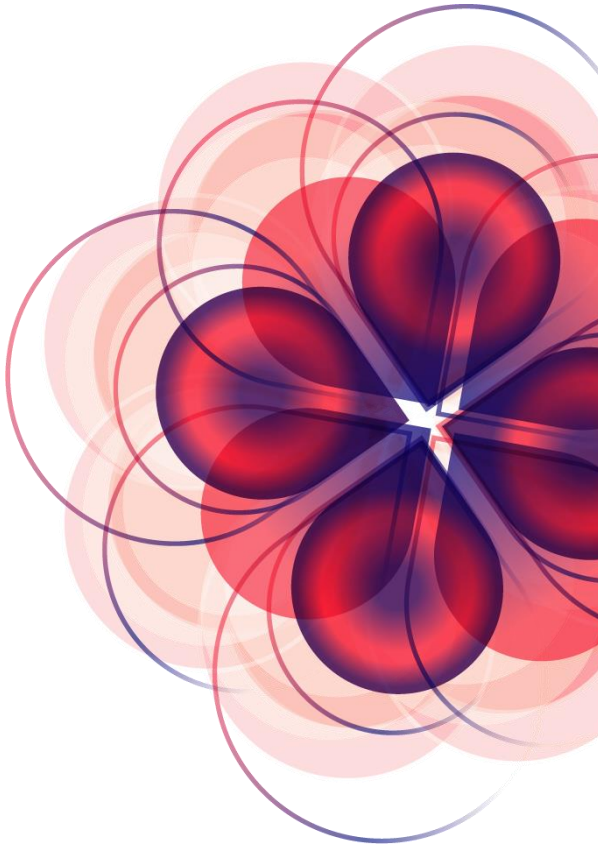
Interreg North-West Europe
European Regional Development Fund
EUROPEAN UNION

Innovative & inclusive NWE
22 JUNE 2021

Thematic sessions

Digitalisation

Session starts at 10:45 CET



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Digitalisation

Session agenda

- How digitalisation is currently addressed (2014-2020)
- Project presentations: BE-GOOD and VR4REHAB
- How digitalisation will be covered (2021-2027)

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Thematic sessions

Digitalisation

How the topic has been addressed in Interreg NWE 2014-2020

Elisabeth Wauschkuhn

Contact Point Germany

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Digitalisation

Digitalisation and Interreg NWE 2014-2020

EU 2020 Strategy

Smart, sustainable and inclusive growth

EU digital agenda 2020

Interreg NWE Cooperation Programm 2014-2020

Innovation ="something original, new, and important - in whatever field - that breaks into (or obtains a foothold in) a market or society"

a cross-cutting element

a tool

an enabler

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Digitalisation

How Digitalisation will be addressed in this session

How the NWE programme and its projects contribute to promoting and supporting digitalisation as a process which benefits European citizens, businesses, and the environment

The EU's digital strategy will benefit European citizens, businesses and the environment.

