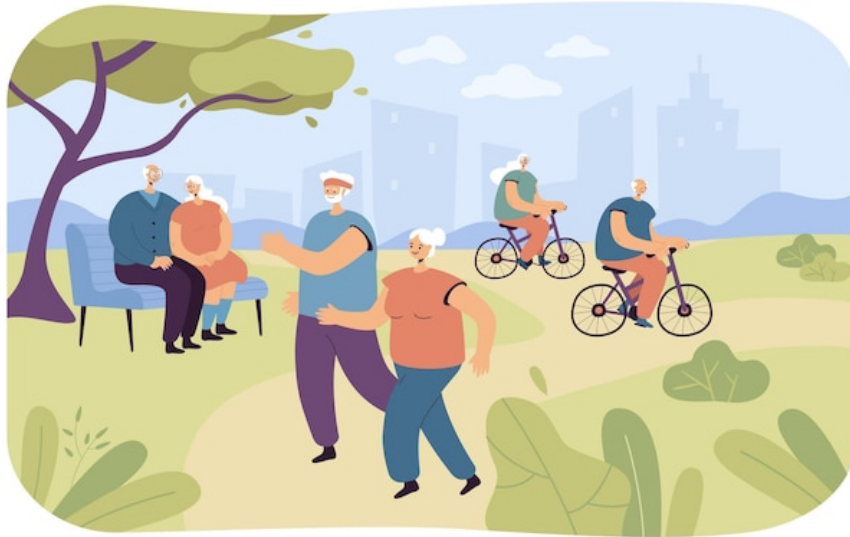


# WORK PACKAGE N°2 BEST PRACTICES AND CO-DESIGN

Task 2.2: Co-design

## INTERNATIONAL REPORT ON CO-CREATION SESSIONS



**FLOWER PROJECT. Fostering nature related  
competences with older people**

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## 1. Introduction

This report gathers the information of all consortium partners on implemented co-creation workshops held in each country. A co-creation session is a collaborative and interactive workshop where individuals from different backgrounds, expertise, and perspectives come together to jointly create, design, or develop a specific product, service, solution, or idea. The purpose of co-creation workshops was to share best practices in the field of nature-related activities and get more in-depth discussion on the best practices and online material that will be created in WP3, by frail older people and informal carers. Each partner of the project organized at least 3 co-creation workshops with 6 – 8 participants, which were frail older people and informal carers.

In task 2.1. of Work Package 2 a report of 24 best practices on educating green skills and nature-related competencies for increased sustainability and nature conservation was prepared. Each consortium partner presented at least 6 best practices. Each of the partners has compiled the data and feedback from the co-creation session into a report, this international report brings together the data from all the partners.

## 2. Best practices presented in participants countries

Table 1 Best practices presented in Spain

No.	Best practice	Main category	Sub-category
1	Case 6. Take care of yourself / take care of me. Health community activities (aimed at engaging the entire population in improving their wellbeing (Teruel).	GROUP 1. SOCIAL INCLUSION , HEALTH, AND WELLBEING	1.2 STORYTELLING AND ENVIRONMENTAL MEMORY WORKSHOP
2	Case 1. Con-tatto (contact) project. Italy	GROUP 1. SOCIAL INCLUSION , HEALTH, AND WELLBEING GROUP 2. ENVIOREMENTAL EDUCATION AND NATURE CONSERVATION	1.2 STORYTELLING AND ENVIRONMENTAL MEMORY WORKSHOP 2.1 VISITS TO NATURAL AREAS
3	Case 2. IVN Natuur doet je goed training “Nature Serves You Well” training. Training	GROUP 2. ENVIOREMENTAL EDUCATION AND NATURE CONSERVATION	2.2 RESEARCHING TO ACT
4	Case 5. For a better tomorrow with dementia	GROUP 2. ENVIOREMENTAL EDUCATION AND NATURE CONSERVATION	2.2 RESEARCHING TO ACT
5	Case 7. NK Tegelwippen Nat. Champ. Tile Tossing – Campaign to turn neighbourhoods greener by inviting citizens to flip tiles and make them into little gardens.	GROUP 3. ENGAGEMENT AND COOPERATION	3.1 DESIGNING AN ENVIRONMENTAL PROGRAM 3.2 DESIGN AN INFORMATION CAMPAIGN
6	Case 1: Plan be: active senior volunteers.	GROUP 3. ENGAGEMENT AND COOPERATION	3.3 SOCIAL INTEGRATION - ENVIRONMENTAL VOLUNTEERING

Table 2 Best practices presented in Netherlands (Stichting Gouden Dagen and IVN)

No.	Best practice	Main category	Sub-category
1	Case 3. IVN Natuurkoffer Nature suitcase. A suitcase full of natural elements, such	GROUP 1. SOCIAL INCLUSION , HEALTH, AND WELLBEING	1.1 NATURE BASED THERAPIES 1.2 STORYTELLING AND

	as wool, honey, flowers with a handbook with 17 activities.		ENVIRONMENTAL MEMORY WORKSHOP
2	Case 2. Parking day. Intergenerational activity in the European mobility week (Madrid).	GROUP 1. SOCIAL INCLUSION , HEALTH, AND WELLBEING GROUP 2. ENVIRONMENTAL EDUCATION AND NATURE CONSERVATION GROUP 3. ENGAGEMENT AND COOPERATION	1.2 STORYTELLING AND ENVIRONMENTAL MEMORY WORKSHOP 2.3 WORKSHOPS ON SUSTAINABILITY AND WASTE 3.3 SOCIAL INTEGRATION - ENVIRONMENTAL VOLUNTEERING
3	Case 1. IVN #2UurNatuurChallenge #2HoursOfNature challenge. Month long challenge to enhance connection with nature for at least 2 hours a week.	GROUP 2. ENVIRONMENTAL EDUCATION AND NATURE CONSERVATION	2.1 VISITS TO NATURAL AREAS
4	Case 4. Gezond natuur wandelen – Healthy nature walks guided by a volunteer guide at fixed locations at fixed times for everybody who would like to join.	GROUP 2. ENVIRONMENTAL EDUCATION AND NATURE CONSERVATION	2.1 VISITS TO NATURAL AREAS
5	Case 2. IVN Natuur doet je goed training “Nature Serves You Well” training. Training	GROUP 2. ENVIRONMENTAL EDUCATION AND NATURE CONSERVATION	2.2 RESEARCHING TO ACT
6	Case 5. Tuinkaart Garden Map – Mapping out the different elements in the garden to be used by older residents and (in)formal caregivers.	GROUP 2. ENVIRONMENTAL EDUCATION AND NATURE CONSERVATION	2.2 RESEARCHING TO ACT
7	Case 7. NK Tegelwippen Nat. Champ. Tile Tossing – Campaign to turn neighbourhoods greener by inviting citizens to flip tiles and make them into little gardens.	GROUP 3. ENGAGEMENT AND COOPERATION	3.1 DESIGNING AN ENVIRONMENTAL PROGRAM 3.2 DESIGN AN INFORMATION CAMPAIGN
8	Case 6. Sociaal Tuinieren Social Gardening - Social Gardening involves volunteers who sustainably refurbish and maintain neglected gardens of vulnerable people.	GROUP 3. ENGAGEMENT AND COOPERATION	3.3 SOCIAL INTEGRATION - ENVIRONMENTAL VOLUNTEERING
9	Case 1: Plan be: active senior volunteers.	GROUP 3. ENGAGEMENT AND COOPERATION	3.3 SOCIAL INTEGRATION - ENVIRONMENTAL VOLUNTEERING

Table 3 Best practices presented in Italy

No.	Best practice	Main category	Sub-category
1	Case 4. Aromatherapy and herbs for the health and vitality of the home environment	GROUP 1. SOCIAL INCLUSION , HEALTH, AND WELLBEING	1.1 NATURE BASED THERAPIES
2	Case 3. IVN Natuurkoffer Nature suitcase. A suitcase full of natural elements, such as wool, honey, flowers with a handbook with 17 activities.	GROUP 1. SOCIAL INCLUSION , HEALTH, AND WELLBEING	1.1 NATURE BASED THERAPIES 1.2 STORYTELLING AND ENVIRONMENTAL MEMORY WORKSHOP

3	Case 1. Con-tatto (contact) project. Italy	GROUP 1. SOCIAL INCLUSION , HEALTH, AND WELLBEING GROUP 2. ENVIOREMENTAL EDUCATION AND NATURE CONSERVATION	1.2 STORYTELLING AND ENVIRONMENTAL MEMORY WORKSHOP 2.1 VISITS TO NATURAL AREAS
4	Case 2. Parking day. Intergenerational activity in the European mobility week (Madrid).	GROUP 1. SOCIAL INCLUSION , HEALTH, AND WELLBEING GROUP 2. ENVIOREMENTAL EDUCATION AND NATURE CONSERVATION GROUP 3. ENGAGEMENT AND COOPERATION	1.2 STORYTELLING AND ENVIRONMENTAL MEMORY WORKSHOP 2.3 WORKSHOPS ON SUSTAINABILITY AND WASTE 3.3 SOCIAL INTEGRATION - ENVIRONMENTAL VOLUNTEERING
5	Case 4. Libera Universita' del Bosco (free university of the woods). Italy	GROUP 3. ENGAGEMENT AND COOPERATION	3.1 DESIGNING AN ENVIRONMENTAL PROGRAM
6	Case 2. Urban gardening with grandma and grandpa	GROUP 3. ENGAGEMENT AND COOPERATION	3.1 DESIGNING AN ENVIRONMENTAL PROGRAM

Table 4 Best practices presented in Slovenia (Development Centre of the Heart of Slovenia and Spominčica Alzheimer Slovenia)

