



EMPOWERING OLDER ADULTS TO APPLY AFFORDABLE
ECO- AND AGE-FRIENDLY SOLUTIONS TO AGE IN PLACE

AFECO

Overall Assessment Report

Synthesis of the results of the interviews and focus group discussions



WROCLAW UNIVERSITY
OF ENVIRONMENTAL
AND LIFE SCIENCES



Co-funded by
the European Union

The AFECO project is co-funded by the European Union's Erasmus + KA220-ADU – Cooperation partnerships in adult education programme under grant agreement no. 2022-1-NL01-KA220-ADU-000086242. The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

About this publication

This report summarises the results of the interviews and focus group discussions in the project countries Greece, Germany, the Netherlands, Portugal, Poland and Italy, within the Erasmus+ project AFECO – Empowering older adults to apply affordable eco- and age-friendly solutions to age in place (cooperation partnership in adult education, project number: 2022-1 NL01-KA220-ADU-000086242). More information is available at <https://afeco.eu/>.

Authors

Marcel Neumann, Jesper Schulze, Jana Eckert
ISIS - Institut für Soziale Infrastruktur gGmbH



Contributors

Lisa Bürkle
ISIS - Institut für Soziale Infrastruktur gGmbH



Inês Saavedra
Carina Dantas
SHINE 2Europe



Sylvia Bergh
Hague University of Applied Sciences



Copyright (c) 2023 AFECO Consortium



This publication is licensed under a Creative Commons Attribution-ShareAlike 4.0 (CC BY-SA 4.0)

TABLE OF CONTENTS

1. Introduction	4
2. Methodology	4
3. Demographic data of the participants.....	6
3.1 Demographics of interviewees.....	6
3.2 Demographics of focus group participants	13
4. Results of the interviews	15
4.1 Self-assessment of knowledge, skills and barriers	15
4.2 Self-assessment of learning needs	16
4.3 Learning preferences of interviewees.....	17
5. Results of the focus groups	19
5.1 Examples and assessment of impact of age-friendly solutions.....	19
5.2 Examples and assessment of impact of eco-friendly solutions in different areas	22
5.3 The role of costs in age- and eco-friendly interventions.....	24
5.4 Assessment of learning needs of the caregivers and experts	25
5.5 Synergies between age- and eco-friendly principles mentioned by the caregivers and experts.....	27
6. Conclusions	28
6.1 Conclusions for the development of training of older people	28
6.2 Conclusions for the development of training of caregivers and social workers	29
ANNEX 1: Questionnaire characteristics and learning preferences	30
ANNEX 2: Frequencies of characteristics of the interviewees	32
ANNEX 3: Age- and eco-friendly solutions	36

1. Introduction

This report summarises the results of the interviews and focus group discussions in the project countries Greece, Germany, the Netherlands, Portugal, Poland and Italy. The aim of the AFECO survey was to involve persons by providing first-hand experiences of older adults (65 years of age or older) living independently (fully autonomous or in need of care, but not living in residential homes) on their approach towards age-friendly and eco-friendly environments. Further, health and social care professionals, such as informal caregivers (spouses, children, friends, neighbours), formal caregivers (home care workers, district nursing) or social workers were included in focus groups on the potential and possible impact of applying age- and eco-friendly principles to identify the learning needs of this target group.

AFECO used interviews and focus group discussions in the data collection phase and thus resorts to qualitative methods. The focus of the survey in this Erasmus+ project was to identify the knowledge and needs of both target group of learners. This approach was used to create an appropriate learning offer for the target groups.

The aim of the AFECO project is to promote the implementation of age-friendly and eco-friendly solutions in the physical environment with the help of an appropriate learning offer. The focus of the interviews and focus group discussions was on these thematic areas. The interviews were conducted in June and July 2023.

2. Methodology

The interviews were conducted in the national language of the project partners. It was decided in advance that both individual and group interviews could be conducted and that they could be conducted online or by telephone. Group discussions were considered particularly appropriate for this topic, as participants can inspire each other, which greatly facilitates the understanding of age- and environment-friendly approaches.

The interviewees were approached via existing networks. No specifications were made in advance for the selection of participants with regard to categories such as gender, income and educational level.

■ Poland ■ Germany ■ The Netherlands ■ Italy ■ Portugal ■ Greece

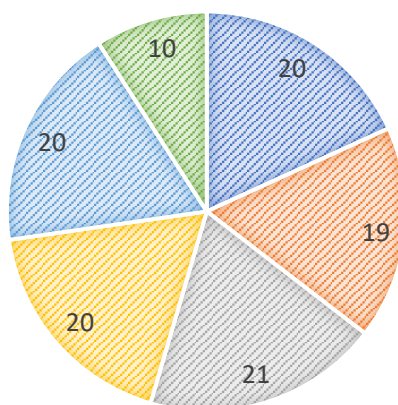


Figure 1. Numbers of interviewees per country

The aim was to involve 20 people per country. This was achieved in Portugal, Italy and Poland. In Germany (19) and Greece (10) the target was not reached, whereas in the Netherlands it was exceeded (21). In total, 110 people were interviewed during the interview phase, either face-to-face, by telephone or by video call.

The interviews were conducted in two stages with the following guiding questions:

The first stage consisted of a basic introduction of the interview participants to the age and environmental context and to the relevant tools/methods, as well as providing some examples of how these can be integrated into the everyday reality of people in their third age. The interviewer was asked to make sure that the first phase did not exceed 30 minutes, as it is important to leave enough time for the second phase.

- What attributes should an age-friendly home and community primarily offer and why?
- Do you use any kind of age-friendly solution in your everyday life, or have you used any kind of intervention, service, etc.?
- Which other age-friendly solutions do you know that have not been mentioned before?
- Do you apply any kind of eco-friendly solution in your everyday life?
- Which eco-friendly solutions do you know that have not been mentioned before?

The second stage aimed at identifying the learning needs of the participants to find out what they need to know and what their individual approach is, in terms of the different areas and situations where age and environment friendly solutions could be applied, their willingness and ability to invest in an age and environment friendly environment (efforts, time, money, etc.), any support structures they have.

- Would you like to apply any of the age-friendly solutions mentioned before?
 - a. Which of these are of particular interest to you?
 - b. What could hinder you from doing so?
 - c. What would you like to know more about?
 - d. Which solutions are not interesting for you? Why?
- Would you like to apply any of the eco-friendly solutions mentioned before?
 - a. Which of these are of particular interest to you?
 - b. What could hinder you from doing so?
 - c. What would you like to know more about?
 - d. Which solutions are not interesting for you? Why?

In addition, the demographic characteristics and learning preferences of the respondents were collected using printed questionnaires (see [Annex 1](#)).