European citizens

by making sure technology improves their daily lives

Businesses

by empowering them to start, grow, innovate and compete on fair terms

Environment

by reaching climate neutrality with the help of digital technologies

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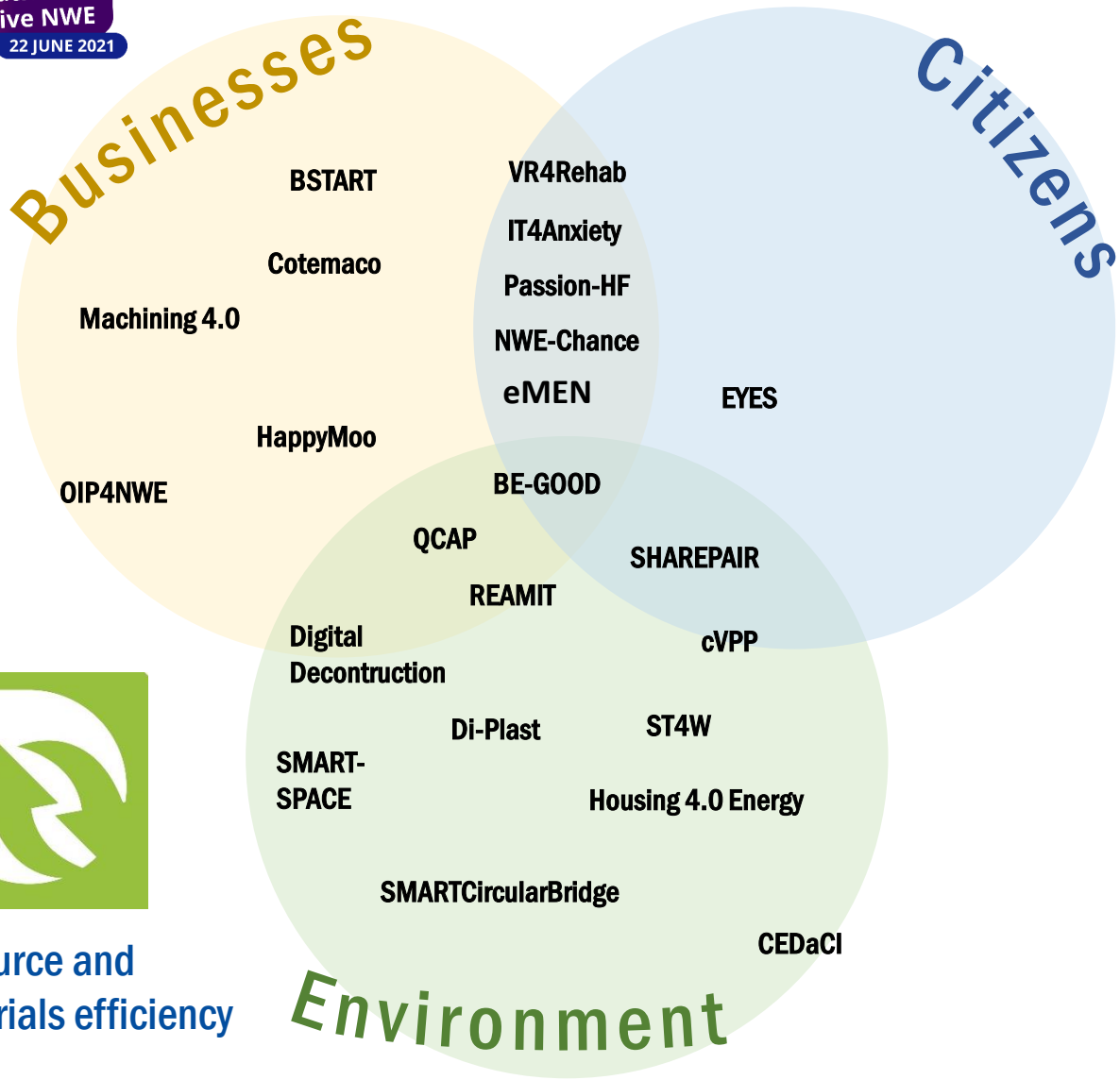
Digitalisation

Innovation

Low Carbon

Resource and materials efficiency



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Digitalisation

Project results and achievements

IT4Anxiety

Managing anxiety via innovative technologies for better mental health

10 innovative solutions

15 start-ups supported

45 jobs created

Training of **1000** future mental health professionals

2019-2023

Total Budget
€3.9M

BSTART

Blockchain-based applications for SME competitiveness

12 SMEs expected to use 1 of the 4 BSTART SME-specific blockchain solutions (TRL up to 6)

20+ new jobs created

€2M new turnover in 3 sectors (health, logistics, agrofood)