No.	Best practice	Main category	Sub-category
1	Case 3. Alzheimer garden. Italy	GROUP 1. SOCIAL INCLUSION , HEALTH, AND WELLBEING	1.1 NATURE BASED THERAPIES
2	Case 3. IVN Natuurkoffer Nature suitcase. A suitcase full of natural elements, such as wool, honey, flowers with a handbook with 17 activities.	GROUP 1. SOCIAL INCLUSION , HEALTH, AND WELLBEING	1.1 NATURE BASED THERAPIES 1.2 STORYTELLING AND ENVIRONMENTAL MEMORY WORKSHOP
3	Case 5. Animada-mente. Smiling to life. Sociocultural animation project for older people (Toledo, Castilla-la Mancha).	GROUP 1. SOCIAL INCLUSION , HEALTH, AND WELLBEING GROUP 3. ENGAGEMENT AND COOPERATION	1.1 NATURE BASED THERAPIES 3.2 DESIGN AN INFORMATION CAMPAIGN
4	Case 6. Take care of yourself / take care of me. Health community activities aimed at engaging the entire population in improving their wellbeing (Teruel).	GROUP 1. SOCIAL INCLUSION , HEALTH, AND WELLBEING	1.2 STORYTELLING AND ENVIRONMENTAL MEMORY WORKSHOP
5	Case 1. IVN #2UurNatuurChallenge #2HoursOfNature challenge. Month long challenge to enhance connection with nature for at least 2 hours a week.	GROUP 2. ENVIOREMENTAL EDUCATION AND NATURE CONSERVATION	2.1 VISITS TO NATURAL AREAS
6	Case 4. Gezond natuur wandelen – Healthy nature walks guided by a volunteer guide at fixed locations at fixed times for everybody who would like to join.	GROUP 2. ENVIOREMENTAL EDUCATION AND NATURE CONSERVATION	2.1 VISITS TO NATURAL AREAS
7	Case 4. Libera Universita' del Bosco (free university of the woods). Italy	GROUP 3. ENGAGEMENT AND COOPERATION	3.1 DESIGNING AN ENVIRONMENTAL PROGRAM
8	Case 1. The Arraigo project: creating bonds in a territory and transforming it into home.	GROUP 3. ENGAGEMENT AND COOPERATION	3.1 DESIGNING AN ENVIRONMENTAL PROGRAM 3.3 SOCIAL INTEGRATION -

			ENVIRONMENTAL VOLUNTEERING
9	Case 5. Public vegetable garden for senior citizens. Italy	GROUP 3. ENGAGEMENT AND COOPERATION	3.3 SOCIAL INTEGRATION - ENVIRONMENTAL VOLUNTEERING
10	Case 6. Sociaal Tuinieren Social Gardening - Social Gardening involves volunteers who sustainably refurbish and maintain neglected gardens of vulnerable people.	GROUP 3. ENGAGEMENT AND COOPERATION	3.3 SOCIAL INTEGRATION - ENVIRONMENTAL VOLUNTEERING

## 3. Objectives

This report serves as a basis for the next steps of the FLOWER+ project. Firstly, this report will give a basis for a comprehensive overview of the findings (i.e. the infographic) that will be made to disseminate across all networks by each partner, made by CEOMA in task 2.3. (WP2). Secondly, this report provide a thematic analysis to support the development of learning materials (WP3) and workshops (WP4) and to inform promotion and awareness-raising activities (WP5).

### 3.1. Objectives

1. Identify the **needs, wishes, and barriers of frail older people** about **nature-related activities** and **online materials** that will be created.
2. Identify the **needs, wishes, and barriers of formal and informal carers** about **nature-related activities** and **online materials** that will be created.
3. Finding **solutions** for the barriers.
4. Finding **motivational factors** for engaging in nature-related activities and using online materials.
6. **Generating new ideas**, that comply with their needs.
7. Increase **motivation** to participate in nature-related activities and use online materials.

### 3.2. Quantitative indicators

- Number of co-creation sessions. Target: **3 co-creations per country, 12 in total** – Achieved: **18 co-creation sessions in total, at least 3 per country, Spain did 6.**
- Number of participants in co-creation sessions. Target: **6-8 participants per focus group, 72-96 in total.**  
Achieved: **146 participants in total.**

### 3.3. Qualitative indicators

- Level of engagement of the target group during co-creation sessions. Will be measured in number of end user requirements brought forward (quantitative indicator) and through qualitative assessment by each focus group leader.  
Target: **good level of engagement of participants as assessed by each co-creation session leader.**  
Achieved: **Overall participants were interested, actively engaged, and showed interest in participating in further nature-related activities.**
- **Level of satisfaction of target groups with best practices identified.**



Target: **80% positive feedback in evaluation**, using a smiley questionnaire (very good, good, ok, not good).

Achieved: **The overall satisfaction rate was quite high, with 96% of participants (55% very good, 41% good).**

## 4. Results

### 4.1 Overview of the results

#### 4.1.1. Number of participants

The total number of participants in co-creation workshops was 146. There were 29 participants in Spain, 48 in Italy, in the Netherlands – Stichting Gouden Dagen and Stichting IVN did the sessions together and had 25 participants, and in Slovenia – Razvojni center srca Slovenije 25 in Spominčica Alzheimer Slovenia had 19 participants.

Table 5 Total number of participants

STICHTING GOUDEN DAGEN and STICHTING IVN	<b>25</b>
CONFEDERACION ESPANOLA DE ORGANIZACIONES DE MAYORES	<b>29</b>
ANZIANI E NON SOLO SOCIETA COOPERATIVA	<b>48</b>
RAZVOJNI CENTER SRCA SLOVENIJE	<b>25</b>
SPOMINCICA - ALZHEIMER SLOVENIJA	<b>19</b>
<b>TOTAL</b>	<b>146</b>

#### 4.1.2. Number of co-creation workshops conducted

The total number of co-creation workshops was 18. There were 6 in Spain (3 online and 3 face-to-face), 6 in Italy, in the Netherlands – Stichting Gouden Dagen and Stichting IVN did 3 together, and in Slovenia – Razvojni center srca Slovenije 3 in Spominčica Alzheimer Slovenia 3.

Table 6 Number of co-creation workshops conducted

STICHTING GOUDEN DAGEN and STICHTING IVN	<b>3</b>
CONFEDERACION ESPANOLA DE ORGANIZACIONES DE MAYORES	<b>6</b>

ANZIANI E NON SOLO SOCIETA COOPERATIVA	3
RAZVOJNI CENTER SRCA SLOVENIJE	3
SPOMINCICA - ALZHEIMER SLOVENIJA	3
<b>TOTAL</b>	<b>18</b>

#### 4.1.3. Number of frail older people, informal and formal carers

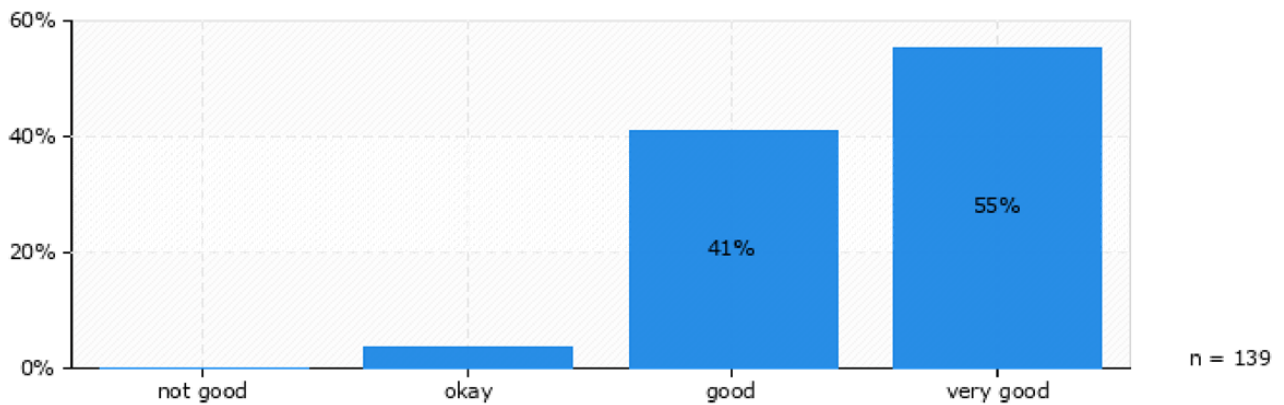
Table 7 Number of frail older people, informal, formal carers and others

	Frail older people	Informal carers	Formal carers	Others (volunteers, community listeners, active older people)	Total by consortium partner
STICHTING GOUDEN DAGEN AND STICHTING IVN	17	3	2	3	25
CONFEDERACION ESPANOLA DE ORGANIZACIONES DE MAYORES	19	5	5	0	29
ANZIANI E NON SOLO SOCIETA COOPERATIVA	18	0	0	30	48
RAZVOJNI CENTER SRCA SLOVENIJE	20	2	3	0	25
SPOMINCICA - ALZHEIMER SLOVENIJA	11	8	0	0	19
<b>Total by participants group</b>	<b>85</b>	<b>18</b>	<b>10</b>	<b>33</b>	<b>146</b>

#### 4.1.4. Level of satisfaction with presented practices scale

Participants showed the level of satisfaction with presented practices in co-creations sessions on a scale from not good, okay, good, very good. The table reveals overwhelmingly positive feedback, with a clear majority expressing high levels of satisfaction.

The largest portion of participants, constituting 55 %, rated the workshop as "very good." This suggests that a significant majority found the workshop to be exceptionally beneficial, exceeding their expectations. The high percentage in this category indicates a strong positive impact on the participants. A substantial 41 % of participants rated the workshop as "good." While slightly lower than the "very good" category, this still represents a significant portion of positive responses. Participants in this group likely found the workshop to be beneficial and effective, even if they didn't consider it exceptional. A small fraction, 4 %, rated the workshop as "okay." This suggests that a very limited number of participants had a neutral or mixed experience. It could be that these individuals found some aspects of the workshop satisfactory but had reservations or areas where improvement could be made. Interestingly, there are no participants who rated the workshop as "not good." This absence of negative feedback is a positive sign, indicating that none of the respondents had an entirely negative experience. It suggests that, at the very least, participants found the workshop to be acceptable.



The overall satisfaction rate is quite high, with 96% of participants (55% very good + 41% good) expressing positive sentiments about the workshop. This is a strong indicator of the workshop's success in meeting participants' expectations and delivering value. The sample size was 139.

## 4.2. Qualitative results from co-creation sessions

### 4.2.1. Frail older people

#### **What were the participants' wishes and needs regarding nature-related activities?**

In Spain, frail older people emphasize the importance of socializing with others and exchanging knowledge experiences, and memories with other people and other generations. They would like to be in contact with natural environments and participate in gardening and sensorial activities with aromatic plants. They like to discover natural resources and interact with them (i.e. growing small plants). They also consider it important to learn nature-based skills to participate in indoor and outdoor activities. Frail older people show a great interest in volunteering to protect natural environments and be engaged in environmental campaigns in the community in activities related to management and recycling, sustainable agriculture, climate change, community-level health promotion, etc. (CEOMA).

In Slovenia, frail older individuals express a deep interest in nature-related activities that encompass both exercise and socializing. These activities are particularly meaningful to them, as many of these elderly individuals often find themselves at home alone, often due to being widowed. Their strong desire for social interaction is evident, highlighting the importance of creating opportunities that not only connect them with nature but also provide avenues for building social bonds. To meet their needs and wishes, it's crucial to offer accessible nature walks, picnic areas, exercise stations, and engaging social programs. There has been a lot of interest in gardens adapted to stimulate the sensory senses, recognizing the potential for sensory-rich environments to enhance their well-being (SPO). Older people are very much interested into nature-related activities. A lot of the were hiking before the physical barrier and some still go on long walks. They miss the most the forest and having a big garden nearby. Flowers also give them joy. Nature means relaxation to them and most of them were working in the nature, having a garden and cultivating it. They pointed out that it's great when you have access to that and very important is also being in the sun, on natural light. They all wish to spend more time in nature, especially now when most of the live in elderly home and possibilities are limited.