Methodology focus groups

For the focus groups, health and social care professionals, namely (in)formal carers and social workers, were approached to participate. Other professional profiles with experience and expertise in promoting and developing age-friendly and eco-friendly environments were also invited to contribute their specific knowledge to the group discussions.

In order to recruit the most representative participants, organisations involved in the care of older people, social and health care organisations, councils or associations of older people, research institutes on age-friendly and eco-friendly environments, volunteer organisations as well as construction engineers specialised in age-friendly and eco-friendly environments were

approached (for details on the professional background of the experts involved, see [chapter 3.2](#)). The 13 focus groups involved a total of 57 experts and carers and were conducted face-to-face, by video call or in a hybrid format. Individual interviews were also conducted when organisational arrangements prevented the intended number of participants from being included in group interviews (4 individuals each in PT and NL).

The focus groups with experts and carers were conducted using the following guiding questions:

- How do you assess your own competencies regarding age-friendly principles?
 - How do you assess your own competencies regarding eco-friendly principles?
 - Please describe any age-friendly methods, tools or interventions that you have used in your work or that you consider to be helpful. Please, also explain why.
 - How do you assess the impact of the implementation of the age-friendly solutions previously mentioned on the quality of life of older people?
 - In the following areas [Prevention / Intervention], which do you consider most important?
 - About which age-friendly solutions would you like to know more about? Why?
 - Please describe any eco-friendly methods, tools or interventions that you have used in your work or that you consider to be helpful.
 - How do you assess the impact of the implementation of the eco-friendly solutions previously mentioned on the quality of life of older people?
 - About which eco-friendly solutions would you like to know more about? Why?
 - How age-friendly principles can be combined with eco-friendly principles according to your experience?
 - What role do you think the costs play in the implementation of age- and eco-friendly solutions into the home environments?
- [Optional, if appropriate to the profile of the participants]
- In your experience, what is particularly important for older people to learn so that they can implement age- and eco-friendly solutions?

3. Demographic data of the participants

3.1 Demographics of interviewees

This section provides a descriptive overview of the demographic characteristics of the respondents. The focus is on the proportions of each characteristic in the different countries. The frequencies and total proportions of all respondents for each characteristic are given in [Annex 2](#).

All proportions presented below are based on valid responses from the interviewees. In the first interview group in Germany, the willingness to complete the questionnaire with questions on demographic characteristics was rather low, resulting in a rather high proportion of missing values in the figures for Germany.

Gender

Among the 110 older people who have been interviewed within the interview phase, 69.9% of the participants were female and 30.1% male.

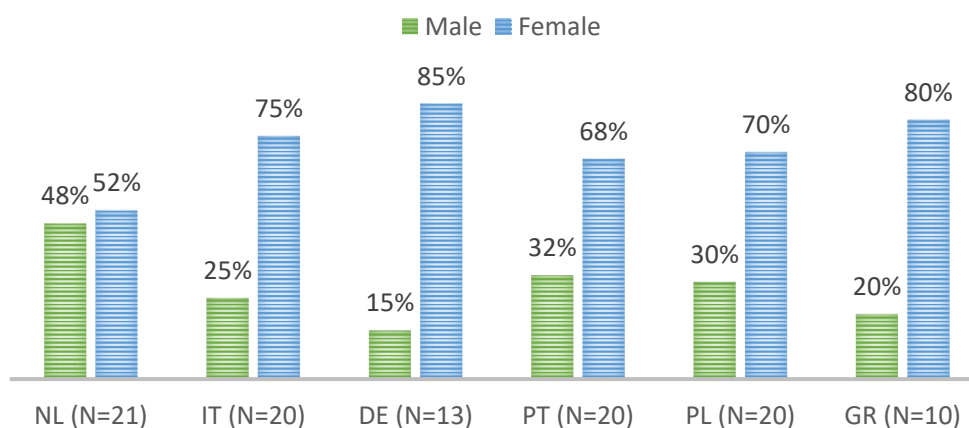


Figure 2. Percentage of interviewees by gender group per country

Age

In total, 60 (57.7%) of the interviewed persons are aged between 65 and 74 years. The second most common age group is 75-84 (26%), followed by 85 and over (12.5%). Only 4 interviewees (3.8%) are younger than 65. The proportions of interviewees by age group are shown in the following graph for each partner country.