2019-2022

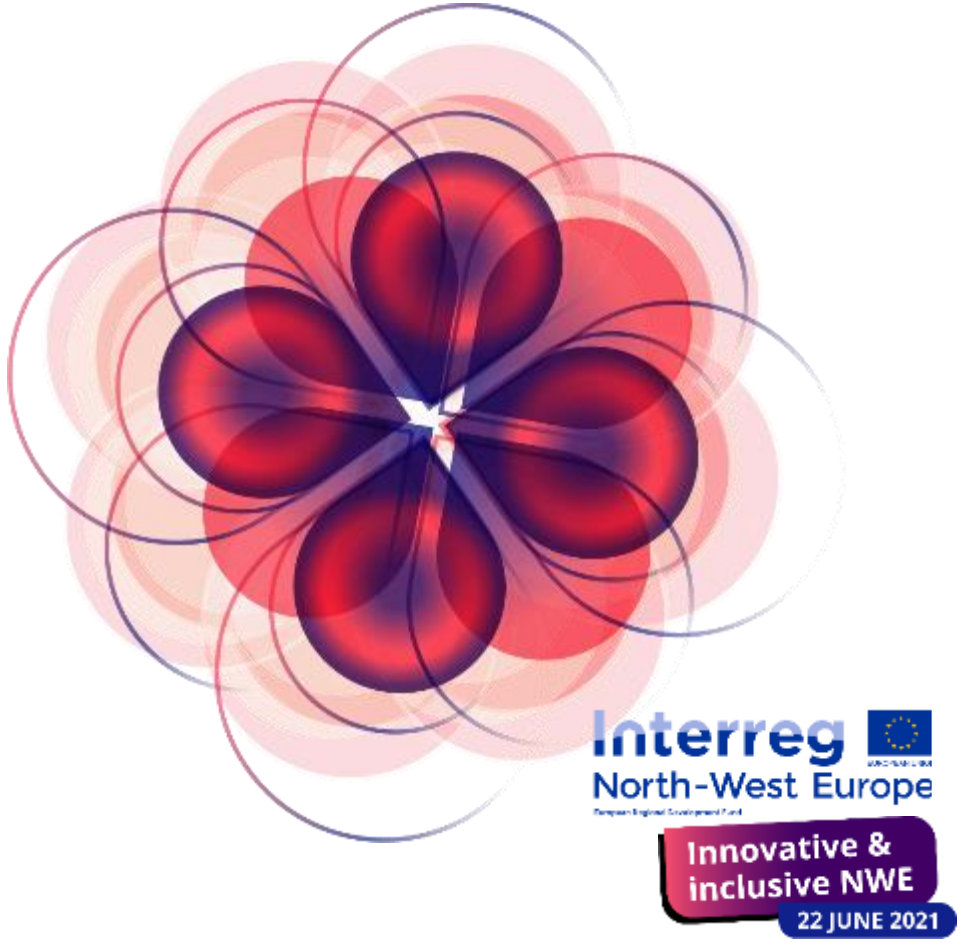
Total Budget
€4.9M

BE-GOOD : Building an Ecosystem to Generate Opportunities in Open Data

Natalie Oonk-Abrahams
or Lyke Bosma

Project webpage url : BEGOOD | Interreg NWE (nweurope.eu)

Breakout sessions



A video of the project (will be shown after sheet 4!

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BE-GOOD

European Regional Development Fund

THEMATIC PRIORITY:

INNOVATION

BE-GOOD is a pioneering project aiming to unlock, re-use and extract value from Public Sector Information (PSI) to develop innovative data-driven services in the area of infrastructure and environment.

Total budget received from Interreg North-West Europe (2014-2020):

€ 3.87 million of ERDF

Total project budget:
€ 6.45 million

www.nweurope.eu/begood

BE-GOOD

Interreg North-West Europe BE-GOOD

Building an Ecosystem to Generate Opportunities in Open Data

LEADPARTNER

Rijkswaterstaat
Ministry of Infrastructure and Water Management

PARTNERS

Loiret votre Département

ORLÉANS MÉTROPOLE

Glasgow CITY COUNCIL

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

LUXEMBOURG INSTITUTE OF SCIENCE AND TECHNOLOGY LIST

Flanders State of the Art

irCELine

Hoogheemraadschap van Delfland

www.nweurope.eu/begood

BE-GOOD

Building an Eco system to Generate Opportunities for Open Data

Interreg North-West Europe BE-GOOD

METHODOLOGY → DATA DRIVEN SOLUTIONS → IMPACT & UPTAKE

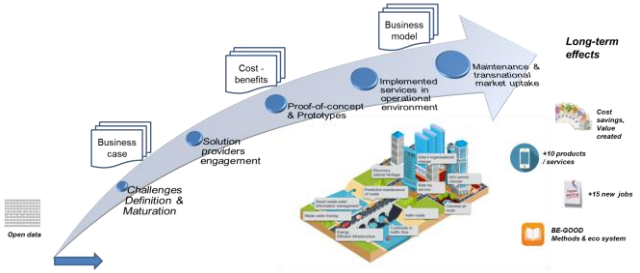
Real & urgent problems "to be solved": challenges