**“Take care of yourself, care for me”** good practice seems very interesting to them. They expressed a need for more active participation in community activities. They love themed walks and workshops, specially because of social interaction. Health School was pointed out as very useful. Need for information about health and environment was mentioned.

**Nature suitcase** was seen as a good practice for those who find it harder to go out or are less able, but still prefer outdoor activities. Very useful according to participants, but still, they rather be in the nature. In Elderly home they have a room that is similar, since it stimulates their senses. For people with dementia this is more appropriate, since it evokes memories.

**Alzheimer gardens** was recognized as the most needed one and interesting. One person was purely satisfied with the garden in Elderly home but others wish bigger one, that is safe and no one can wander away. It is important they are designed with different plants and corners also to have enough benches. They also wish there will be sounds of birds in the garden or bells. In this kind of park, they would like to gather with others and chat. Gardens make them feel safe and relax and it works therapeutic. They expressed the desire to connect with nature and experience its therapeutic benefits.

**Public vegetable gardens for senior citizens** already exists in the capital of Slovenia, Ljubljana, but seniors expressed that it would be suitable to spread it to other regions, because at the moment it's only in the bigger cities. All of them had their own garden once and support such idea. This is an opportunity to engage in physical activity and to contribute to the community. For the ones from the rural area this is not so suitable, since almost all of them have their own garden, but for people in urban area this is very useful.

**The Arraigo project: creating bonds in a territory and transforming it into home** was not so interesting for participants. Building a community indeed is very important and for older people is always better to move from urban areas to rural area where you find peace and your own space in the nature. They missed a lot active engagement also the ones in Elderly home would like more of that – community activities and gatherings. The dream of some of them is to live in a community of not more than 12 people and living like a family.

Within **Social gardening** good practice, they pointed out that it is very useful because it is not only about engaging in nature, but also about maintaining long-term social contacts. There is also an emphasis on intergenerational socializing, which is sorely missed. They come to do the gardens, but at the same time it brings the whole neighborhood together, you get someone to help you do the garden, and you get to connect with neighbors you wouldn't otherwise get to know.

In conclusion, the identified wishes and needs of older people suggest a common thread of seeking social connections, engagement with nature, and opportunities for active and meaningful activities. The suggested improvements focus on enhancing participation, diversifying activities and promoting community involvement to ensure the sustained success and impact of these nature-related initiatives for older individuals (CHS).

Within the group of frail older people in the Netherlands (SGD), there is quite a high interest in nature-related activities. Depending on the person's background and physical ability, there is interest in actually being outside and in nature or merely interest in topics related to nature such as enjoying flowers, animals, or plants, learning about nature (can be through a television program). In one workshop held in the city of Utrecht, it was clear that big city life does not always lead to the wish to go on a trip to nature, but that walking outside on the street (passing gardens or city garden) or just enjoying flowers or plants on the balcony could be enough. The Garden Map was seen as interesting but of course, you need a garden of clear location (park) to make the map of. It does make looking at nature within a big city more interesting and attractive, especially when done together. In this light, the Nature Challenge is seen as appealing because it also makes looking and enjoying nature more interesting and gives the opportunity to enjoy together. The Nature Suitcase was mostly considered suitable for people in care institutions and not so much for older people who live independently at home. However, stimulating senses like smell and taste, is considered interesting and attractive to do. It is not completely clear in which

form or shape this should be done for older people living independently at home. The social aspect, being together outdoors and/or enjoying flowers/plants together, is important for quite a number of people. Because of physical limitations, often guidance is needed. The Dutch television program “12 green streets” was mentioned and considered very sympathetic. In this program, neighbors work together to make their neighborhood sustainably greener and in the process they get to know each other and build up a social relationship. This is in line with what is done during Parking Day where streets and parking places are transformed in (temporary) gardens with stands with information and inspiration about nature. The concept is seen as very inspirational and the social aspect is highly appreciated. The National Tile Tossing Championships was found attractive as well. Especially if it is organized as an activity with schools. The wish to add an activity that can be done together (between generations) was expressed like painting / redecorating the tiles. The social aspect was also mentioned when discussing Healthy Nature Walks. People wish to enjoy nature together. Going alone on a walk is often not appreciated. As a consequence a means of communicating with each is necessary (i.e. WhatsApp group or clear organization of the walks). The same wish was expressed when discussing Social Gardening. Participants indicated that they wish to have a (dedicated) buddy to watch birds together, look at trees, possibly someone who knows about flowers and plants. In general there is not necessarily always a lot of knowledge about plants or nature. This means that not everybody feels motivated to become a volunteer like in the Plan Be project. To make a nature-related activity interesting, it is necessary that people are taken along in the story and interesting facts are pointed out. Those who do have knowledge about nature (i.e. because they used to have a garden) are very happy to share their knowledge and teach others about plants and flowers etc. The idea of older people teaching the younger generation about nature is considered valuable and interesting too. In this light, it was also mentioned that a Nature Serves You Well training is considered valuable (though not urgent) for people who work together with elderly (formal and informal care) (SGD).

In Italy, Emilia Romagna Region is fundamentally a rural area, rich in peasant traditions. In particular, the target group we involved basically lives in rural areas (Carpi and surrounding areas). Furthermore, family and social networks, even informal ones, in our area are very strong, so elderly peoples rarely experience conditions of total social isolation. In general, we can say that elderly people who maintain good motor and cognitive skills have a strong connection with the earth and nature, which is generally interrupted only when significant cognitive and/or motor limitations occur. This condition is reinforced by the fact that many elderly people live in independent houses with gardens and/or have communal gardens. This situation has two consequences i) elderly people who don't independently carry out activities in nature don't do it because they have an objective physical/cognitive impediment in doing so and therefore can hardly be involved in the project activity (with the exception of the memory/aromatherapy suitcase) and ii) family members take on a role of caregiver only when the above conditions arise, for this reason it was difficult and also irrelevant to involve them. In general participants gave very positive feedback, especially in relation to the intergenerational characteristics of the interventions (ANS).

**What were participants' wishes and needs regarding online materials? What kind of materials would they enjoy (courses, serious games, worksheets etc.)?**

In all cases in Spain, participants show interest to be engaged in learning activities that allow them to socialize and interact with others. Some learning resources that would be helpful are the following: games about discovering and naming things in nature, learning nature skills (grow plants, recycling materials, recognizing objects in nature such as leaves, food, stones, etc.), watching videos of animals, landscapes, nature protection, traditions and discussing them (CEOMA).

In Slovenia, they were particularly interested in comprehensive manuals for outdoor activities, which would guide them on what they can create and engage in outside. These manuals should offer insights into gardening, providing instructions on how to nurture plants and create beautiful outdoor spaces. Additionally, participants emphasized the importance of having a centralized resource that compiles information about organized activities available in their local environment. This resource would facilitate easy access to information about group outings, nature-themed events, and social gatherings, making it convenient for them to stay connected and actively participate in these enriching experiences (SPO). Most of them are not enthusiastic about online materials, but they see it useful for everybody and in some case also for the people that are not able to go into the nature. For example, we introduced them the VR glasses and showed them 360-degree video of different beautiful locations in the world in nature and thus is something they would use, especially it is suitable for people that are physically not able to go to nature. They also mentioned courses are ok, but need to be together with activities in nature or that they would create something with their hands. In our case, the elderly participants express a strong preference for activities directly immersed in nature. The majority comes from rural areas, where homes often included personal gardens or fields. The transition from such spacious, green environments to more confined spaces in care facilities has been challenging for them. Their deepest longing is for the connection to nature they once had. Therefore, concrete outdoor activities such as herbalism, tending to herb and vegetable gardens, resonate most with their desires and needs. These pursuits not only fulfill their wish for nature-related engagements but also provide a sense of continuity from their past experiences, contributing to their overall well-being and satisfaction (CHS).

In sessions conducted by Stichting Gauden Dagen in general the target group was not immediately enthusiastic about online materials, especially not when thinking about something so tangible as nature. However, this also has to do with a lack of imagination about the possibilities. For example, watching videos about birds or other animals or about beautiful nature is appreciated and not immediately seen as “online” material. Besides that, it was mentioned that increasing knowledge about nature, i.e. learning about herbs and spices or about flowers, is also considered positive/ a wish. The possibility of using online materials like games or videos/clips or a combination of offline and online materials like a game or garden map with a walk through the garden are seen as positive. However, the online elements is still a bit frowned upon and needs more explaining. Online materials are also seen as not stimulating social interaction which is an important factor for many. This could lead to the wish to make online materials interactive/possible to use together with others. Online games about nature seems like an option, provided that it is not too complicated. Finally, many older people do not consider themselves very savvy when it comes to online materials in general. Some do use WhatsApp and other use other social media like Facebook, but when talking about “online materials” in general, the connotation is negative and associated with complicated. Besides that, there exists a fear of doing the wrong thing when online, or the association that being online comes with “danger” (hacking etc.) (SGD)

In Italy all participants stated that they would not be motivated to use online resources directly, but rather in presence workshop. Most participants said that it could be useful to collect suggestions and good practices to upload online, but that these would not be used directly by them or their family members. Anyway, this material could be use by organization and/or public authority to promote activities like that (ANS).

### **What were some fears, concerns, or barriers expressed by participants regarding nature-related activities?**

The main fear of frail older people in Spain is to be excluded of the nature-based activities because their health situation prevents them from participating. They fear not being informed about these activities and losing the opportunity to socialize. They do not want to feel loneliness and isolated due to illness as it contributes to their physical and mental deterioration (CEOMA).

In Slovenia frail older people pointed out worries about physical limitations, isolation, health and safety risks, weather-dependent activities, costs, fear of falling, and difficulties in social interaction (SPO). Some barriers and fear regardnigt practices presented in Slovenia (CHS) were for "Take care of yourself, care for me": those with physical mobilities making it difficult to engage in walks and outdoor activities, Lack of accessible transportation options may limit the ability of older participants to attend workshops or outdoor walks, not suitable for people with dementia. Nature suitcase: individuals with advanced dementia may face challenges in fully participating. Alzheimer gardens: physical limitations may find it challenging to navigate the defined paths, The design requirements, such as fences and gates, while essential for safety, may create accessibility challenges for older individuals with mobility issues or wheelchair users and also for people on beds (it would I be great if you could drive a person on the bed through this park). Public vegetable gardens for senior citizens: not suitable for people on wheelchair, depends on the municipality if this is something they would finance. Social gardening: Lack of volunteers, some seniors still don't trust people they don't know (CHS).