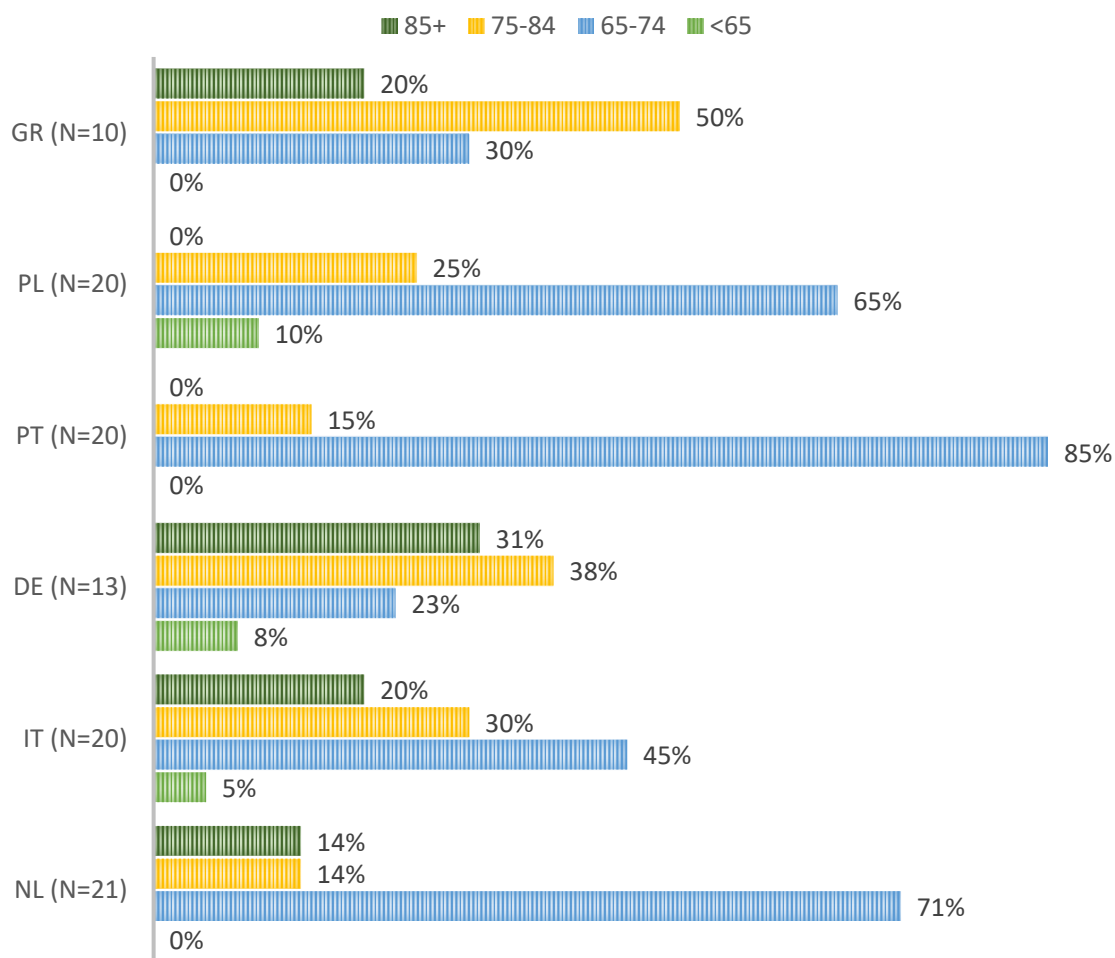


Figure 3. Percentage of interviewees by age group per country

Education

In the context of developing an educational offer, especially when considering the learning needs and preferences of the respondents, it is important to take into account the educational level of the interviewees. Most interviewees (36.5%) have higher education, followed by secondary education (26.9%) and vocational training (21.2%). There were no interviewees with no educational qualifications.

The distribution of interviewees' highest level of education in each country is shown in the following graph.

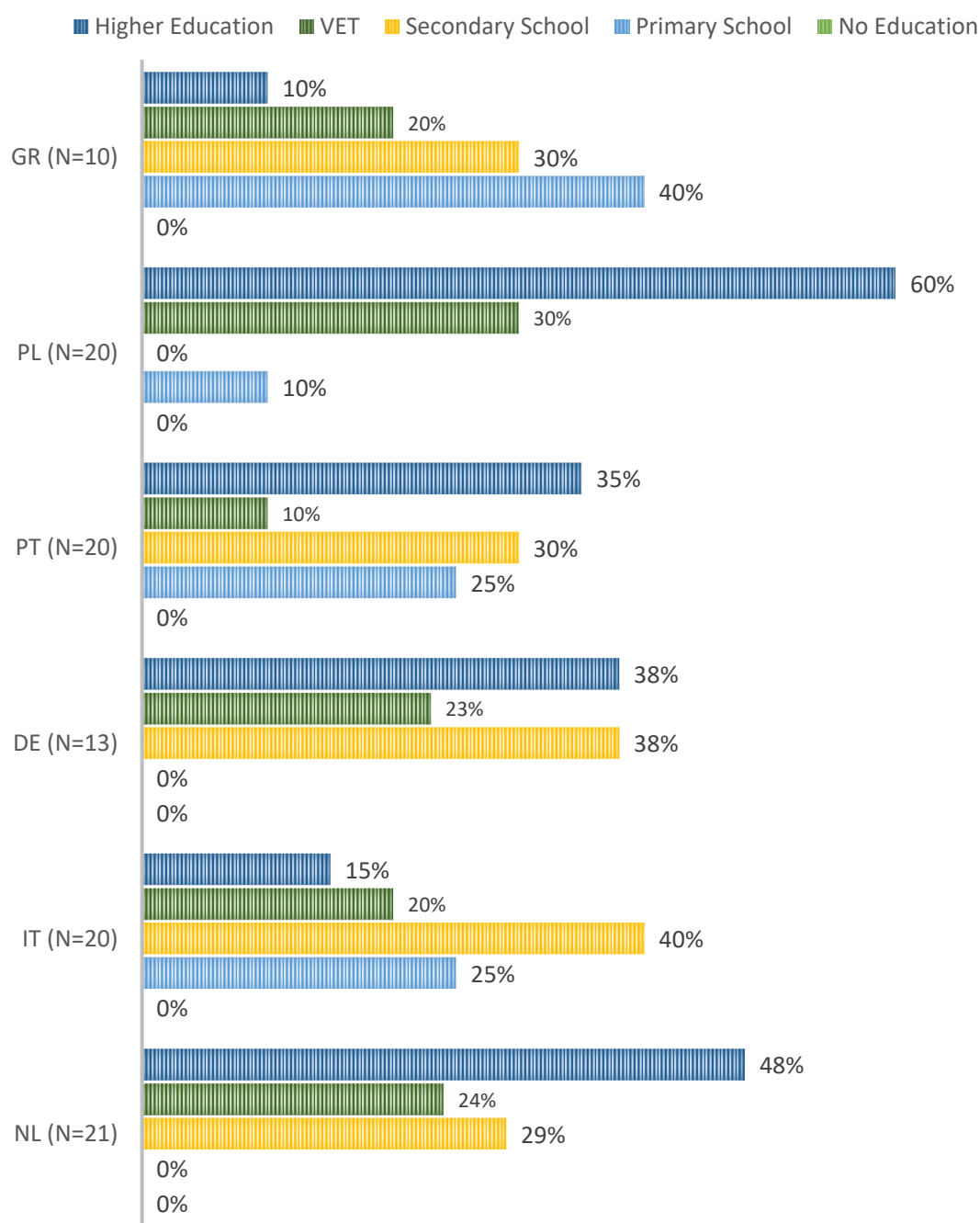


Figure 4. Percentage of interviewees by highest level of education per country

Professional background

In addition to the level of education, the professional background of the respondents is of interest. The different professions are illustrated in figure 5, where the most frequently mentioned professions are larger than the less frequently mentioned professions.

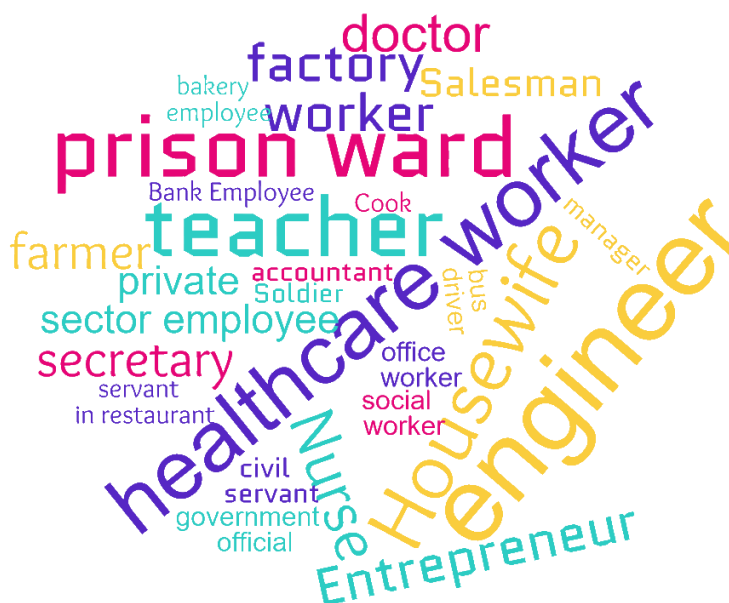


Figure 5. Professional background of the interviewees (before retirement)

Independent Living

The AFECD project aims to provide learning opportunities for older people living independently as well as for those in need of care. Therefore, the situation regarding care needs is important when identifying the learning needs of the target group of older adults. Overall, only 6% of the interviewees had care needs. The figure below shows that almost all of them were from Greece, due to the home care service provided by the Greek project partner.