Innovative approach

Existing open data

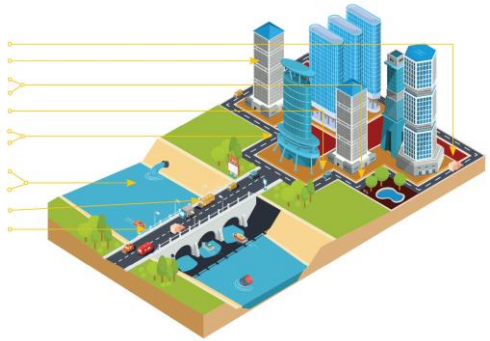
Contracted Small & Medium Enterprises

Transnational "by design"



11 new innovative products and services

- HGV Permit Checker
- Data 4 Organisational Change
- Discovery of Natural Heritage
- Cleanest Air Route
- Continuity of traffic flow
- Safer Roads
- Predictive Maintenance of Roads
- Smart Waste Water Information Management (SWWIM)
- Waste Water Tracing
- Rate My Transport Service
- Energy Efficient Infrastructures



Mobile App's | Data driven Algoritms | Citizen interaction App's | Dashboards | Prediction Models

- ✓ Implemented in real life environment (11)
- ✓ Transnational re-use (2+)
- ✓ New business models (11)
- ✓ Job creation (>30)
- ✓ Growing data awareness (++++)
- ✓ Stakeholders involved: 12 local, 17 regional, 23 national, 17 SME

The way forward…..

6 solutions ready for 2nd implementation

- New Geographical Area (2)
- New Target Group (2)
- New Economic Sector (2)

LIST | Comhairle Cathrach Bhaile Átha Cliath Dublin City Council | Delfland | Flanders State of the art | Glasgow | ORLÉANS MÉTROPOLE | Loiret

BE-GOOD Challenges

Interreg North-West Europe BE-GOOD

Infrastructure maintenance

- **Vital assets**: Energy sensors in infrastructure; optimization energy consumption, early warning infrastructure failure, optimization of maintenance proces & contracts
- **Predictive road maintenance**: Optimization of road pavement
- **Safer roads**: Predictive model for road accidents and safety

Smart living

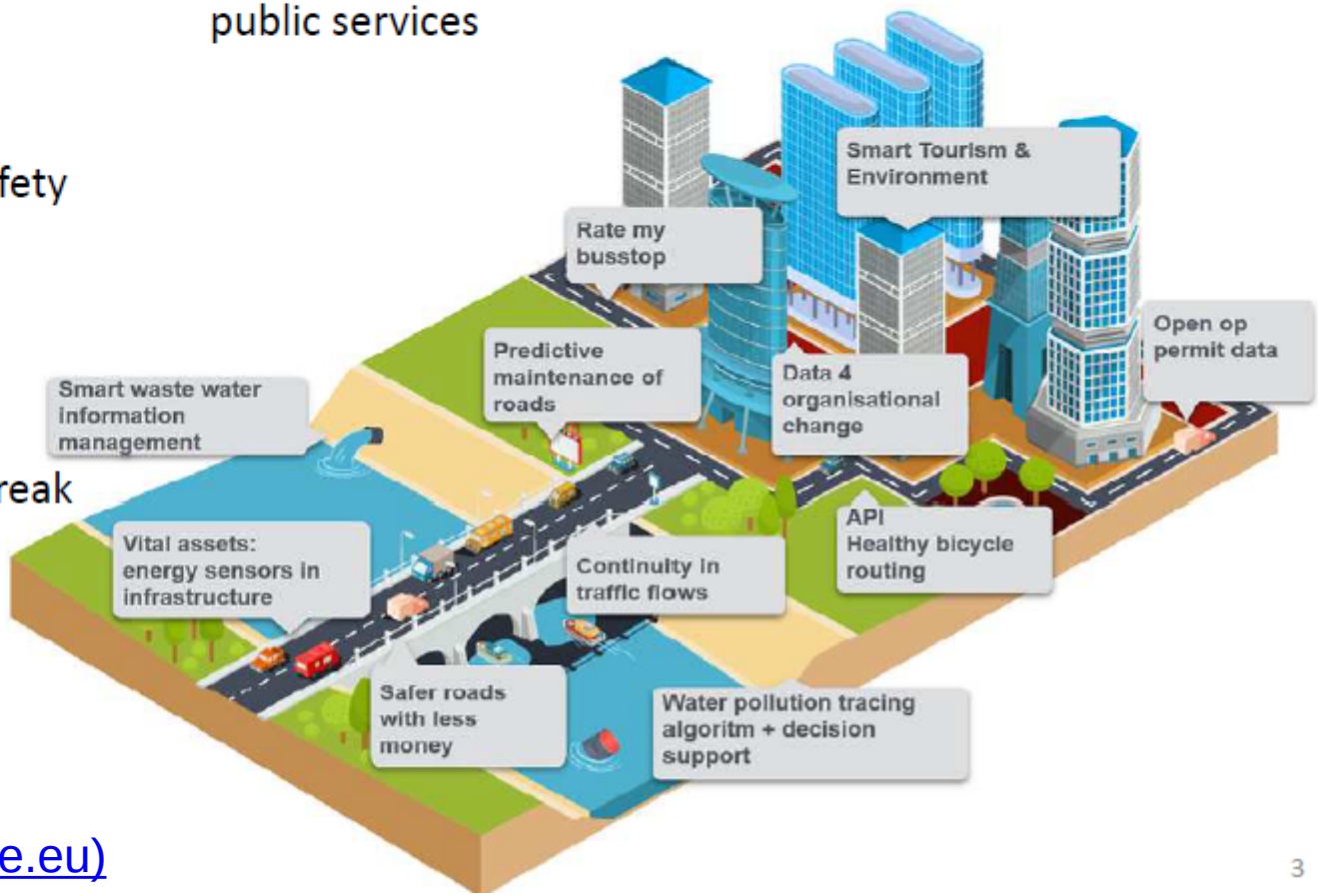
- **Smart tourism & environment**: Promote local spots
- **Healthiest route**: Healthy bicycle routing app
- **Connecting People and Place using Public Transport**: Break down barriers for conclusive growth