Overall, in Netherlands (SGD), participants were generally enthusiastic about the nature activities presented but many indicated right away that for them it was not really possible to enjoy nature on their own, due to their wheelchair boundness or physical limitations in general. This is the case when people want to join an activity like Healthy Nature Walks. Others who live independently alone also indicated that it does require effort to visit nature, whether it is a city park or a garden outside of the city. There also exists fear of catching cold, falling, being alone, always having to go with a group. In this case the nature suitcase would be a suitable activity. However, this is often associated with older people living in a care facility (many of who(m) suffer from severe dementia). The Parking Day initiative was appreciated but also seen as possibly risky. The lack of interest of society in keeping the few nature spots in cities in good shape was mentioned as a concern. Organizing a full day with neighbors putting in effort to make parking spaces into green spaces is a lot of work and also just for a day. This effort should be put in cleaning up and taking care of existing nature spots to make it more sustainable. In general enjoying nature becomes harder when garbage (especially plastics) are found in flowerbeds, grass is used to drive over, etc. Participants indicated that they did think that it is hard to keep nature spots clean and enjoyable in the city. Many did not feel it was their responsibility or indicated that they were afraid they were going to put a lot of time, effort and money in keeping the spots green and nice, whilst others neglect the spots. The activation of older people as



volunteers like in Plan Be was appreciated but fear of other (young?) people not appreciating the effort was mentioned too. When talking about the Garden Map, it was indicated that the map could also cause confusion. It is nicer when a buddy or caretaker knows about the garden him/herself. In this light when discussing Social Gardening it was mentioned that participants were afraid of failure and that you would end up with a overgrown garden which would lead to frustration. Those living in care facilities indicated that they did not see many opportunities to enjoy nature outside the garden of the facility. Depending on the activities offered, they would like to be engaged more in nature-related activities, but see it as a decision made by the care facility's management. The Nature Suitcase is a nice opportunity to enjoy nature with your senses but how sustainable is that feeling? As for the National Championships Tile Tossing, there is a worry that the pavement is not accessible for wheelchairs anymore and also the questions was asked, what is done with the spare tiles that are left? When discussing the 2-hour Nature Challenge, participants wondered if it was possible to think of enough challenges and whether this was a sustainable way of enjoying nature (SGD).

In Italy the most part of participants in the focus group have participated in the past in aggregation events through sporting activities (walks in nature of approximately 4/5 km), but membership has gradually decreased over time for the following reasons: Perfect time difficult to find: before 7pm in spring summer it is too hot but 7pm isn't an optimal time because people have to start make dinner, new commitments as grandparents, minor physical problems occurred (joint pain etc.) Only one of the participants continues to do physical activity independently in the early morning Participants state that these difficulties could limit their participation in activities of this type in the future (ANS).

#### **What ideas they come up with for overcoming fears and barriers?**

It is important for frail older people in Spain to feel included in the activities and feel that they can continue to contribute to society. The resources should empower them to participate in activities. Therefore, it is important to provide them with user-friendly online learning resources. The content must be intuitive, meaningful, and interactive nature activities. In this sense, it will be useful to use videos, intuitive games, interactive tools that allow them to express themselves verbally, socialize, learn skills related to nature, exchange about traditions and sustainable habits (horticulture, organic food, etc.) (CEOMA).

In Slovenia participants expressed ideas about designing activities that are safe, inclusive, and enjoyable for this demographic, allowing them to reap the benefits of nature-related experiences (SPO). It was pointed out that many people with dementia or disabilities are trapped in their own homes or Elderly homes and we need consider solutions also for them and encourage volunteering at home. Also providing transportation options, simplifying communication materials, ensuring program accessibility, and fostering supportive environment and volunteer network can overcome the barriers (CHS).

In Netherlands (SGD) when asked about overcoming fears and barriers, participants indicated that they do realize some of the imagined barriers could easily be overcome such as dressing for cold or potential rain, asking a buddy to come along in case you're afraid to fall or do not want to go in a big group. Finding a buddy is considered with mixed emotions. Some feel they could easily find someone to go into nature with, whereas others find it difficult to find someone or ask. Besides that it does help when the activity is enhanced with elements that make it fun. The implementation of flower boxes at wheelchair height was also considered a very good and

desirable option, not only for those with a wheelchair but also for those who are older and stiffer, in order to be able to work in the flower boxes. In general, there is an interest in possibilities to make nature-guided activities (or all activities for that matter) more interesting or enjoyable. This requires imagination or an offer they can not resist (SGD).

The participants in Italy didn't provide suggestions, but as ANS's staff we considered some solutions to the highlighted problems, particularly regarding motor limitations in general. In particular gardening could involve the use of raised space used for growing plants. The height of the flowerbed is such that it is easy for guests to use without having to bend down. Also green belongs to everyone, and contact with the natural environment must represent a resource that everyone can access. This is why in Italy we are working to equip routes, educational paths and reception facilities accessible to all (ANS).

### **What would motivate participants to attend nature-related activities?**

The contact with natural environments (gardens, horticulture, plants, rural life, traditions and cultural values, environmental protection, etc.) is a fundamental factor to attend nature-related activities in Spain. Nature-related activities are very attractive to frail older people, who want to be actively engaged in their communities by participating in courses and nature meaningful activities (CEOMA).

In Slovenia they expressed a deep desire for connection and often feel recharged by the presence of others. Highlighting the therapeutic benefits of nature, such as reduced stress, improved mental well-being, and enhanced physical vitality, is another powerful motivator. Offering tailored activities that cater to their interests and abilities, along with accessible transportation options, makes participation more appealing. Moreover, emphasizing the joy and sense of accomplishment derived from engaging with nature encourages their attendance, ultimately enriching their quality of life (SPO). Informal and formal carers, family, friends and volunteers need to emphasize the physical and mental health benefits associated with outdoor activities. Good company motivate them and relaxed environment. Social gathering and making new friends also motivate them and the possibility to share their experiences and life stories. Some are motivated also by educational elements - workshops, guided tours. Engaging in activities like community gardening where they contribute to their community and environment. They also wish to be involved in intergenerational activities and young and children are always the best motivation, since they like to spend time with them (CHS).

In Netherlands (SGD) In general, active engagement efforts seem to be necessary to involve older people in nature-guided activities, even though there is a lot of interest and positive emotion with the topic. This has to do with a feeling of vulnerability, especially when outside of the house/home. It also has to do with a feeling of dependability on others. Besides that, many people do not have the creativity to see possibilities to enjoy nature in different ways. A creative pro-active approach would help. In this process, it is important to be able to involve a buddy other create a social link, although some people also indicate that they would like to independently enjoy nature activities by themselves of course. In that case, reinforcement / empowerment of their ability to do things independently and to come up with creative ideas or follow interesting instructions is important too. Making nature-guided activities accessible for anyone with physical limitations is key too. This includes, nice gardens with diverse vegetation in care facilities and in city parks etc. Besides that accessible paths, wheelchair accessible activities etc. In one group, the 2-hour challenge was an eye-opener (SGD).

In the Emilia Romagna Region the elderly who do not have particular motor and cognitive limitations live daily activities in contact with nature, because it is part of the rural tradition of our territory. Even caregivers generally continue to offer their loved ones opportunities of this type and there is certainly no lack of imagination and skills in the matter. What is probably missing and could increase the level of motivation and interest even more is the transfer of this knowledge to young people. Organize activities of an intergenerational nature, at the level of public authorities or, for example, within facilities for the elderly. In our region there are several good practices in this sense: for example involvement of grandparents to create school gardens in primary and nursery schools, activities in facilities for the elderly with children of all school levels, even if in some cases the teaching staff struggles to follow all the activities, also considering the teaching commitment (ANS).

### **What would motivate participants to use online materials?**

Frail older people in Spain are heterogeneous and not all of them want to participate in online courses, due to the digital divide, and there is a fear that they may feel dependent when using computer devices. The most important motivation is to participate in nature-related activities. The content must be interesting, understandable, and cognitive accessible, the platform must be attractive, intuitive, and with a user-friendly interface. Frail older people want to be treated like any other person and feel capable to learn in an independent way. It is important to inform and to educate in an accessible way. One important thing will be to help users understand the online learning resources and content proposed and how to use them (CEOMA).

In Slovenia primarily the desire for additional information and opportunities to connect with others were pointed out. They also value accessible platforms that are easy to navigate, ensuring a user-friendly experience (SPO). They would use it if it is clear, user-friendly, easy to understand and very simple, attractive. Its better if they all use it together as a group and play some games in this topic. Visual elements, such as graphics and illustrations, should be a primary focus. Many individuals respond well to visual stimuli, and incorporating these elements can aid understanding. The content should strike a balance, presenting information in a visually appealing manner without overwhelming the participants (CHS).

In Netherlands target group said that because of a lack of imagination about the possibilities the most important motivation would be clear instructions and stimulating examples. Watching movies is the easiest and most accessible way of using online materials. Games can make the use of online materials more accessible and engaging, provided that they are easy to use. Picking the right topics is important too. Flowers are seen as very attractive. Besides that cute animals and beautiful landscape. Interesting facts about nature in the neighbourhood (plants in the flower beds of the city somebody lives in or the birds and bees in the neighbourhood) are most important when it comes to learning about nature. The closer to home, the more relevant (although exotic birds and plants are considered to be interesting too). Initially, the use of online materials would be easiest if introduced by informal caregivers. It would be most fun if the online materials can be used together (SGD).

Online material in Italy is not appreciated, reflecting together with our target group, the only tool of interest could be the videos on the management of separate waste collection. In our area the separate waste collection system changes very frequently and the elderly have difficulty keeping up to date (ANS).

### **What green skills do participants possess?**

Some older frail people in Spain who participate in the workshops come from rural areas, so they are familiar with organic agriculture and sustainable traditions such healthy aging, environmental protection habit. Some participants also own a garden and most of them like to take a walk on the countryside, parks, and gardens. Some participants have experience as volunteers in social organizations that advocate for natural environment protection. They all are concerned about climate change and its consequences an impact for the health of vulnerable groups (CEOMA).

In Slovenia most of them engage in waste management and recycling, diligently separating waste and minimizing plastic bag use. They are environmentally conscious, understanding the importance of planet preservation amid rising natural disasters. Many use sustainable transportation, favoring public transport to reduce their carbon footprint (SPO). Most of them did not know what we mean with green skills and after we presented, they pointed out that they know what recycling is and that we need to take care of our planet, animals and water. When they were young the planet was cleaner and we had more green areas. Their knowledge about green skills was basic (CHS).