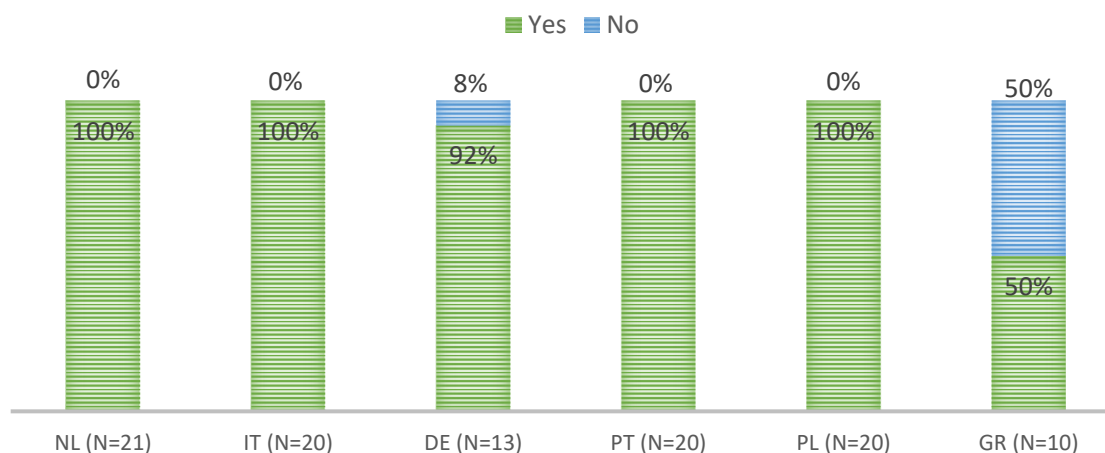


Figure 6. Percentage of interviewees by independent living situation per country

Ownership

As the existence of home ownership - whether from a legal or financial perspective - is a crucial factor in the implementation of age- and environmentally-friendly solutions, respondents were also asked to provide information about this. Overall, around 60% of respondents live in their own home, while 40% rent. The figure below shows that the proportions vary considerably between countries. These differences in the sample reflect the different situations in the countries, namely Greece and Portugal have high shares of people living in houses and flats they own.

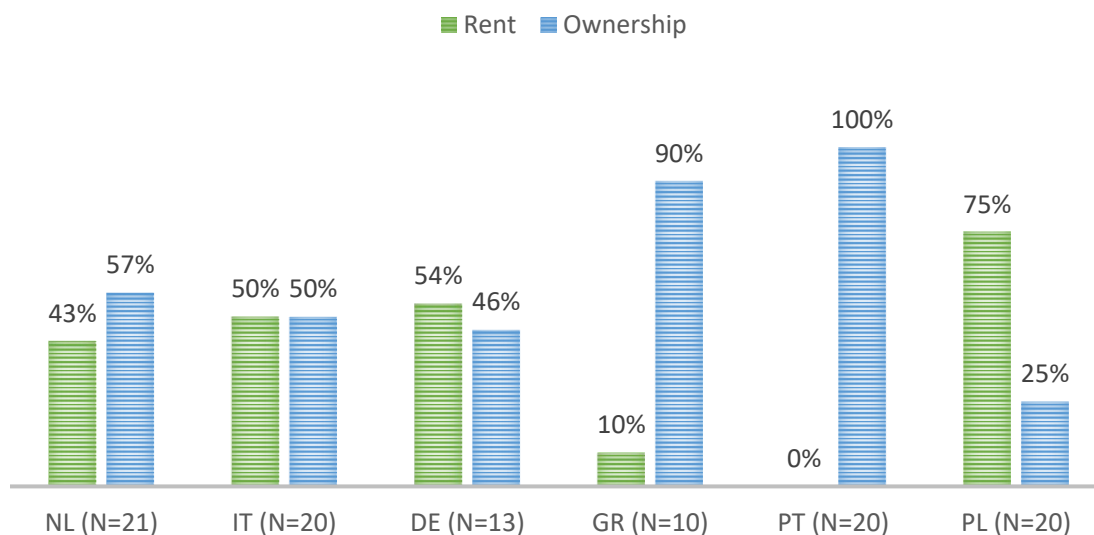


Figure 7. Percentage of interviewees by house/flat ownership per country

Household size

To get an even better picture of the living situation of the respondents, we also asked how many people (including the respondents themselves) live in their own flat or house. Overall, just over half of respondents live in a two-person household (55%), 35% live alone and 10% live with more than one other person. Again, there are significant differences between respondents in different countries (see figure 8): In Italy, most of the interviewees live alone, both proportionally and in absolute terms, followed by interviewees in the Netherlands.

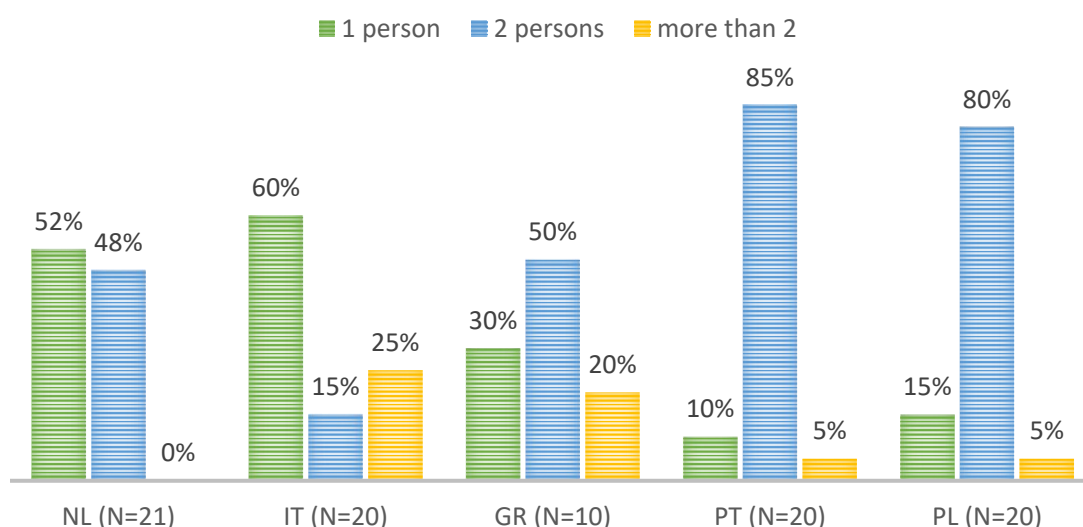


Figure 8. Percentage of interviewees by household size per country¹

Income perception

Based on the assumption that affordability plays an important role in the implementation of age- and eco-friendly solutions, the financial situation and the subjectively perceived situation were also of interest in the AFECO survey. The financial situation was assessed using two questions on a 5-point scale: One question related to whether basic needs were covered, and the second question was a more general one about financial latitude, indicating the extent to which one can live well on one's income.

