

Our aim

This project will create four SENSE-GARDENS in Norway, Belgium, Romania, and Portugal, where images, videos, music and scents will be used to stimulate the different senses for older people living with dementia.

Through the personalization of stimuli, the SENSE-GARDEN will stimulate memory, communication, and physical activity for the person with dementia. The aim of SENSE-GARDEN is to reconnect the individual with their sense of self, improving the quality of life for the person with dementia and also for their loved ones.

The Project Team

The SENSE-GARDEN project consists of a high-quality team of researchers, healthcare professionals, organisation managers and technology developers across Norway, Belgium, Romania and Portugal.

SENSE-GARDEN Consortium



Sense Garden

Creating individualized, immersive spaces for people living with dementia

Contact us

If you would like to know more about the project or get involved in our activities, please do not hesitate to contact us. We are eager to share research, resources, and ideas. Thank you! Please feel free to ask questions by emailing info@SENSE-GARDEN.eu

For all the latest SENSE-GARDEN updates, follow us on Facebook and Twitter:

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www.sensegarden.eu

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*Emotions
reconnect us*



One Room. Seven Elements. Endless possibilities.

SENSE-GARDEN combines seven components to create one immersive, adaptable experience for the person with dementia. A room is filled with familiar music, videos, and photos from known places and with known people. Pictures and videos are combined with music, sounds, and smell to provide an immersive space automatically adjusted to each visitor.

This adaptation of the space will be achieved by working closely together with family members to create individual profiles for the user with dementia. This profile will contain autobiographical media such as family photographs and films.

This experience will stimulate memories from the person's past, helping them to reconnect with their identity, and with other people.

Coordination team

SENSE-GARDEN Coordinator: Professor J. Artur Serrano

Test Site Coordinators: Sigrid Mæland (Norway), Piet Borman and Marleen Custers (Belgium), Rita Valadas and Cristina Vaz de Almeida (Portugal), Mihai Berteanu and Ileana Ciobanu (Romania)

Business Coordinator: Ronny Broekx, CEO, ePoint (Belgium)

Technical Coordinator: Iulian Angleache, Compexin (Romania)

Administrative Coordinator: Siri Bjørvig, University Hospital of North Norway (Norway)

Scientific Studies

Four test sites, one in each country of the project, will run scientific studies planned for June 2019. Prototypes of the SENSE-GARDEN are currently being tested by our expert team of researchers.

Principal Investigator: Professor J. Artur Serrano Leader of the Welfare Technology group at the Norwegian University of Science and Technology

Clinical Study Coordinator: Professor, MD, Mihai Berteanu "Carol Davila" University of Medicine, "Elias" University Hospital in Bucharest, Romania

External Scientific Advisor: Professor Walter Maetzler Head of the Neurological Department, University Hospital Kiel, Germany

Researchers

Norwegian University of Science and Technology: Gemma Goodall, Jon Sørsgaard, Kristin Taraldsen

"Elias" University Hospital in Bucharest, Romania: Ileana Ciobanu, Andreea Marin, Alina Iliescu, Mihai Zamfir, Rozeta Draghici

Institute of Social and Political Sciences, University of Lisbon, Portugal: Cristina Vaz de Almeida

Publications

Using Adaptive Immersive Environments to Stimulate Emotional Expression and Connection in Dementia Care: Insights from User Perspectives Towards SENSE-GARDEN Gemma Goodall et al., Fourth International Conference on Human and Social Analytics (HUSO), Italy, June 2018

Reconnecting with Past and Present. Personalizing sensory stimulated reminiscence through immersive technologies—developing a multidisciplinary perspective on the SENSE-GARDEN room. Jon Sørsgaard, Mihai Berteanu, J. Artur Serrano, ICT for Ageing Well, Portugal, March 2018

The Emotional response as Outcome in Reminiscence Therapy . Andreea Marin, Ileana Ciobanu, J. Artur Serrano, Mihai Berteanu. ELAPSYT1 First International Conference on Emotions, Language Processing and Psycholinguistic Testing, Romania, October 2017

Universal Design in an Interdisciplinary Approach, the Importance of Accessibility in Elderly Settings. Mihaela Zamfir-Grigorescu, Mihai Zamfir, Andreea Marin, Ileana Ciobanu, Artur Serrano, Mihai Berteanu, 40th National Congress of Rehabilitation Medicine with International Participation, Romania, September 2017

Inside SENSE-GARDEN

Reality Wall

Whether it is a forest, a beach, or a village— the Reality Wall can immerse the individual in an environment of their preference through large panoramic display. This unique experience is complemented by the use of sound and smell, connecting the individual to a reality that they can associate with.

Memory Lane

A medium-sized touchscreen is dedicated to showing personal media such as photos and videos of family, friends, or hobbies. The use of haptic feedback will be investigated to allow the individual to interact with this personal media, empowering them to explore their life story and reconnect with their sense of self-identity.

Sound surrounds me

A surround sound system is used to provide an immersive, sonic experience based on the person's life story. The individual is surrounded by their favourite music, or perhaps songs which hold personally significant meaning to them.

Life road

The user will cycle or use hand pedals in front of a film projection to travel along a familiar place. For example, this could be a road from the individual's hometown, or a little path in a park.

Move to Improve

Balance is connected with all of the other senses, and therefore it is important to promote healthy balance in people with dementia. This will be a simple game where fun and activity are combined to improve balance, contributing to a higher quality of life.

Scent to Memories

The room is filled with familiar scents, such as spices, flowers or the forest. For example, a forest shown on the reality wall can be paired with the scent of pine trees to enhance the sensation of being outside in the woods.

Films of My Life

The user will be able to reminisce over their past with excerpts from classic films or homemade videos of friends and family.

SENSE-GARDEN Experience

The SENSE-GARDEN is designed for three types of users:

- Person with dementia, who is considered our primary user
- Informal caregivers: a family member or close friend of the person with dementia
- Formal caregivers: a healthcare professional with experience in dementia care

A person with dementia visits the SENSE-GARDEN with a formal or informal caregiver, and together they interact with the various stimuli and activities in the room.