In Netherlands (SGD) environmental (pollution) issues do concern these seniors, they are concerned about the welfare of their (grand)children. This is reflected in the fact that they separate their waste for example. Most participants expressed the wish to have more greenery in the area, but their own contribution to that is minimal. Physical and mobility limitations are mentioned as biggest reason for this, as well as financial situation. When talking about more green in the neighborhood, waste and pollution are mentioned a lot. Participants indicate that, especially in the city, plastic and other packaging material are often polluting the flower beds and green areas. Some participants clean up regularly but some also do not feel the responsibility. Not all participants feel they really have green skills. The general knowledge level of plants and flowers and how to take care of them, is limited. Also, the ideas about sustainability are not always clear to participants (SGD).

The elderly in Italy have important green skills in the areas of: knowledge of the natural environment of your territory (flora and fauna), gardening and horticulture. However, they have a lack of skills in the field of: energy saving, climate change, sustainable transportation, waste management and recycling.

### **What feedback frail older people gave?**

In Spain participants gave feedbacks on co-creation sessions:

- *I don't know to what extent the activities would have been accessible to me, especially without feeling more dependent rather than empowered to be more independent (CEOMA).*
- *I loved this workshop. I am interested in participating in more activities like this (CEOMA).*
- *The workshops addressed important and meaningful needs to frail older people. After these workshops, they felt motivated to participate in new nature-based activities (CEOMA).*

In Slovenia they found the experience of engaging in discussions and shaping these activities highly rewarding. They conveyed a strong desire to participate in upcoming project activities,

highlighting their enthusiasm for continued involvement. In general, they appreciated the opportunity to have their voices heard and to play an integral role in crafting meaningful and enjoyable experiences in nature (SPO). During the workshop, the participants pointed out that nature mean a lot to them and for those that live in the Elderly home this is really hard, since they don't have much opportunities to enjoy in nature. They have workshops in the topic and they also have their own garden, have done some classes on aromatherapy, but still, they miss activities in the nature and wish it would be more accessible. Most of the participants were overwhelming when they tried VR glasses and start their journey to nature, and one formal caregiver cried, when she thought about people that are immobile and they use this VR glasses and see the nature in virtual reality (CHS).

In Netherlands during the workshop, various thoughts emerged about getting "closer" to nature, and participants proposed the following ideas:

- Establishing a communal vegetable garden in which vegetables are grown that can be used in a variety of dishes, incorporating diverse cultures. Working in the garden is a good reason to get to know neighbors from different backgrounds enabling to connect through gardening and cooking.
- Forming a WhatsApp group for walking or nature enthusiasts, which is more convenient than structured activities and allows for spontaneous invitations.
- Requesting the municipality to establish a communal garden where individuals can freely pick flowers and fruits.

In Italy participants expressed the wish to further participate in those activities.

#### 4.2.2. Informal and formal carers

##### **What were carer's wishes and needs regarding nature-related activities?**

Caregivers in Spain consider this community health experience to be necessary, as it allows frail older people to socialize in natural environments, away from the health care center (Case 1. Take care of yourself). Caregivers consider the theatrical performance interesting, but some participants are not sure that frail older people can participate as actors in this activity. They valued positively the reminiscence and outdoors activities proposed in this case (Case 2. Contatto Project). Caregivers agree on the need to learn nature-based skills to interact with nature in a meaningful nature way (Case 1 Training nature serves you well). Caregivers agree on the important of participate in sensory activities in contact with medicinal, aromatic, and horticultural plants. Learning basic nature-base skills on this issue are essential to participate on these activities (Case 2. For a better tomorrow with dementia in Korenika eco-social farm). Caregivers consider the involvement of frail older people as volunteers in environmental campaigns is an opportunity for their social inclusion in community life (Case 1. The NK Tile Tossing with impact). Caregivers agree on the importance of learning materials for promoting volunteering, with a special reference to the benefits for frail older people of interacting with natural environments (Case 2. Plan be, active senior volunteers). (CEOMA).

Carers of frail older people in Slovenia expressed a desire for nature-related activities that promote physical and mental well-being, such as gentle nature walks and gardening. They emphasized the importance of activities being accessible, safe, and inclusive. Best practices from the workshop included incorporating sensory elements like bird watching, creating therapeutic garden spaces, and providing caregiver support during these activities to ensure a positive experience for both carers and their elderly loved ones (SPO).

Formal and informal carers support nature-related activities and good practices, especially for frail older people. Their wishes and needs regarding the presented good practices were (CHS):

“Take care of yourself, care for me” - The program can potentially be adapted and expanded to take into account the needs of people with dementia and they very much liked the radio program “Health School”. They see the GP as a great idea and we could have doctors, nurses, paramedics, patronage from the Litija Health Centre come once a month or 4 times a year and prepare different topics for seniors. It is also possible to invite their relatives.

Nature suitcase - They liked the practice very much because different objects can stimulate seniors to recall memories, promote communication and reduce social isolation. Great as a tool to help with how to spend time with a person with dementia. They see it in use also for the people that don't have dementia, but neurological problems, it can be used within self-help groups to stimulate conversation and other forms of group work, e.g. memory exercises, etc. Suitcase could also be filled with other objects to change the theme - e.g.: antiques, creative objects, ect.

Alzheimer gardens - What impresses them is how it has been really designed with the specific needs and challenges of people with dementia in mind. It seems such gardens would be very welcome in our care homes, not only for people with dementia, but also for other users. This GP is seen as a great idea and a great design. They suggested those fences could be changed and locked gates to replace them or cover them with something natural, e.g.: some nice, thick, flowery shrubs; with high beds that you can't climb over or under.

Public vegetable gardens for senior citizens - I also find this practice inspiring, it seemed that it would be very appropriate for the Slovenian environment. Such gardens would be particularly suitable for seniors who are fully independent, who like to do activities of this kind and who still want to be active and useful. Every now and then there is a senior who wants to be involved in such an activity on a larger scale. If this existed here in Litija, we would have an additional possibility to offer such an activity, a connection with the local environment or with other people.

The Arraigo project: creating bonds in a territory and transforming it into home – It was pointed out that in Slovenia there are many empty villages and buildings in Slovenia. Smaller residential communities, living in interaction with the other residents, sounds like a great idea. If the project was adapted to include people with dementia, it could offer a great opportunity to improve their quality of life, social interaction. The idea of the community of 12 seniors living together as a family in rural environment came out. They see it as the best solution to live in old age.

Within Social gardening - also a good project, very suitable for a Slovenian environment with a tradition of gardening. In connection with Elderly home - they have a garden which they maintain by themselves with the help of staff and residents, but if volunteers came once a year and helped with the design it would bring a lot of positive and good things, some other ideas, meeting other volunteers, socializing at work, not only for the residents, also for the staff.

In Netherlands (SGD) many of the wishes and needs older people pointed out, were also mentioned by the carers. Carers embrace the idea of spending more time outside or in nature when with older people. Making activities more engaging and interesting is also welcomed. Carers also mention the physical limitations of older people as a barrier so making a trip outside should be easy, nearby the house and not too long. A **Parking Day** could fit in the social concept that is also welcomed by the (in)formal carers. As for making **Healthy Nature Walks** together, it is important to make these walks easy, entertaining and not too long/time consuming. The **Nature Suitcase** seems attractive, but is associated with very frail people. However, if the instructions are clear and engaging, this is considered an attractive activity by caregivers. Besides that, younger carers did mention that they have the impression that older people feel that young people do not care about nature and are not worried about waste and pollution, which is not true. Finding each other in a shared concern about clean nature to enjoy is a wish and seems like a good opportunity to find each other to discuss and organize meaningful activities. Carers also mentioned that they found a **Nature Serves You Well training** a welcome possibility to learn about nature themselves and use their knowledge in their care for elderly. Volunteer work in parks, like in **Plan Be**, keeping the flower beds clean and caring for local nature can be done by older and younger volunteers together. This will be a very nice way of spending time together. Additionally **Social Gardening** is a welcome idea. Obviously there needs to be land and resources (finances) available to make this a success. The municipality needs to be involved. **National Championship Tile Tossing** is welcomed by carers as well. The competitive element is not necessarily what makes it attractive. The idea of making nature available in a possibly creative way is important. An activity to paint/decorate the tiles linked to the activity is mentioned a lot. **2 hour Nature Challenge** is also found very attractive both offline as online. It can make spending time/the care for the elderly more interesting as long as it is not too hard or complicated (SGD).

#### **What were carer's wishes and needs regarding online materials?**

Considering the huge range of benefits of nature interactions, caregivers in Spain expressed their wishes and needs related the following items:

- Know different nature-based activities to enable frail older people to interact with nature.
- Identify nature-based skills to facilitate the participation of frail older people in outdoor and indoor activities.
- Recognize and spread the benefits of being in contact with natural resources.
- Recognize different ways of interacting with natural resources.
- Teach the caregivers on promoting healthy habits interacting with natural environments.
- Learn how to participate in the different phases of an environmental campaign.

In Slovenia carers pointed out ideas for online materials: online games, recipe ideas (sharing recipes using ingredients from nature, such as foraged foods or herb-based dishes, promoting healthy cooking), activity guides (develop step-by-step guides with tips on nature-based activities, such as crafting with natural materials, creating nature art, or building birdhouses), video tutorials (instructional videos on how to engage in nature-related activities like gardening, or outdoor exercises), nature cards (printable and digital flashcards with information about local flora, helping frail older people identify plants and animals during outdoor outings) (SPO). They

see it useful if it is in combination with outside activities. Videos and nice pictures are interesting, also games (CHS).

In Netherlands (SGD) in first instance, older carers do not care much for online materials. However, when prompted with the ideas of video/clips about nature and possibly games or quizzes, they were interested. How to use these in combination with the care for an elderly is still not clear, but not unwelcome. Younger carers see online opportunities as more attractive although the link with “real nature” is a must. An interactive game or a video you can enjoy together is considered desirable. To have imagination of the possibilities is hard for all caregivers, especially the older ones. Interactivity is important and also a “real” or tangible connection to nature (SGD).

### **What were some fears, concerns, or barriers expressed by carers regarding nature-related activities?**

In Spain it is worrying that older people do not receive information therefore they are unable to participate in activities, the problem of bureaucratic issues to facilitate intergenerational activities. It is important to collaborate not only with schools but also with NGOs and other associations. The caregivers consider that the activities showed in this case are more accessible for people with physical disabilities, and not all of them. i.e. Birdwatching is an accessible activity for all. The involvement of frail older people in volunteering activities is considered very important for any initiative at local level, as their opinion is the most important to build accessible and age-friendly urban environments. For workshop 3. Case 1. caregivers think that it is not realistic to propose this activity in Spain, because the municipalities should be involved in this kind of activities (CEOMA).