The responses to the two questions are not significantly different. 16 respondents were more likely to agree with the first question than the second, with three respondents saying they could rather cover their basic needs than live well on their income. Overall, the majority of respondents say that their income covers their basic needs - around 59% agree or tend to agree with this statement. In Germany, Greece and Italy this applies to around half of respondents, while in Poland it applies to less than half (see figures 9 and 10 and tables 7 and 8 in [Annex 2](#)).

¹ The data is not available for interviewees in Germany.

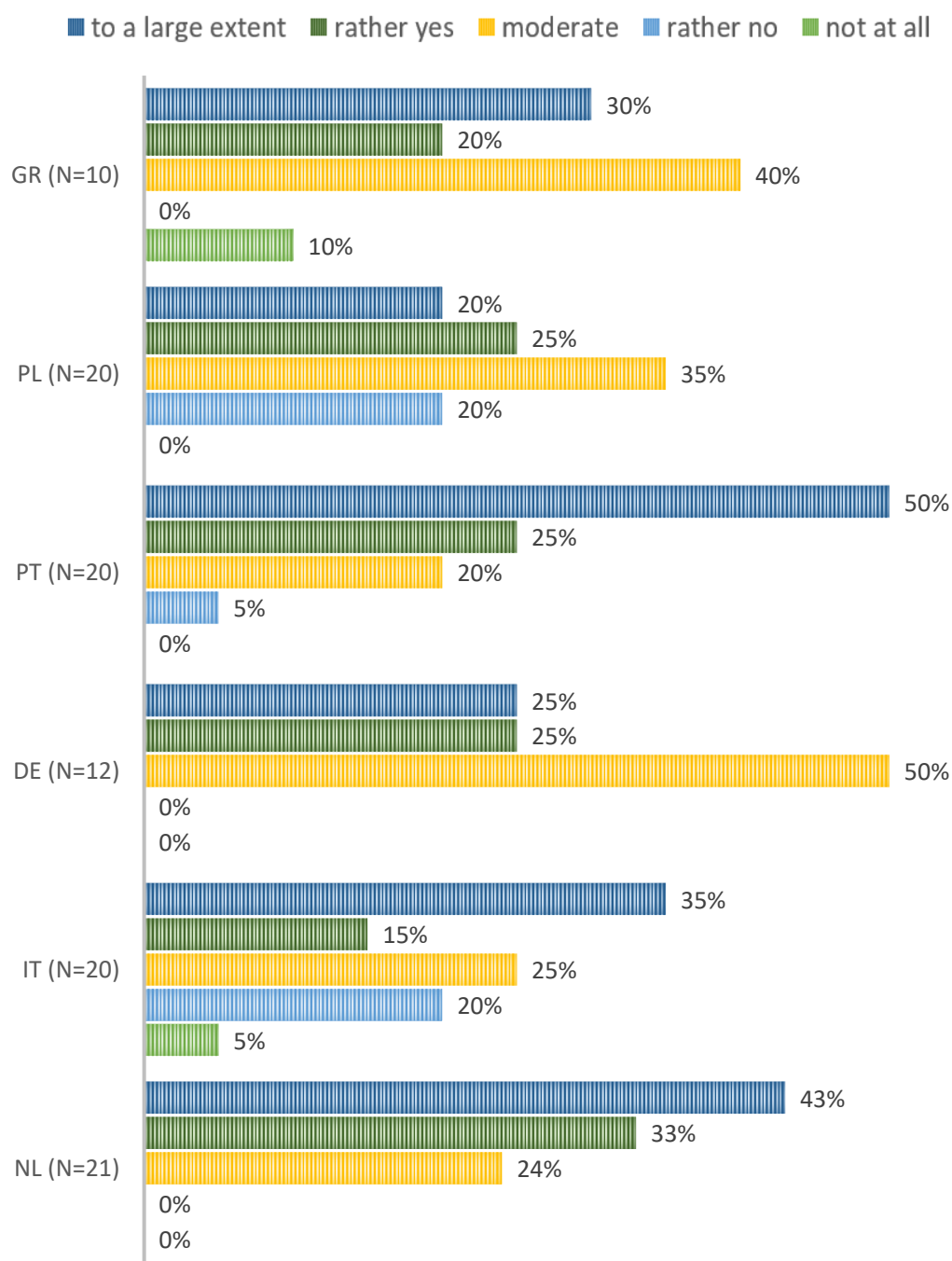


Figure 9. Percentage of interviewees by income perception (coverage of basic needs) per country

