



# NATUREACH

– Nature Reachable for All

Appendix to completions 23 September 2024

Interreg



Co-funded by  
the European Union

Aurora



# Client Pilot 3.1: Eskoo support unit and Eskoo care unit residents and staff

## Target groups:

- People with developmental disabilities who live in a 24-hour housing service in Eskoo and need demanding care and guidance in several areas of life.
- Social and healthcare workers who work three shifts in a housing service for clients with developmental disabilities who need demanding care and guidance.

## The aim for nature-based interventions:

- Increase residents' well-being, relaxation and quality of life by bringing nature experiences reachable for all.
- Helps employees' recovery during the working day and better coping at work



# Settings for interventions and measuring methods for effects (3.1)

## VR equipment and other supplies:

- VR dome (adjustable recliners, floor bags, wheelchair or nursing bed)
- Natural scents and touchable natural materials are designed for specific users of the dome.
- VR glasses

## Methods for clients:

- Heart Rate Variation (HRV via Firstbeat)
- Photovoice + interview
- Head and eye movement via VR glasses

- **Methods for staff:**
  - Oura- ring
  - Firstbeat
  - Stress-Energy survey
  - Interview
  - Head and eye movement via VR glasses
- **Participants at this time**
  - 13 clients/residents
  - 16 staff members
- **Timeline for data collection:**
  - 5/2024 – 6/2025