Carers in Slovenia expressed concerns about the safety and physical limitations of frail older adults during nature-related activities, fearing potential accidents or health issues. Motivating frail older individuals to participate in nature-related activities can be challenging due to concerns related to their willingness and physical capabilities, since some older adults may be hesitant or resistant to engage in outdoor activities due to fear, anxiety, or a lack of interest. They might worry about discomfort, fatigue, or the perceived effort required. Frail older adults may lack confidence in their ability to participate in nature activities, leading to a reluctance to try new things (SPO). For this kind of activities, there were few challenges pointed out a lack of adequate training and education. Formal caregivers, such as healthcare professionals, have demanding workloads and time constraints that limit their ability to engage in additional activities like workshops or nature-related outings. There are also financial constraints related to the implementation of certain good practices. This includes costs associated with materials, training, or maintaining facilities. Also, cooperation and involvement of Municipality is very important. Caregivers, especially those with established routines, may have hard time to put this kind of activities into schedule, introducing new practices may add to the workload and contribute to caregiver fatigue. They also struggle with a lack of resources, such as educational materials, tools, or equipment needed for specific nature related GPs, like the Nature Suitcase or Alzheimer gardens (CHS).

The barriers in Netherlands were (SGD) to go outside come mainly from the lack of time the (care)work have during the day and the mobility (lack of accessibility) of the elderly person. A concern is also to come up or to organize nature/outside activities. Also the weather is a barrier, although during the summer period is this barrier less (more sunny days). This is true for **Healthy**



**Nature Walks and Social gardening** as well as other activities. In addition, finances are also a barrier to undertake activities, like setting up a **Social Garden** or organizing a **Park Day** but during the workshop the caregivers thought that just going outside does not cost anything. Then it is more about their time that they are outside, due to lack of staff that is less appreciated and also about who takes care of the garden to make it sustainably attractive to use. Some (informal) caregivers do not seem to be able to think of engaging fun and interesting activities in nature. Go for a walk seems the most obvious way of enjoying nature. Lack of knowledge about nature and lack of inspiration to do something interesting seem to play a role too. **The Garden Map** or **2-hour Nature Challenge** could help. Also a fun activity like **Tile Tossing** and combining it with decorating the tiles. A **Nature Serves you well-training** can be an option but should not be expensive and not too time-consuming. As mentioned before, the **Nature Suitcase** is seen as an attractive activity but associated with very frail people in care homes. If suitable for a frail older person who lives at home and if it comes with clear instructions and engaging game (?) this seems like a good option. **Parking Day** is seen as very positive. However, there is a lot of organizing involved. Participating seems fun but also taking up time and energy. However, if the municipality would organize, people would definitely consider participating (SGD).

#### **What were their ideas or experiences for overcoming fears and barriers?**

The caregivers in Spain suggest creating a train of trainers' course on health prevention and wellbeing in contact with natural environments. It would be possible to create some online courses considering the following characteristic: users-friendly interface, intuitive and visuals contents, game-based activities, and IT tools to facilitate communication among participants. It is important to address the campaign to public authorities along with NGOs in order to raise awareness on the importance of environmental volunteering and promote the participation of all generations (CEOMA).

Employing strategies like setting achievable goals, offering emotional support, adapting activities to individual needs, and providing positive reinforcement to build motivation and confidence in frail older individuals were ideas in Slovenia. They said that once they manage to get out and have a good experience in nature, in connection with others, they will want to do it again (SPO). Implement comprehensive training programs for formal and informal caregivers to enhance their skills and knowledge in nature related good practices for seniors and frail older people. This can include workshops, online courses. Offer flexible scheduling options for formal caregivers to accommodate nature-related activities or workshops, reducing the impact on their already demanding work schedules. Provide financial support or grants for caregivers to cover the costs associated with implementing good practices. This could include funding for materials, equipment, or attending relevant training sessions. Implement change management strategies to address resistance among caregivers. This involves effective communication, highlighting the benefits of the proposed practices, and involving caregivers in the decision-making process (CHS).

The caregivers in Netherlands (SGD) came to the conclusion that for the well-being of the seniors, going outside is necessary and you just have to make time for it. Developing their own little garden at the care center, with help from others or ideas such as those presented at these workshops. Also, the train-the-trainer activity is definitely what they need! Offering fun and interesting activities will encourage people to do more in nature. If accessibility is taken care of that is.. (SGD).

### **What carers think would motivate frail older people to attend nature-related activities?**

In all the cases, caregivers in Spain consider that frail older people have are highly motivated to be in contact with natural environment and to participate in nature activities with others. One of the motivation factors is the opportunity to socialize and stay in contact with other people. Caregivers are aware on the importance that public or private transport to enhance the accessibility to participate in group activities (CEOMA).

Carers in Slovenia believe that motivating frail older individuals to attend nature-related activities can be achieved by emphasizing social interaction, tailoring activities to individual interests, providing positive feedback, offering a variety of experiences, highlighting therapeutic benefits, and establishing a regular routine. By addressing these aspects, carers aim to create an environment where older individuals feel a sense of community, personal fulfillment, and improved well-being, ultimately encouraging their active participation in nature-related activities (SPO). Carers believe that frail older individuals could be motivated to attend nature-related activities through personalized engagement, tailoring activities to individual interests and mobility levels. Creating a sense of community, emphasizing social connections, and highlighting the therapeutic benefits of nature may encourage participation. Offering transportation support, ensuring accessibility, and incorporating familiar elements into outdoor experiences are seen as key motivators. Carers also stress the importance of clear communication, addressing fears or concerns, and showcasing the positive impact of nature activities on physical and mental well-being to inspire frail older individuals to embrace these opportunities. Seniors need to feel safe, relaxed and have the feeling of being home. Activities that bring out the memories of their childhood are also a strong motivator (CHS).

In Netherlands (SGD) carers pointed out that it would be very nice if nature-related activities were organized from the care homes. Low-threshold activities and actually ready-made for which not much organization is needed. But also sitting outside in the garden is already an enrichment for the seniors, watching the birds and perhaps this supplemented with a game (2-hour challenge) or online. For older people who still live at home, accessibility is important too. And a clear program with a good description of the possible activities. Activities should be fun, interesting with clear instructions to follow. A social connection is a very good motivator to participate in nature activities (SGD).

### **What do they think would motivate frail older people to use online materials? (up to 100 words or 600 characters with spaces)**

Socialize with others, talking about health prevention and healthy habits, in natural environments, away from the health care centers carers in Spain carers think would motivate frail older people. The video repository is highly valued, but they consider that most of the videos are not designed according to the needs of frail older people. Nature protection motivates frail older people to be engaged in campaigns and contribute to raise awareness on nature protection (CEOMA).

Carers in Slovenia believe that motivating frail older individuals to use online materials can be achieved by making these resources user-friendly, relevant, and engaging. They recognize that personalization, with content tailored to the individual's interests and needs, is essential. Online materials should be easy to use, even for the less digitally literate (SPO). There are some seniors that would use online materials, but most of them are not keen of that. Carers believe that facilitating user-friendly online platforms tailored to the specific needs and preferences of frail

older individuals would motivate them to use it, but need to be very simple and clear with videos and games. Offering clear and simple instructions, incorporating familiar topics, and providing technical assistance can boost confidence and reduce the barriers related to digital technology. It would be also possible if each senior would have a volunteer to help him. By carers opinion VR glasses are extremely interesting and useful for seniors (CHS).

In Netherlands (SGD) even the care givers were not initially enthusiastic with online activities, but watching movies together and doing games related to their own environment does offer perspective. Making online materials interactive so that they can be used together with others seems a good idea. Besides that, combining tangible real activities in nature with online materials seems a good option. Most would like to do this together with another person. Most would not use the online materials on their own (SGD).

### **What green skills do carers possess?**

The caregivers that participated in the workshops in Spain are aware about good practice cases on waste management and recycling, water management, sustainable agriculture, climate change, sustainable transportation, and others. Some caregivers have participated in experiences of community health and healthy habits. Some of them have organized workshops with vulnerable people in gardening and cooking activities. Some participants are volunteers in associations of neighbours and collaborate with municipalities in environmental projects (CEOMA).

Waste management and recycling expertise, as they manage the disposal of recyclables and reduce household waste are green skills carers in Slovenia possess. They may also have knowledge in water management, conserving water resources and reducing consumption. Some are informed about climate change and advocate for energy efficiency and reduced carbon footprints. Sustainable transportation knowledge, such as using public transit, is another skill they possess. Reducing plastic use, they try not to use plastic bags and try to use reusable alternatives. They feel it is important to pass on this knowledge to younger generations, and try to raise their children with the same mindset (SPO). Also they possess similar to seniors, like recycling, animals, water and taking care of our planet, but have more knowledge about it (CHS).

Like the seniors environmental (pollution) issues do concern caregivers in Netherlands (SGD), they are concerned about the welfare of their (grand)children. This is reflected in the fact that they separate their waste for example. Most participants expressed the wish to have more greenery in the area, but their own contribution to that is minimal. Physical and mobility limitations is mentioned as biggest reason for this, as well as financial situation.

### **What feedback careers gave?**

In Spain carers gave feedbacks on co-creation sessions:

- *It was a great experience. Thank you for organizing and facilitating it. The cases encourage everyone to be involved in nature-based activities, they do not mean complex behaviours or any additional effort. (CEOMA)*
- *I enjoy participating in new projects. It is always a motivation to get involved in different initiatives. I consider very important focus on socializing, sharing, and learning. (CEOMA)*
- *Volunteering is a good option for frail older people and caregivers. Most of the times, frail older people and caregivers are retired and very talented. (CEOMA)*

- *Of course. These practices can be extrapolated to other centres and made known through videos, leaflets or other elements. (CEOMA)*
- *I believe that online training materials for older people can be developed, but they must be very intuitive and very structured and with very specific content. Very open formats, of discussion, can result in being vague, imprecise and lead to a reduction in the participation of one or two people who take the lead and the rest remain as listeners. (CEOMA)*

In Slovenia they were satisfied with the workshops and liked the idea of the Alzheimer Garden the most, which they thought is a good idea for all frail elderly people. They also liked the idea of organized walks, which would encourage the elderly to walk and at the same time to be socially involved, thus reducing loneliness. The biggest problem they see is motivating the elderly, who often prefer to stay indoors, especially in the colder months when there is a greater risk of slips. This is why they are also enthusiastic about the idea of online resources, where they could be introduced to and given ideas for activities that are indoors but connected to the outdoors (SPO). The workshop was very useful and it opened some important fields to be more developed and put into consideration. Carers, especially formal one, dreamed of what could have been done and what would be the best for seniors regarding nature-related activities (CHS).