Waste water management

- **Waste water tracing**: Water pollution tracing algoritm
- **Smart waste water information management**

Transport & Mobility

- **Continuity in traffic flows**: real time crisis support
- **Open up data permit**: Enforcement of truck permits, with citizen feedback app
- **Rate my transportation**: Citizens feedback mechanism for public services



BEGOOD | Interreg NWE (nweurope.eu)

https://www.youtube.com/watch?v=c75gGPzqmec

Additional Roll out
new geographical area

- Cleanest air route
- Predictive roads maintenance

Additional Roll out
new target groups

- Continuity of traffic
- Natural heritage

Additional Roll-out
new economic sector

- Graph Tracing Engine
- Rate my service

Assessment Digital Transformation for Ecosystem Stimulation

Diagnostic tool for organizational change management: Digital Transformation guidance & support

Compilation of impacts and value creations of BE-GOOD and beyond

Impact and value created from BE-GOOD and beyond: a sustainable BE-GOOD ecosystem

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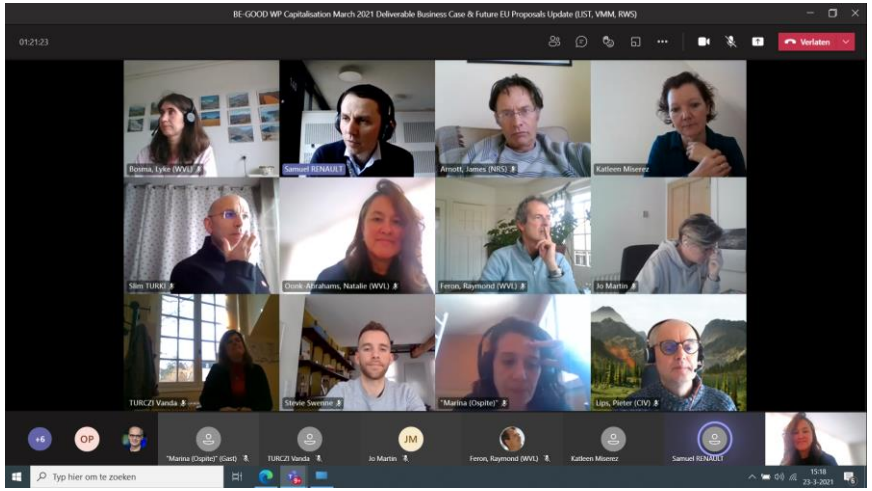
Digitalisation

Partnership

- How would you describe the main added-value of working together at NWE level?

Results

- What unforeseen benefits or challenges have emerged during the course of project implementation?