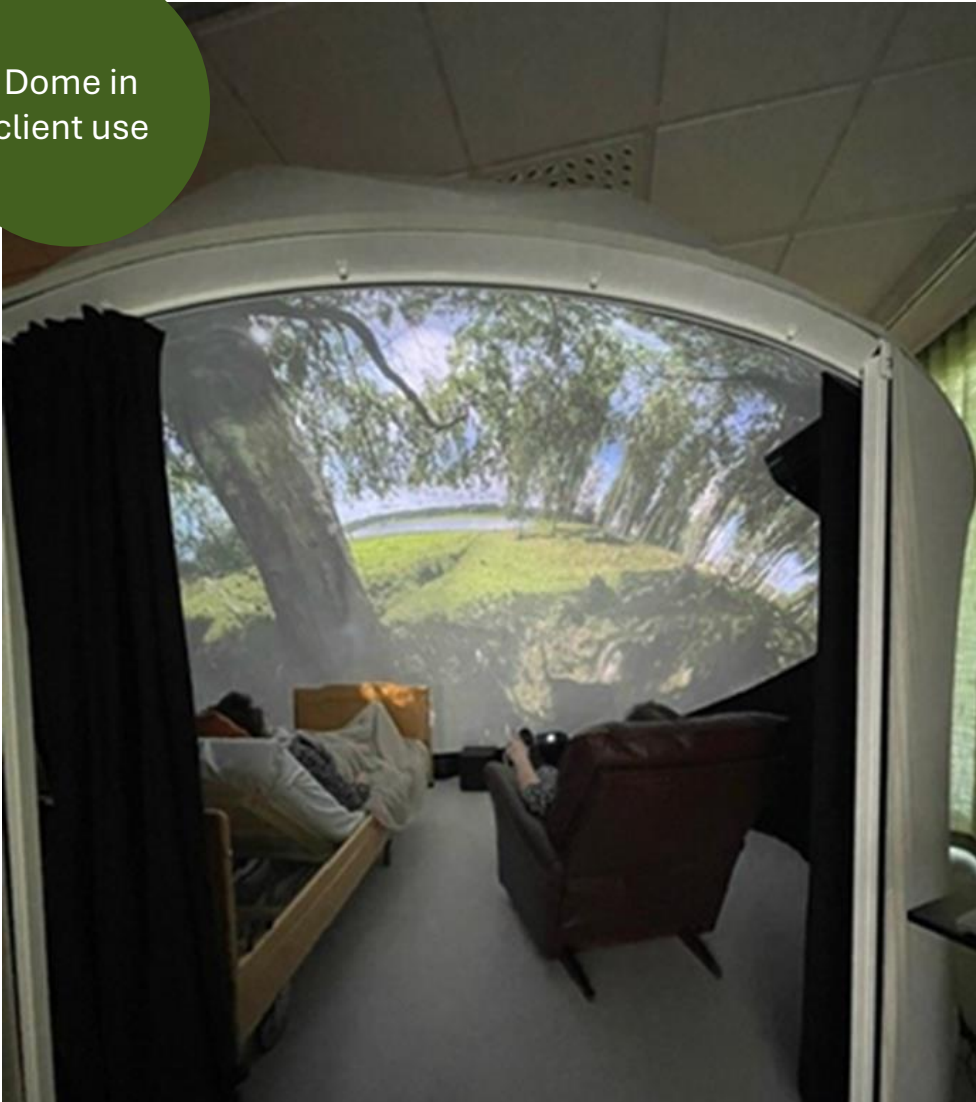




The very first  
Care-  
DOME 😊



Dome in  
client use



### 3.1. Experiences from clients so far...

- The residents have a really good time in the dome, and there have been no challenging situations in the residents' behavior or well-being while there or since, which would be caused by visiting the dome.
- Residents have given positive comments about visits to the dome.
- The residents have suggested going to the dome themselves, they want to go there.
- Data collection with Firstbeat devices is not possible for all residents right away, they need to get familiar to using the dome and devices little by little.



# Client Pilot 3.2 Patients in Eating Disorders Outpatient clinic in Vaasa central hospital (Wellbeing Services County of Ostrobothnia)

- Target groups:
  - Patients with eating disorder
  - Care personnel in Eating Disorders Outpatient clinic
- The aim for nature-based interventions:
  - To support care, reduce anxiety (for example at mealtimes) and increase the well-being of the patients with eating disorder, and to activate them to seek out nature even after the treatment period
  - To promote care personnel's well-being, recovery and stress-management during and after work shifts.



 **NATUREACH**

Survey App

 Suomi    Svenska    English

**Username**

Please enter the username you've received.

**Password**

Please enter the password you've received.

 Login

If you've forgotten your password or username, please contact your contact person.

# Settings for interventions and measuring methods for effects (3.1)

- **VR equipment and other supplies:**
  - VR glasses
  - adjustable recliner, grass-like carpet, a fan, special pillows
  - Natural scents and touchable natural materials must be planned carefully
- **Methods for patients:**
  - Head and eye movement via VR glasses
  - Client impact evaluation made by staff (documented in interviews for the staff/UVA)
- **Methods for staff:**
  - Stress-Energy survey
  - Interview
  - Head and eye movement via VR glasses
- **Participants**
  - Already over 20 staff members (goal was 10)
  - Will start with the patients during autumn -24 (goal 15)
- **Timeline for data collection:**
  - 6/2024 – 6/2025

VCH staff  
members  
in VR  
demo



### 3.2. Experiences and lessons learned so far from client and staff perspectives

- Care professionals have found the virtual environments produced in the project to be of very high quality
- They want to get truly familiar with the equipment and measuring methods before starting the interventions with their vulnerable clients
- Enquiries about the possibility of participating in the project have also been received from other units in the Service County



# Client Pilot 3.3 Patients in Palliative medicine, Umeå

- Target groups

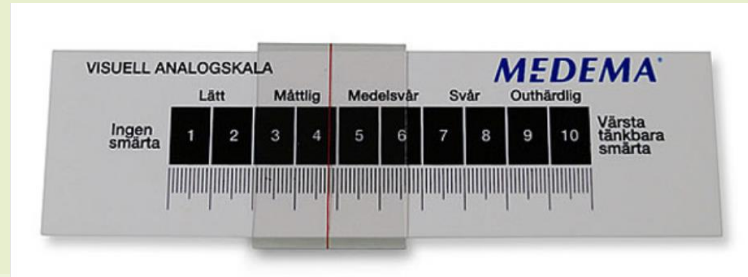
- Palliative patients who are treated at home
- Close relatives
- Staff at Palliative medicine

- The aim for nature-based interventions

- Investigate the possibility to use virtual nature experiences for palliative patients and thereby increasing well-being and alleviating symptoms of pain, breathlessness and anxiety
- Provide the opportunity for relaxation for close relatives
- Decrease stress at work and contribute to recovery of the staff



# Settings for interventions and measuring methods for effects (3.3)



- **VR equipment and other supplies**

- VR glasses

- **Methods for clients/patients**

- NRS – symptoms of pain, anxiety, nausea and breathlessness before and after VR session.
- Head and eye movements via VR-glasses
- Qualitative interviews

- **Methods for close relatives**

- Mood scale before and after VR session.