In Netherlands (SGD) carers pointed out that it was nice that through this workshop people started thinking about nature and nature-related activities again. It is important for both young and old to bring nature more into the lives of participants, at home or in the carehomes and think about it. Probably a lot is already being organized by the municipality, but people don't know about it. All the activities discussed in this workshop are beautiful and worth developing further.

## 4. Conclusions

The co-creation sessions conducted gave us insights into the preferences, motivational factors, and barriers for frail older people and carers to participate in nature-related activities and to use nature-related online tools.

The overall satisfaction rate with presented practices in co-creation sessions is quite high, with 96% of participants (55 % very good + 41 % good) expressing positive sentiments about it. This is a strong indicator of the workshop's success in meeting participants' expectations and delivering value.

Overall frail older individuals and carers who participated in co-creation sessions highlighted the rewarding experience of engaging in discussions and shaping nature-based activities, with a strong desire for continued involvement after participating in nature-related activities.

An overview of the main findings in consortium partner countries is gathered in Table 8 and Table 9.

*Table 8 Overview of main findings from co-creation sessions for frail older people*

<b>Wishes and needs regarding nature-related activities</b>	<ul style="list-style-type: none"> <li>· Socializing and social interaction</li> <li>· Physical exercises in nature</li> <li>· Activities that include flowers, animals, plants, gardening, forest</li> <li>· Learning about nature</li> <li>· Sensorial stimulation like smell and taste</li> <li>· Exchanging knowledge, experiences, memories</li> <li>· Intergenerational cooperation</li> <li>· Intergenerational exchange of knowledge</li> <li>· Contact with natural environments, gardening, sensorial activities, aromatic plants</li> <li>· Discovering natural resources</li> <li>· Learning nature-based skills</li> <li>· Interested in volunteering to protect natural environments</li> <li>· Environmental campaigns like management and recycling, sustainable agriculture, climate change, community-level health promotion</li> <li>· Sensory gardens</li> <li>· WhatsApp group or clear organization of the walks</li> </ul>
<b>Wishes and needs regarding online materials</b>	<ul style="list-style-type: none"> <li>· Online material that allows socialization and interaction</li> <li>· Games about discovering and naming things in nature, learning nature skills (growing plants, recycling materials, recognizing</li> </ul>

	<p>objects in nature such as leaves, food, stones, etc.), learning about flowers, herbs, spices.</p> <ul style="list-style-type: none"> <li>· Watching videos of animals, landscapes, nature protection, traditions and discussing them,</li> <li>· Manuals for outdoor activities (gardening, providing instructions on how to nurture plants and create beautiful outdoor spaces)</li> <li>· Information about events organized in the local environment (group outings, nature-themed events, and social gatherings)</li> <li>· Videos, intuitive games, interactive tools</li> <li>· Interesting facts about nature in local neighborhoods – the closer to home, the more relevant</li> <li>· Videos on separating waste</li> <li>· VR glasses with 360-degree video of beautiful locations of nature around the world</li> <li>· Combination of nature activities and online resources</li> </ul>
<p><b>Fears, concerns, or barriers regarding nature-related activities</b></p>	<ul style="list-style-type: none"> <li>· Exclusion</li> <li>· Not being informed about events</li> <li>· Physical limitations</li> <li>· Isolation (especially those living in care facilities)</li> <li>· Health and safety risks</li> <li>· Weather-dependent activities</li> <li>· Costs</li> <li>· Fear of being alone</li> <li>· Fear of falling</li> <li>· Difficulties in social interaction</li> <li>· Concerns about litter in urban nature spots and the fear of unappreciated efforts to maintain them</li> <li>· Confusion</li> <li>· Advance dementia</li> <li>· Not trusting other people they don't know</li> </ul>
<p><b>How to overcome those fears?</b></p>	<ul style="list-style-type: none"> <li>· Social inclusion</li> <li>· Empowerment</li> <li>· User-friendly online resources</li> <li>· Intuitive, meaningful, and interactive nature activities content</li> <li>· Safe activities</li> <li>· Appropriate clothing</li> <li>· Asking a friend to come along</li> <li>· Adapting activities and materials for people with disabilities (wheelchairs, beds).</li> <li>· Online materials that allow one to express verbally, socialize, learn skills related to nature, exchange traditions and sustainable habits</li> <li>· Transportation options</li> <li>· Simplifying communication materials</li> <li>· Ensuring program accessibility</li> <li>· Fostering a supportive environment and volunteer network</li> </ul>

<p><b>Motivational factors for nature-related activities</b></p>	<ul style="list-style-type: none"> <li>· Contact with natural environments</li> <li>· Socializing</li> <li>· Highlighting the therapeutic benefits of nature</li> <li>· Active engagement effort</li> <li>· Pro-active approach</li> <li>· Empowerment of their abilities</li> <li>· Creative ideas</li> <li>· Interesting instructions</li> <li>· Accessible activities for everyone</li> <li>· Transfer of knowledge about nature to young people</li> <li>· Intergenerational cooperation</li> <li>· Involving grandparents to kindergartens</li> </ul>
<p><b>Motivational factors for using online materials</b></p>	<ul style="list-style-type: none"> <li>· Interesting, understandable, cognitive accessible, attractive, intuitive content and with a user-friendly interface</li> <li>· Helping frail older people with digital aspects</li> <li>· Online material should be easy to navigate</li> <li>· Clear instructions</li> <li>· Stimulating examples</li> <li>· Movies and games</li> <li>· An attractive theme (flowers, animals, beautiful landscapes)</li> <li>· Online materials should be introduced by informal caregivers</li> <li>· Videos</li> <li>· Visual elements (graphics, illustrations)</li> </ul>
<p><b>Green skills</b></p>	<ul style="list-style-type: none"> <li>· Organic agriculture</li> <li>· Sustainable traditions</li> <li>· Environmental protection habits</li> <li>· Volunteering in social organizations for environmental protection</li> <li>· Concerned about climate change</li> <li>· Waste management and recycling</li> <li>· Understanding the importance of planet preservation amid rising natural disasters</li> <li>· Public transport</li> <li>· Environmental (pollution) issues</li> <li>· Desire for more greenery but limited contribution due to physical, mobility, and financial constraints</li> <li>· Ideas about sustainability were not always clear</li> <li>· Limited horticultural knowledge</li> <li>· Knowledge of the natural environment on local level (flora and fauna)</li> <li>· gardening and horticulture</li> </ul>
<p><b>Feedbacks</b></p>	<ul style="list-style-type: none"> <li>· Good level of engagement in co-creation sessions</li> <li>· Motivation to participate in upcoming events</li> <li>· Participants felt heard in these co-creation sessions</li> <li>· Requesting the municipality to establish a communal garden</li> <li>· Overwhelming experience with VR glasses</li> <li>· Wish they had more opportunities to enjoy nature</li> </ul>

Table 9 Overview of main findings from co-creation sessions for formal, informal carers and others

<p><b>Wishes and needs regarding nature-related activities</b></p>	<ul style="list-style-type: none"> <li>· Socializing and social interaction</li> <li>· Learning nature-based skills</li> <li>· Sensory activities in contact with medicinal, aromatic, and horticultural plants</li> <li>· Volunteering in environmental campaigns</li> <li>· Activities that promote physical and mental well-being, such as gentle nature walks and gardening</li> <li>· Accessible, safe, and inclusive activities</li> <li>· Sensorial gardens</li> <li>· Bird watching</li> <li>· Creating therapeutic garden spaces</li> <li>· Engaging and interesting activities</li> <li>· Walks should be easy and not too long</li> <li>· Clear and engaging instructions</li> <li>· Sharing concern for nature between younger and older generations</li> <li>· Volunteer work in parks</li> <li>· Activity to paint/decorate the tiles</li> <li>· Educational aspect</li> </ul>
<p><b>Wishes and needs regarding online materials</b></p>	<ul style="list-style-type: none"> <li>· Know different nature-based activities</li> <li>· Identify nature-based skills</li> <li>· Recognize and spread the benefits of being in contact with natural resources</li> <li>· Recognize different ways of interacting with natural resources</li> <li>· Teach the caregivers to promote healthy habits by interacting with natural environments</li> <li>· Learn how to participate in the different phases of an environmental campaign</li> <li>· Online games</li> <li>· Recipe ideas (using ingredients from nature, such as foraged foods or herb-based dishes, promoting healthy cooking)</li> <li>· Activity guides (step-by-step guides with tips on nature-based activities, such as crafting with natural materials, creating nature art, or building birdhouses)</li> <li>· Video tutorials on how to engage in nature-related activities like gardening, or outdoor exercises</li> <li>· Nature cards (printable and digital flashcards with information about local flora, helping frail older people identify plants and animals)</li> <li>· Quiz about nature</li> <li>· Online materials should be linked to “real nature”</li> <li>· Combinations with outside activities</li> </ul>
<p><b>Fears, concerns, or barriers regarding nature-related activities</b></p>	<ul style="list-style-type: none"> <li>· Not being informed</li> <li>· Physical limitations</li> <li>· Fearing potential accidents or health issues</li> <li>· Lack of accessibility and mobility</li> <li>· Weather barrier</li> </ul>



	<ul style="list-style-type: none"> <li>· Lack of motivation</li> <li>· Lack of confidence</li> <li>· Land and resources (finances) concerns (Social Gardening)</li> <li>· Lack of time</li> <li>· Lack of knowledge about nature</li> <li>· Lack of inspiration and ideas for nature activities</li> <li>· Too much organization (Parking Day)</li> <li>· Lack of adequate training and education</li> <li>· Formal caregivers have demanding workloads</li> <li>· Financial constraints related to the implementation of certain good practices (material, training maintaining facilities costs)</li> </ul>
<p><b>How to overcome those fears?</b></p>	<ul style="list-style-type: none"> <li>· Train the trainer's course on health prevention and well-being in contact with natural environments</li> <li>· Addressing campaigns to public authorities (NGOs)</li> <li>· Achievable goals</li> <li>· Emotional support</li> <li>· Adapting activities to individual needs</li> <li>· Providing positive reinforcement to build motivation and confidence</li> <li>· Fun and interesting activities</li> <li>· Accessible activities for everyone</li> <li>· Implement training programs for formal and informal caregivers</li> <li>· Offer flexible scheduling options for formal caregivers to accommodate nature-related activities or workshops,</li> <li>· Provide financial support or grants for caregivers to cover the costs associated with implementing good practices.</li> <li>· Implement change management strategies to address resistance among caregivers - effective communication, highlighting the benefits of the proposed practices, and involving caregivers in the decision-making process.</li> </ul>
<p><b>Motivational factors for nature-related activities</b></p>	<ul style="list-style-type: none"> <li>· Contact with nature</li> <li>· Socializing and stay in contact with others</li> <li>· Accessibility (public or private transport)</li> <li>· Tailoring activities to individual interests</li> <li>· Providing positive feedback</li> <li>· Offering a variety of experiences</li> <li>· Highlighting therapeutic benefits</li> <li>· Activities should be organized away from the care homes</li> <li>· Activities that don't require a lot of organization</li> <li>· Clear program with good description of the possible activities</li> <li>· Activities should promote social connection</li> <li>· Personalized engagement</li> <li>· Offering transportation support</li> <li>· Ensuring accessibility</li> <li>· Incorporating familiar elements</li> <li>· Feeling safe and relaxed</li> </ul>