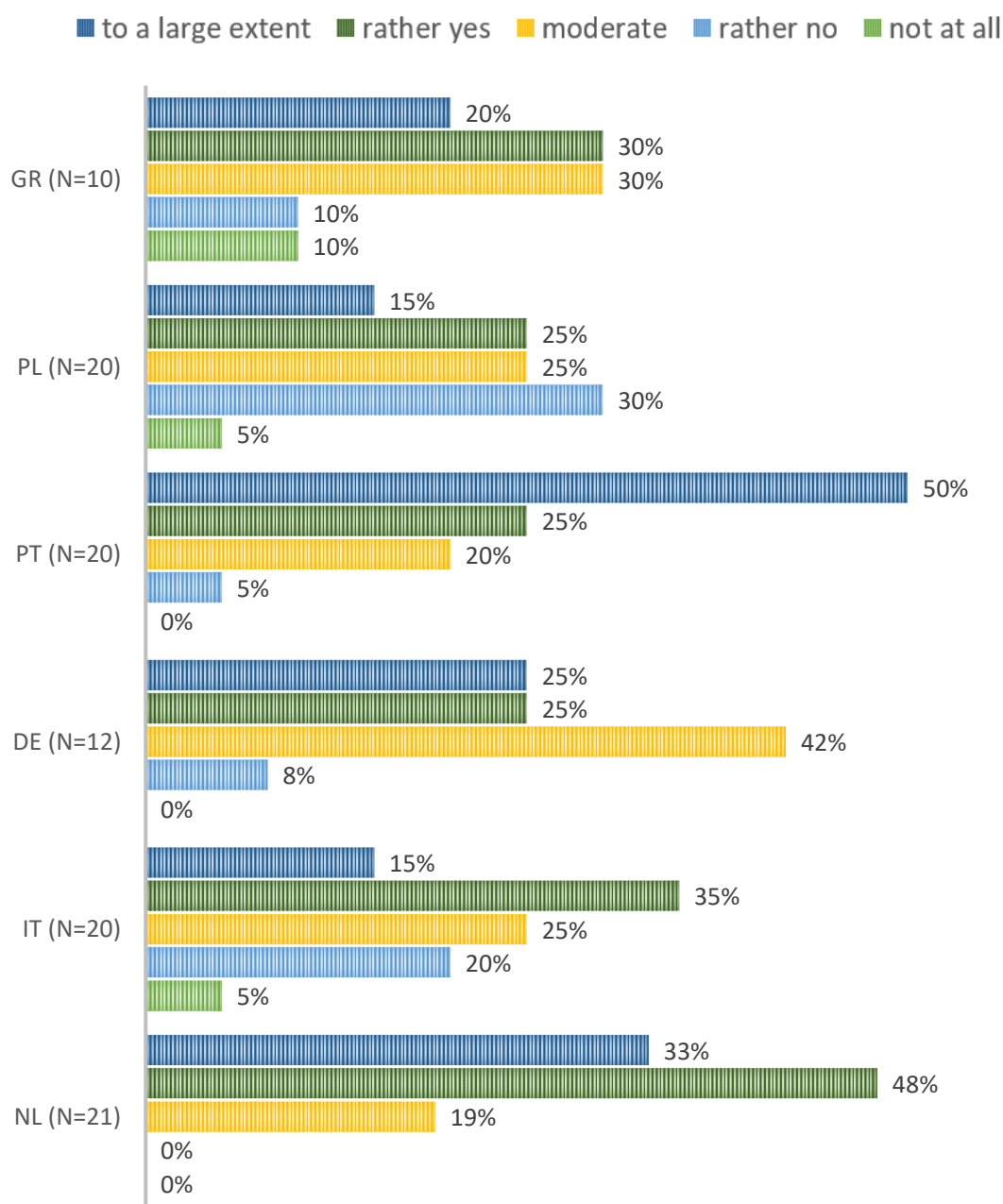


Figure 10. Percentage of interviewees by income perception (living well on income) per country

3.2 Demographics of focus group participants

Gender

In total, 60 caregiver and experts participated in the focus groups. Three quarters of the focus group participants are female, while one in four participants is male.

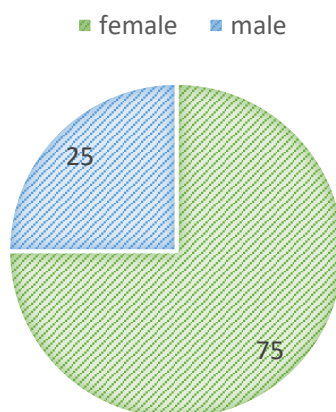


Figure 11. Percentage of focus group participants by gender

Professional roles

The focus groups revealed that many different relevant stakeholders of the AFECD project were identified. In summary, almost all relevant actors within the caring networks around older adults were involved in the focus groups. The groups included nurses and other professional carers, doctors, psychologists, psychotherapists and social workers. The sample furthermore included representatives of various social organisations, adult educators, researchers, experts in age- or eco-friendly environments. In the figure below, professional roles that were represented more frequently are shown larger than others in the word cloud above. Some participants who also contributed with their experience as informal carers are represented in the figure with their professional role.

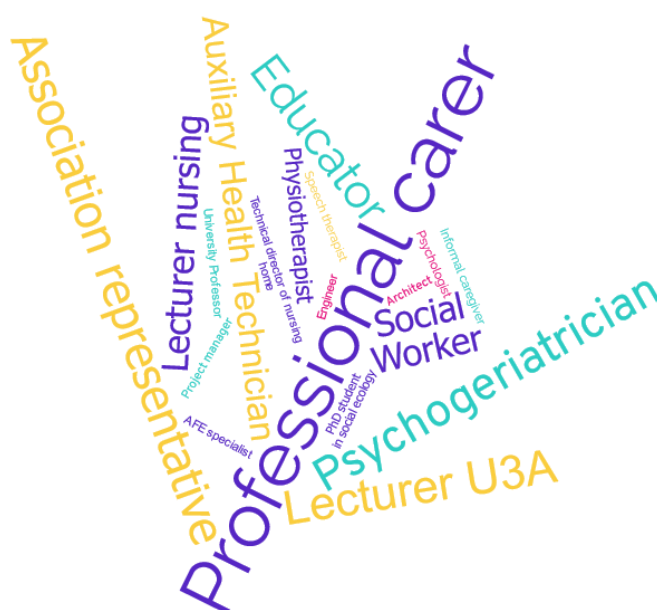


Figure 12. Role/professional background of focus group participants

4. Results of the interviews

In the interviews, respondents mentioned a number of age- and eco-friendly solutions (for details, see annex). The interviewees were asked to report which solutions they were aware of. This served as a way of introducing the interviewees to the topic and, in the case of group interviews, as a way of inspiring each other. The solutions and ideas, which included a range of policy, infrastructure and service aspirations, went well beyond the learning content to be developed in the AFECO project. While these broader ideas are of great value in sensitising respondents to age- and eco-friendly principles, they are outside the specific scope of this report, which focuses on assessing the identification of learning needs in relation to the core objectives of the project. Therefore, the following focuses primarily on findings that are directly related to the intended objectives of the project.

4.1 Self-assessment of knowledge, skills and barriers

The interviews conducted in each country provide valuable insights into older adults' knowledge, preferences and challenges in relation to age- and eco-friendly principles. As the assessment of possible barriers to the implementation of age- and eco-friendly solutions is also relevant for the design of learning offers for this target group, these are included in the following summary of the interview results as well. While there are certain commonalities, each country has unique characteristics in terms of awareness, practices and barriers.

In Italy, although the interviewees were not familiar with the formal WHO definition of age-friendly environments, they offered practical suggestions based on their experiences. They emphasised the importance of living close to essential services without the need for transport. Adoption of technology has been limited, with barriers identified as education, lack of tailored solutions and resistance among older adults. The community dimension emerged as a crucial factor for socialisation and combating loneliness.

In the Netherlands, the interviewees showed varying levels of awareness of age- and eco-friendly solutions. Some had implemented measures such as LED lighting, while others wanted more information. A common concern was a lack of knowledge about where to find information or who to contact, indicating a need for accessible resources.