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Partnership:
Continue to work together in the future
Next EU Prgramming period

Digitalisation

BE-GOOD Next level #1 EU Theme: Digital Transformation

Interreg North-West Europe

BE PRO ACT (4 Public services)

Building an Ecosystem to improve Performance of Real time Operations and lifetime of infrastructure using Asset health CenTer(s)

WHY

Big Renovation issues, High Costs, New technology, Less resources.

- Technical degradation
- Function changes
- Increased risk at failure.

- Significant challenge ahead
- Convincing Business Case
- Complex Digital Transformation
- New contracts needed
- New Digital Expertise
- New Stakeholder alignment
- European co-design helps to scale up

WHAT

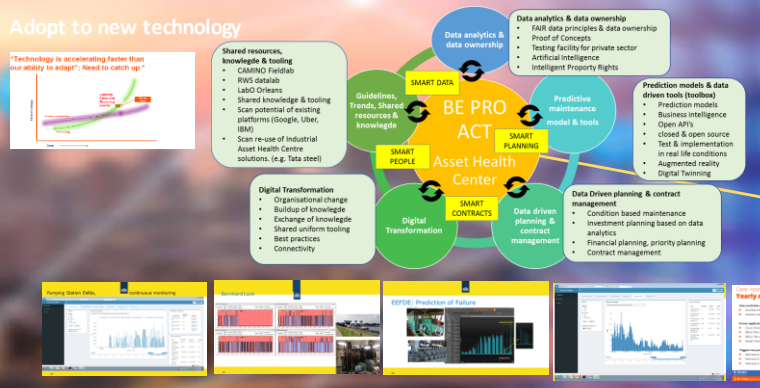
Road Maintenance

Sewage maintenance

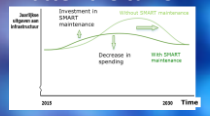
Locks & Sluices

Water treatment

Adopt to new technology



"Flatten the curve"



HOW

Programme	EU-Digital
Duration	4 years
Budget	5 Meuro
EU contribution	3 Meuro
Partners	See top banner

Background

Significant part of the infrastructure in the EU is 60-70 years. Digital technologies can upgrade maintenance and gives insight in the real time asset health status.

Predicting the degradation proces

Aim

The project stimulates and accelerates the use of digital technologies, follow trends in the market, cooperate and experiment with new technology, uniform and developen a toolkit for monitoring and collection data of assets that enables real time 24/7 and predictive

Approach

The ecosystem will be designed, built and maintained with partners, centered around an asset health analytics centre. Its open and modulair concept consists of flexible and re-usable components that enable real time asset health status monitoring and 100% predictive maintenance.

Partnership between public and private partners guarantees quick uptake in the market and benefits for all stakeholders involved.

Results

Implementation of Smart maintenance in different types of infrastructure

EU co-creation of asset health centres with guidelines, sensor standarisation, cyber security, data analytics toolkit, prediction models, lessons learned for new contracts, stakeholder alignment and adaptation to new technology.

Impact

- Preventing failure of critical infrastructure
- Just in time renovation and replacement.
- 10% cost saving for maintenance and large renovation of infrastructure.
- Flattening the "investment & capacity" curve for replacing over aged infrastructure
- Accelerating the Digital Transformation in EU by harnessing the power of Asset Health Centres.

FIVE FOCUS AREAS UNDER DIGITAL EUROPE PROGRAMME:

Digital transformation in EU

Real time asset health status and 100% predictive maintenance.

BE-GOOD : Building an Ecosystem to Generate Opportunities in

Breakout sessions

Project webpage url : [BEGOOD | Interreg NWE (nweurope.eu)]

Close & Thank-you & please join the Breakout sessions

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Lyke Bosma Lyke.Bosma@rws.nl

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VR4REHAB

June 22th, 2021
The Future of XR

Remco Hoogendijk
Sint Maartenskliniek

Interreg
North-West Europe
VR4REHAB
EUROPEAN UNION

Interreg NWE project (2017-2023)

Why?

VR and AR can help optimizing **rehabilitation** protocols, accelerating patients' recovery, promoting treatment adherence and easing reintegration into daily life.