<b>Motivational factors for using online materials</b>	<ul style="list-style-type: none"> <li>· Users-friendly interface, intuitive and visuals contents</li> <li>· Game-based activities</li> <li>· IT tools to facilitate communication among participants</li> <li>· Watching movies about nature</li> <li>· Interactive</li> <li>· Combining tangible real activities in nature with online materials</li> <li>· Familiar topics</li> <li>· Technical assistance can boost confidence</li> <li>· VR glasses were extremely interesting</li> </ul>
<b>Green skills</b>	<ul style="list-style-type: none"> <li>· Waste management and recycling</li> <li>· Water management</li> <li>· Sustainable agriculture</li> <li>· Climate change</li> <li>· Sustainable transportation</li> <li>· Environmental (pollution) issues</li> <li>· Desire for more greenery but limited contribution due to physical, mobility, and financial constraints</li> </ul>
<b>Feedbacks</b>	<ul style="list-style-type: none"> <li>· Great experience</li> <li>· Enjoyable participating in new projects</li> <li>· Problem of motivating frail older people</li> <li>· Workshop prompted thinking about nature and related activities</li> <li>· Emphasized the importance of integrating nature into the lives of both young and old</li> <li>· Lack of awareness about municipality-organized activities</li> <li>· Encouraged further development of discussed activities</li> <li>· Very useful and it opened some important fields to be more developed and put into consideration</li> </ul>

## 5. Main findings

### 5.1. Nature related activities

In **Slovenia** most interesting nature topics and activities pointed about were gardens, especially Alzheimer's gardens, a fascination with plants and flowers, along with the desire for a connection to nature, preference for themed walks, environmental education, and the joy derived from being in the sun or natural light. Participants pointed out themed walks in nature, workshops on environmental education with practical experience in the nature, community gardening, herbalism, tending to herb and vegetable gardens. Participants also pointed out their strong desire for social interaction in nature, where they can build social bonds, like group exercises in nature and community gardening.

In the **Netherlands** in the group of frail older people, there is quite a high interest in nature-related activities. Depending on the person's background and physical ability, there is interest in actually being outside and in nature or merely interest in topics related to nature such as enjoying flowers, animals or plants, and learning about nature. The social aspect, being outdoors and/or enjoying flowers/plants together, is important for quite a number of people. Because of physical limitations, often guidance is needed. Active engagement efforts seem to be necessary to involve older people in nature-guided activities, even though there is a lot of interest and positive emotion with the topic. A creative pro-active approach.

In **Spain**, frail older individuals aim to develop their strengths and capacities rather than focusing on limitations, seeking nature-based skills for meaningful contributions to society. Key learning interests include interacting with natural resources, visiting natural spaces, and discovering and engaging with them. Emphasizing traditions, cultural values, and environmental activities, participants stress the importance of recycling, sustainable agriculture, climate change awareness, community health promotion, and volunteering. Promoting healthy habits in natural settings is crucial, with an emphasis on nature-based activities, family time, organic products, and regular exercise. Acquiring nature-based skills, like outdoor workouts, gardening, and volunteering, is essential for community inclusion and overall well-being, while active participation in nature-based campaigns, addressing waste management, sustainable agriculture, climate change, and community health, is highly endorsed.

In **Italy**, participants showed great interest in flowers, fruits, vegetables and plants. Many of them were very knowledgeable about them, as most of them live in rural areas of Emilia Romagna and have a vegetable garden or orchard at home. The products of nature stimulated them to share meaningful memories of their childhood and old folk traditions. The products of nature provided a valuable key to accessing memories of the past by activating associated emotions along with them. Telling and passing on cultural traditions allowed them to express themselves, to feel competent and valued. Participants were very interested in discussing traditional recipes and natural remedies for the promotion of physical health using the products of nature such as plants, fruits and vegetables. One of the participants' favourite activities is gardening; many of them grew up in farming families with a long tradition of cultivating and caring for nature's produce.

## 5.2. Online materials

Participants in **Slovenia** were generally not enthusiastic about online materials, but find them useful for those unable to go into nature. They prefer materials that are clear, user-friendly, easy to understand, and visually appealing. Technical characteristics should include simplicity and attractiveness, with a preference for group use. Visual elements, such as graphics and illustrations, should be a primary focus.

In the **Netherlands** many older people do not consider themselves very clever when it comes to online materials in general. Online materials are also seen as not stimulating social interaction which is an important factor for many. This could lead to the wish to make online materials interactive/possible to use together with others. Online games about nature seems like an option, provided that it is not too complicated.

Online resources in **Spain** are considered important to learn nature-based skills. In this regard, is important to provide them with digital accessibility resources such as users-friendly interface, intuitive resources and games and give users the opportunity to socialize.

Many participants in **Italy** were unfamiliar with the use of online resources, preferring face-to-face and group activities where they have the opportunity to socialise, meet new people and have a coffee together. They also prefer printed paper to the use of online resources.

### **Some specific ideas participants had for online materials:**

#### *SLOVENIA:*

- Virtual reality experiences (e.g., VR glasses with 360-degree nature videos)
- Courses, especially when combined with hands-on activities or outdoor experiences
- Games and quizzes related to nature topics – learning through gamification
- Simple and clear videos or pictures
- Incorporating familiar topics
- Offering technical assistance
- Manuals that offer insights into gardening, providing instructions on how to nurture plants and create beautiful outdoor spaces.
- Information about nature events in local community
- Recipe ideas
- Nature cards about information about local flora and animals

#### *NETHERLANDS:*

- Online games about nature that it can be used together with others

#### *SPAIN:*

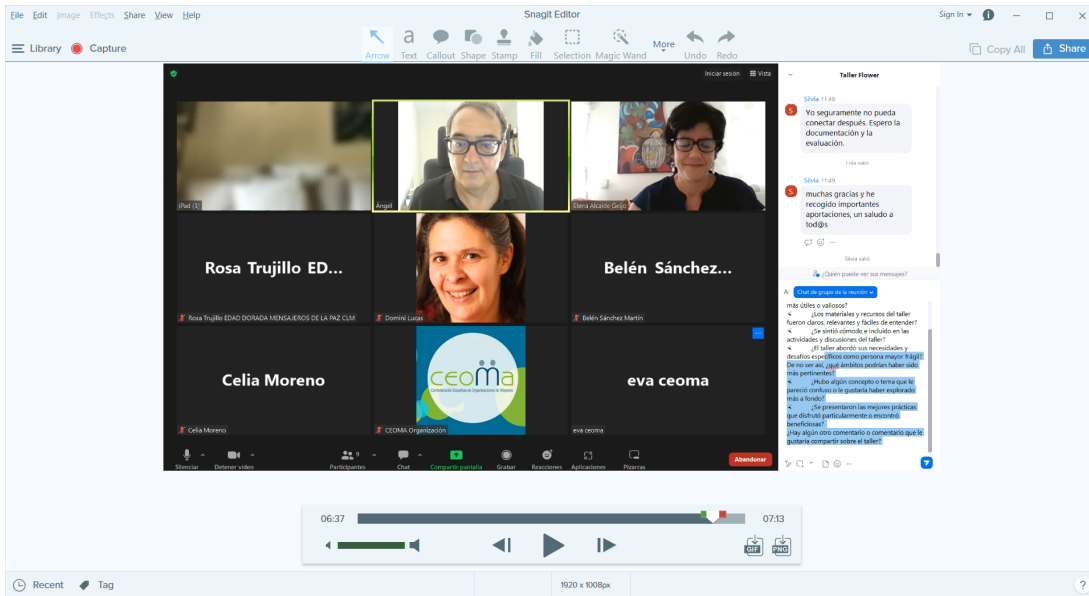
- Online games about discovering and naming things in nature, learning nature skills (grow plants, recycling materials, recognizing objects in nature such as leaves, food, stones, etc.).
- Watching videos of animals, landscapes, nature protection, traditions and discussing them.

#### *ITALY:*

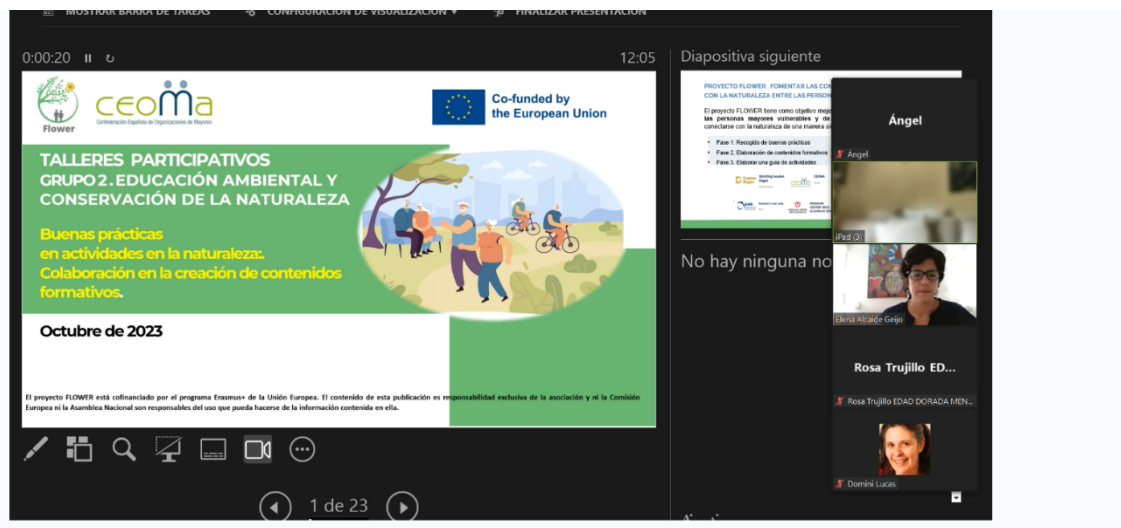
- Flashcards or information booklets that can then be printed by those unfamiliar with accessing online resources.

## 6. Annexes

Photos from Spain Co-creation sessions conducted by CEOMA.







Photos from Slovenia Co-creation sessions conducted by Development Centre of the Heart of Slovenia.