In Portugal there were different attitudes among the interviewees. While most were aware of age-friendly measures, the level of interest and implementation varied. Financial considerations influenced the adoption of eco-friendly practices, with waste sorting being a common environmental effort. The importance of age- and eco-friendly measures was recognised, but the level of commitment depended on individual motivations and existing practices.

In Greece, participants expressed an eagerness to learn more about age- and eco-friendly solutions, with practical knowledge gaps identified. The lack of centralised institutional information was highlighted, indicating a need for guidance and advice. While basic eco-friendly practices were in place, financial constraints limited more advanced initiatives.

The German interviewees showed a mixed level of awareness of age- and eco-friendly solutions. Some were already familiar with existing measures such as outreach services and climate-friendly practices, while others were not well informed. Challenges included a lack of affordable housing, limited influence as tenants on green infrastructure and financial barriers to green mobility.

Poland highlighted several barriers to the use of age- and eco-friendly solutions. These ranged from lack of time, skills and knowledge to difficulties in finding information and funding sources. Similar challenges were reported for both age- and eco-friendly solutions, with financial considerations and knowledge gaps being recurring themes.

4.2 Self-assessment of learning needs

The learning needs in terms of skills and content for implementing eco- and age-friendly solutions identified in the interviews in the different countries also reveal both similarities and differences between the interviewees.

In Greece, a focus on prevention, rehabilitation and improved care emerged as key priorities for older adults. Interviewees expressed a strong interest in empowerment, highlighting the importance of socialisation and community as essential elements in changing their lifestyles. Accessibility in community settings, age-friendly transport solutions and energy-saving practices were also prominent areas of interest. Autonomy was highlighted as a key learning need, with a call for technology solutions that enhance safety, mobility and overall independence. Digital literacy was recognised as a related aspect, highlighting the intersection of technology and ageing.

Similarly, in Germany, interviewees highlighted the importance of learning about energy saving principles, including the use of (plug-in) solar panels. The need for information on housing advice, neighbourhood support, Ambient Assisted Living (AAL) solutions and social gardening was also expressed. Awareness gaps regarding age-friendly solutions such as AAL were evident, indicating a need for accessible information. The desire to know which institutions, associations or individuals to contact for age-friendly adaptations highlighted the importance of connecting older adults with relevant resources.

Interviewees in Portugal emphasised the relevance of learning content directly applicable to their daily lives, with a strong emphasis on practical applications. The different learning needs of individuals were evident, ranging from basic knowledge to more advanced and in-depth information. Interest in topics such as home comfort, preventing falls, buying solar panels together and maximising the use of natural resources reflected a wide range of solutions of interest. The role of learning as an opportunity for socialising was also recognised.

In Italy, autonomous older adults did not see a need for age-friendly solutions in their daily lives, as some had already implemented technological solutions or opted for smaller living spaces. The importance of educating younger generations about eco-friendly habits was highlighted. Notably, respondents in Italy did not identify themselves as 'older adults', emphasising their active lifestyles and distancing themselves from the term 'age-friendly'.

A similar observation was made in the Netherlands, at least for more educated older adults: they often don't perceive themselves as 'older adults' and therefore don't think about age-friendly solutions. Regarding the learning needs of the participants in the Netherlands, different levels of interest and learning needs were observed in age-friendly and eco-friendly areas. Some respondents were looking for information on cost-effective solutions, while others were curious about advanced eco-friendly technologies such as heat pumps. The desire for knowledge about sustainable and age-friendly solutions underlined the need for accessible educational resources and forums.

In Poland, specific age-friendly solutions of interest included online services, outdoor activities, age-friendly travel options and access to free medicines. Learning needs related to eco-friendly solutions included reducing the use of paper and plastic, using solar panels, gardening and various other sustainable practices. The desire for easy access to knowledge, alternative solutions and information on grants showed a wide range of learning needs among interviewees.

Despite differences in emphasis and priorities between countries, common themes emerged such as the importance of socialisation, community involvement, energy saving practices and the desire for accessible information. The need for education on both age- and eco-friendly solutions was consistent, highlighting the universality of these concerns among older adults across different cultural contexts. Differences in older adults' self-perceptions, particularly in Italy and the Netherlands, underlined the complexity of addressing age-related issues and the need for tailored approaches to meet different learning needs.

4.3 Learning preferences of interviewees

Further, the interview results provide valuable insights into the learning preferences of interviewees from different countries, shedding light on motivational aspects, preferred learning methods, support required, materials needed, learning preferences, tracking progress, preferred learning times and online experiences. While there are commonalities, there are also notable differences between the responses of respondents in Greece, Germany, Portugal, Italy, the Netherlands and Poland. The most common preferences are summarised below. It should be emphasised that preferences also varied between interviewees within countries.

Motivational aspects

In all countries, curiosity and interest in a subject were often cited as important motivators for learning. The desire to have fun, to address emotions, and to quickly manifest learning content were additional motivators mentioned by interviewees. This universal appreciation of curiosity reflects a shared intrinsic motivation for learning.

Preferred learning methods

In Greece, interviewees expressed a positive inclination towards e-learning platforms. In Germany, a variety of learning preferences were observed, including visual, auditory and written content. In Portugal, reading materials were preferred by many, while practical activities and exercises were considered beneficial. Italy emphasised a mix of practical and theoretical learning. The interviewees in the Netherlands emphasised practical cases, hands-on experience and a genuine interest in specific topics. Poland showed a preference for reading, watching and working in groups. These differences reflect different cultural and individual preferences in learning methods.

Support needed

Interviewees from all countries recognised the importance of mentoring and support. In Greece, interviewees valued mentorship because of the mentor's personality, patience and guidance when needed. German interviewees mentioned support in using digital tools, outreach services and a supportive learning environment. Portuguese interviewees preferred support from well-trained trainers and a more personalised service. Also in Italy, interviewees preferred to learn from someone with more experience in the topics. The interviewees in the Netherlands

emphasised technical support, social learning and solitude. Polish respondents needed documentation and someone to demonstrate more than just IT skills or explanations. These different support needs highlight the individualised nature of learning preferences.

Preferred materials

Material preferences varied between countries. In Greece, interviewees preferred a well-structured and progressive approach with graphical interfaces, pictures and interactive content. German respondents preferred written or printed learning materials, while some mentioned digital tools. Portuguese interviewees mentioned a variety of materials, including reading materials, computers, videos, mobile phones, audio and Internet access. Italian respondents preferred a mix of printed materials and digital tools. Dutch respondents had a balanced preference for online and printed materials. Polish interviewees expressed a need for written materials and videos. These differences underline the importance of offering a variety of materials to meet different preferences.

Preferences for learning alone or in a group

In Greece there was a variety of responses, but group learning seemed to be more favourable. In Portugal, more interviewees preferred learning with others. Also, in Italy the majority did not like learning alone. In the Netherlands, in Poland and in Germany there was a balanced preference for learning alone or with others. These differences reflect individual differences in preferred learning environments.