VR4REHAB offers a solution for better and personalized healthcare, through the co-creation of Virtual Reality-based rehabilitation tools

The current extra work package offers an extension in terms of region (+Ireland and Belgium) and subject (Long Covid-19 patients)

Our partners

- Sint Maartenskliniek (the Netherlands)
- European Association of Virtual Reality and Augmented Reality (EUROVR) (Belgium)
- St. Mauritius Therapieklinik (Germany)
- Teesside University (UK)
- Royal Free London NHS Trust (UK)
- University of Lille (France)
- University College Cork (Ireland)
- In4Care (Belgium)

Fields of interest

Interreg North-West Europe VR4REHAB

- Cognition
- Therapy Adherence
- Pain Management
- Upper limb
- Lower limb
- Covid-19

Structure

1. Hackathons
2. Game Jams
3. Challenges
4. Open Innovation Network

2017-2018
5 Hackathons

To select the most brilliant ideas for rehabilitation with VR & AR technologies

2018-2019
5 Game Jams

To develop the ideas into workable demos

2019-2021
>5 Challenges

To tranform the demos into applications to be introduced into the market

VR 4 REHAB
SHARE FOR FUTURE CARE

HANDS AROUND THE WORLD

Applied for: Upper limb

Aiming to develop a chield-friendly rehabilitaion training possibility, which can be practiced at home.

MOVE VREE

Applied for: Lower limb

A VR game that therapists and patients can use to retrain motor control and change pain perception, with two underlying principles : enhancing movement and impplicit reward.

TRUNKY XL

Applied for: Therapy adherence

Being independent is the most important goal in rehabilitation. VR rehabilitation with movement sensors on the trunk turns it into a controller to play a VR game while training.

VR TRAVELLER

Applied for: Pain

VR training program for improving cognitive deficits of neurological patients. Specifically designed to train attentional functions in combination with executive functions (working memory and action planning).

VR4REHAB Teams

ABOUT US

VR4REHAB aims to stimulate the creation of VR based rehabilitation tools by bringing together relevant stakeholders and exchange knowledge. Working together in order to create the future.

Our goals are:

- Offering a platform to facilitate collaboration
- Linking ideas, people and business
- Providing and exchanging knowledge
- Initiating and showcasing new projects

VR 4 REHAB
SHARE FOR FUTURE CARE

CRYSTAL BALL

Applied for: Therapy adherence

Improving the short term memory. Patient trains the memory during the game play, with the possibility to have several options to get used to helpful tools. The therapist get the feedback off the imporvement after every game played via mail.

MOVING REALITY

Applied for: Lower limb

Two VR game applications to be used in gait rehabilitation: 1st implement dorsiflexion training, by useof a visual augmented reality; 2nd wearing a sensor on the foot, which provides feedback thanks to a vibration sensor.

ADHERENCE

Applied for: Therapy adherence

This project explores potential of commerically available virtual reality (VR) systems consoles and games for use in rehabilitation programmes to support therapy adherence

PAIN TOOLKIT

Applied for: Pain

A resource for people with persistent pain. It investigate how VR can add value to the self management material on the toolkit, and to create a stimulationg virtual environment, that can bring people together to develop their skills in pain management.

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VR4REHAB

2021
Last May

Innovation process Covid-19 WP

Interreg North-West Europe
VR4REHAB

1. Hackathon – May 2021

Virtual
5 days of generating ideas – Joint opening & pitches
End of last day pitches in front of jury
Resulting in 3 ideas per patient group = 9 ideas

2. Dev Jam – June 2021

Virtual or live
10 days in 3 months
End of last day pitches in front of jury
Resulting in 1 concept per patient group = 3 concepts

3. Challenge phase – September 2021

50k available for development new game applications COVID rehab
Feasibility testing on different patient groups
Feedback sessions with target groups
Final application games

Interreg
North-West Europe
VR4REHAB

24 JUNE 2021

Join us for the first (virtual) edition of the VR4REHAB conference – from ideas to reality! Providing you with the latest research on virtual rehabilitation, keynotes by experts in the field, companies showcase their latest products, and last but not least the VR4REHAB projects will be presented to you.

Merci!