- **Methods for staff**

- Heart Rate Variability (via Firstbeat)
- Stress-Energy scale during the working day, before and after VR session.

- **Number of participants (goals)**

- 5-10 clients/patients
- 5-10 close relatives
- 10 staff members

- **Timeline for data collection:**

- May/2024 – June/2025





### 3.3 Experiences so far from patient and staff perspectives

- Three patients and two close relatives have participated so far
- Preliminary experiences reassuring
- Now preparing to start the intervention for staff
- Information about the project given 16-17 April at the RCC conference “sjukvårdsregionala cancerdagar” in Umeå, aroused a lot of interest



# Client Pilot 3.4: People with diabetes mellitus in Lifestyle support services Österåsen, Region Västernorrland

The aim for this client pilot is to use IRL- and VR-nature to improve lifestyle. To introduce VR as a method to bring the nature indoors as a tool to encourage the lifestyle changers and others to be more active and go out in the real nature. Interventions in real nature environments surround the care unit during the care period will be compared to virtual nature interventions after the care period by using VR-glasses at home.

**VR-equipment:** VR-glasses

**Methods for clients/patients:**

- Psychological measures: Mood survey, RAND - 36: Health and lifestyle in everyday life (36 questions), DES-SF-10: Diabetes empowerment scale (10 questions), PSS 14: Perceived stress scale; Feelings and thoughts last month (14 questions), interviews
- Physiological measures: Blood sugar levels, weight, need for diabetes-related drugs, blood pressure, HRV



VR  
group  
intervention  
in  
Österåsen

**Number of participants**

Currently 18 participants (goal 20)

**Timeline for data collection:**

March/2024 – June/2025

# Summary to date (3.4)

IRL  
group  
intervention  
in  
Österåsen



## Experiences from clients so far...

- The staff has received positive feedback from the patients.
- The NATUREACH-app has been working well and the participants have been answering surveys at home.
- A few participants have not used it as much at home as planned, but that's due to other issues than the equipment or materials.
- The first 6 months test group will return soon to the interviews.



# Client Pilot 3.5: Senior care services at Särkivaaragården in Övertorneå Municipality



- Särkivaaragården is the largest of the four elderly care units, placed in the centre of Övertorneå with nature view from windows and nearby outside visit possibilities in the garden. Different professions such as assistant nurses and registered nurses along with staff with responsibility for digitalisation, support the residents at the care home. In addition, the unit has close co-operation with the healthcare centre which is located in the same building, providing close proximity to medical care by doctors.
- **Aim for clients** is to promote health and well-being, healthy homes and sustainable living, as well as to combat loneliness of older adults living in elderly care units.
- **Aim to care staff** is to explore virtual nature experiences to promote health and well-being.



# Client Pilot 3.5: Senior care services in Övertorneå Municipality

VR demo in Särkivaara-gården



- **Equipment:**
  - VR-glasses - flexible and possible to use in the elderly persons' room.
  - A screen in a studio room between the units, easily accessible, aimed for virtual nature exposure for the residents.
- IRL visits in nearby nature and/or nature view through window.
- **Methods used in measuring the effects:** Observations, reflective dialogues, individual interviews, physiological measurements.
- **Number of participants:** goal 15-20
- **Timeline for data collection:** January/2024 – June/2025