VR 4 REHAB
SHARE FOR FUTURE CARE

www.vr4rehab.org
info@vr4rehab.org

Interreg
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VR4REHAB

Video Presentation • **VR4REHAB**

Video Presentation

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Thematic sessions

Digitalisation

Main features of the new Programme 2021-2027

Alexandre Colombani
Unit Coordinator – Interreg NWE

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Digitalisation in 2021-2027

Digital services and digitalization in the **ERDF draft regulation**

'ERDF should contribute to the development of an inclusive digital society' to :

- Deliver public services more effectively
- Enhance networks and services for local communities
- Address problems of disadvantaged areas

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Digital services and digitalisation in the **future NWE programme :**

- Digitalisation has a role to play in tackling **the joint challenges** identified for the NWE area

- No Specific Objective (SO) fully focused on digitalisation

- **BUT** agreement on that fact that digitalisation can be found in **projects of all priorities**

- **Digitalisation is a tool / enabler,** not a goal in itself

Thematic orientations 2021-2027

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Priority 1
Smart climate resilience for NWE territories

SO 2.7
Enhancing nature protection, biodiversity and reducing all forms of pollution

SO 2.4
Promoting climate change adaptation and disaster risk prevention resilience

Priority 2
Smart and just energy transition

SO 2.1
Promoting energy efficiency and reducing greenhouse gas emissions

SO 2.2
Promoting renewable energy

Priority 3
Transition towards a place-based circular economy

SO 2.6
Promoting the transition to a circular and resource efficient economy

Thematic orientations 2021-2027

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Priority 4
Fostering innovation capacity in NWE regions

SO 1.1
Developing and enhancing research and innovation capacities and the uptake of advanced technologies.

Priority 5
Transition to a socially inclusive sustainable and resilient society

SO 4.1
Enhancing the effectiveness and inclusiveness of labour markets and access to quality employment through developing social infrastructure and promoting social economy.

SO 4.4
Ensuring equal access to healthcare through developing infrastructure, including primary care, and promoting the transition from institutional to family and community-based care.

SO 4.5
Enhancing the role of culture and sustainable tourism in economic development, social inclusion and social innovation.

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Type of activities

- Elaboration and implementation of joint strategies or action plans
- Pilot actions for testing tools / solutions upscaled and replicated
- Capacity building and awareness raising activities
- Involvement of different stakeholders through a quadruple helix approach

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Timeline

- October 11-14 : Presentation of the 2021-2027 Programme at European Week of Regions and Cities
- End of 2021 / early 2022 : Interreg Programme submitted to the Commission
- Spring 2022 : First call for proposals
- Follow all the latest news on:

www.nweurope.eu/

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Digitalisation

Thank you for taking part in our event!

Browse through our latest publication to find out more about the impact of our projects.

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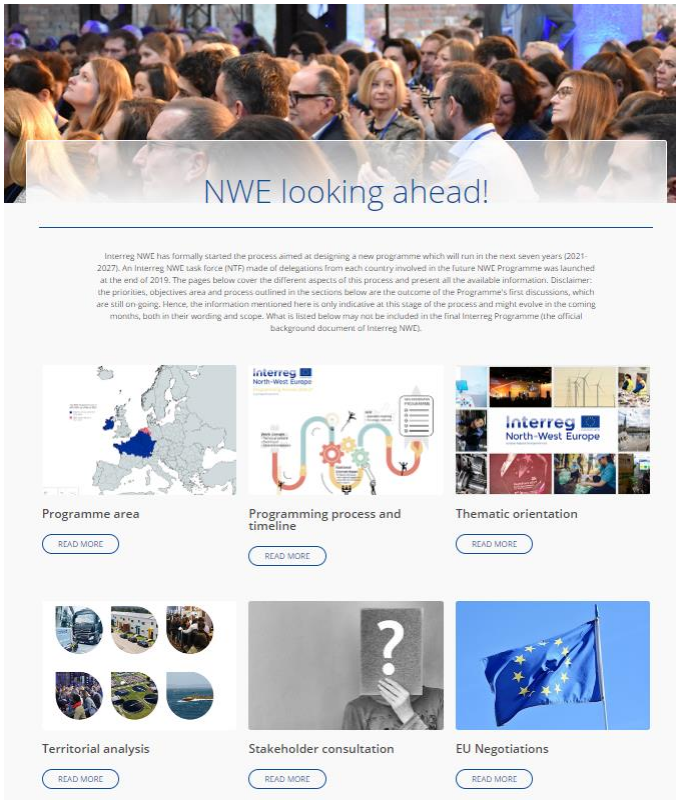
Thank you for taking part in our event!

Visit our Future Programme section for up-to-date content on Interreg NWE 2021-2027



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Digitalisation

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