# Summary to date (3.5)

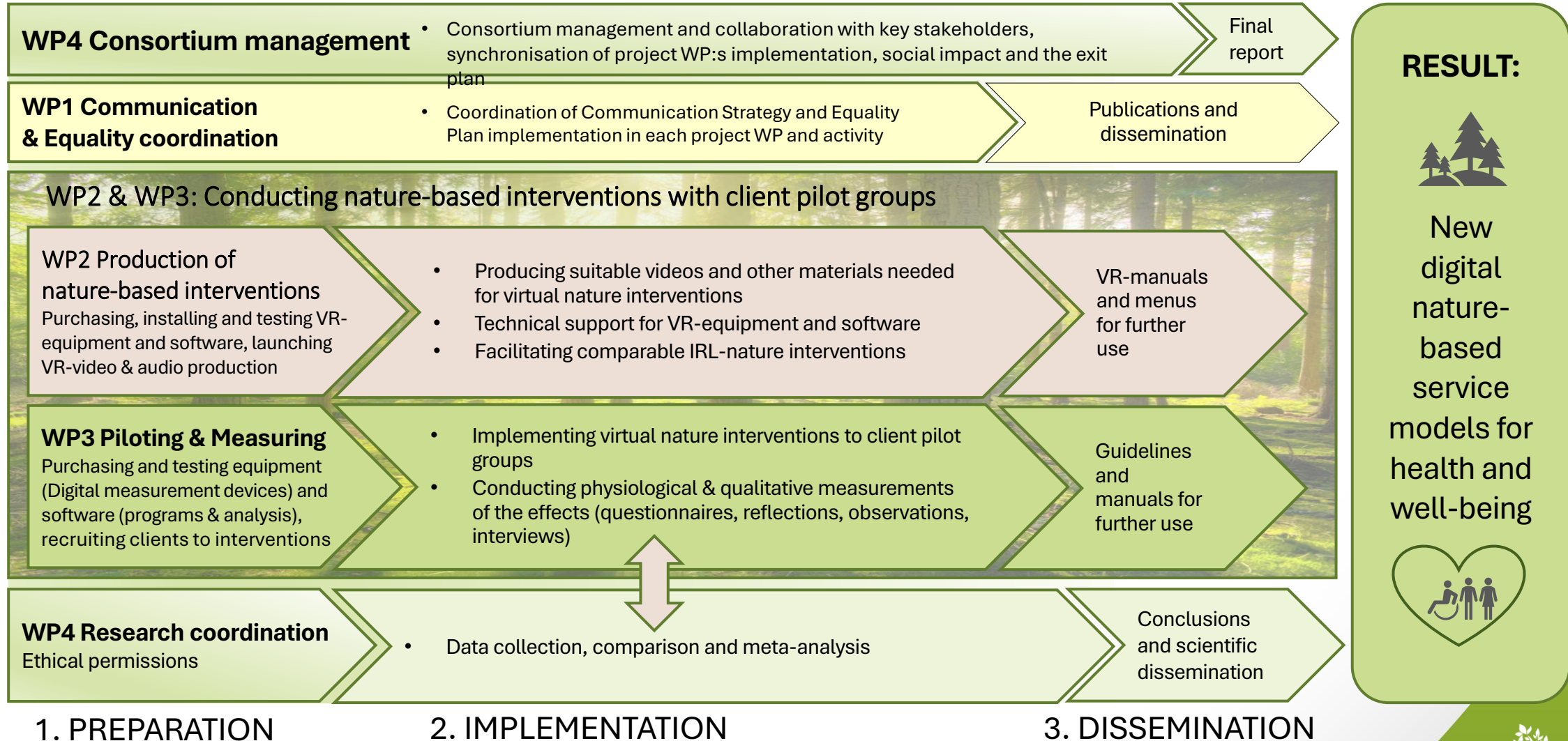


## Experiences from clients and staff so far...

- Overall impression has been positive.
- Especially good for older persons, but the staff also think virtual nature is well-suited for their own use.
- However, some older people were first afraid to test the devices. One older woman tested the VR glasses. She really liked it and was surprised that someone her age was able to use them. The results were really exciting, and they will continue with VR.
- The staff thought that not moving videos were better for older users.
- Something learned so far is that we don't need to be afraid of testing VR with older persons.



# NATUREACH Process flow chart 2023-2025







More details from client groups and interventions  
<https://www.slu.se/en/natureach>