Tracking progress

Interviewees in different countries preferred different methods for tracking progress. In Germany, some preferred conversations, while others mentioned diagrams. In Portugal, interviewees preferred qualitative and personalised assessment. Italian interviewees emphasised practical application and understanding of progress. Dutch interviewees gave vague answers, with one expressing a dislike of exams. Polish interviewees valued positive feedback, application in real life and saving time and money. These differences highlight the need for flexible assessment methods.

Preferred learning times

Preferences for learning times varied, with interviewees from all countries expressing different preferences for learning in the morning, afternoon or evening. Some did not have a specific time preference. These differences are influenced by individual routines.

Preferred online experiences

Online experiences varied. In Greece, the interviewees in general were positively inclined to learn through an e-learning platform. In Germany, interviewees had different preferences, including online sports training and lectures with video conferencing. In Portugal, some preferred Facebook groups, while others mentioned Moodle and video calls. Italian interviewees had limited interest in online courses. The Netherlands favoured webinars, interactive features and partial assignments. Polish interviewees tended to use Google and YouTube. Differences in online preferences may be due to different levels of familiarity and comfort with digital platforms.

In conclusion, while there are common preferences, such as curiosity-driven motivation, there are notable differences influenced by cultural contexts and individual preferences. Understanding

these differences is essential for creating inclusive and effective learning programmes that meet the diverse needs of interviewees from different countries.

5. Results of the focus groups

5.1 Examples and assessment of impact of age-friendly solutions

Focus group participants provided information on what they considered to be helpful and useful age-friendly solutions and were asked to assess these in terms of their impact on the quality of life of older people. The collective insights of the focus group participants therefore provide a nuanced understanding of age-friendly solutions and their impact on the quality of life of older people. The subjects of these focus groups, made up of experts and carers, collectively shed light on different facets of housing, health, technology and community initiatives. Examining their assessments reveals both shared perspectives and distinct considerations.

Greek focus group participants emphasised a holistic approach to improving the quality of life of older people, recognising the interconnectedness of housing, health, technology and community. Caregivers in Greece emphasised the importance of creating environments that are free of obstacles, implementing anti-slip measures and ensuring proper ventilation. The focus went beyond physical aspects to general health, with discussions centred on the importance of good ventilation, comfortable sleeping arrangements and the use of technology for medication reminders and vital signs monitoring. Age-friendly technology was recognised as beneficial, with participants expressing a need for simple, user-friendly devices. The lack of a common regulatory framework for age-friendly housing was also noted, and the importance of financial schemes and personalised advice for older people was emphasised.

In Germany, participants recognised the importance of the community in promoting age-friendly environments. The focus group identified relationships and communication as overarching categories crucial to the quality of life of older people. Local community involvement was seen as essential, with suggestions for facilitators to bring people together, neighbourhood help and age-friendly technological solutions. Emphasis was placed on improving pavements and increasing social activities, recognising the importance of social contact for overall health. Technological interventions in health care were discussed, including virtual consultations, remote health monitoring and devices such as smart watches and fitness trackers. In the area of housing, intergenerational projects and barrier-free living environments were highlighted, with an understanding of the financial challenges associated with such initiatives. Concrete health solutions included care apps, home emergency services and food delivery. The role of care support points and senior citizens' offices in providing social contact and information was highlighted.

In Portugal, experts and carers discussed practical solutions for age-friendly living, focusing on housing, community, technology and health. Housing recommendations included removing carpets, ensuring adequate lighting and installing handrails to prevent falls. Challenges in accessing qualified carers were highlighted, drawing attention to the limited provision of specialised care services for older people. Age-friendly technology solutions were identified, such as teleconsultation services, video surveillance and wearable technology. The need for user-friendly technology for older adults was emphasised, while recognising potential barriers to adoption. At the community level, discussions centred on the development of sidewalks, family and community support, and the involvement of different stakeholders such as municipalities and

neighbourhood associations to address the challenges faced by older people ageing in place. The importance of socialisation to combat social isolation and initiatives such as free exercise classes for older people were also highlighted.

In Italy, participants discussed barriers to age-friendly housing and proposed practical solutions, focusing on home, health, technology and community. Challenges included bureaucratic processes and a lack of long-term planning, which hindered structural changes in buildings. Solutions included home automation, lighting, shared spaces and co-housing, with a focus on simple, low-cost interventions. The relationship between health and technology was discussed, emphasising the importance of simple, user-friendly technological tools. Devices such as 'life-saving' buttons, wearables, video surveillance and sensors were considered, with a focus on privacy. Distinctions were made between rural and urban community environments, highlighting social activities, information points and the role of community social services in tackling social isolation.

Experts and carers in the Netherlands emphasised a person-centred approach, with attention to personalised interventions, technology integration and age-friendly housing design. The positive impact of assistive technology, such as tablets for older people, was noted. However, concerns were raised about their accessibility and potential exclusion of certain groups. Examples included virtual consultations, fitness trackers and smartphone apps for medication reminders. Age-friendly housing design, including flat floors and walk-in showers, was seen as crucial. Technological interventions in health care were highlighted, including remote monitoring and VR technology for cognitive exercises. Community support was seen as essential, with examples of free activities, creative workshops and buddy support. The importance of human-centred interventions and the potential exclusion of those less familiar with technology was recognised.

In Poland, the focus group discussed a comprehensive approach to age-friendly solutions covering housing, health and community, with an emphasis on practical activities and community engagement. Solutions ranged from home adaptations to accessibility of public spaces, highlighting the importance of basic needs for ageing in place. A wide range of health solutions were discussed, from horticultural therapy and group walking to memory training and mental health resources, all aimed at improving daily life. Community involvement was seen as crucial, with a bottom-up approach to defining local challenges and involving older people as co-developers of projects. Participants considered prevention to be more important than intervention, emphasising the need to avoid building communities from scratch.

Common themes emerged across countries, emphasising the need for personalised interventions. While technology was recognised as valuable, concerns were raised about its accessibility and potential exclusion of certain groups. Prevention rather than intervention was a recurring theme, with a focus on age-friendly design, community support and practical, everyday solutions to enhance the well-being and autonomy of older people.

The main results of the assessment of age-friendly solutions by focus group participants are summarised below in a cross-cutting comparison.

1. Housing

- Emphasis on barrier-free living spaces, anti-slip measures and assisted living tools (GR and PT).
- Emphasis on the importance of intergenerational housing projects and accessible design (DE).

- Highlighting the importance of age-friendly housing designs and interventions (NL and PL).
- Exploring home automation and lighting improvements (IT).
- Highlighting barriers to housing adaptations, including financial constraints, bureaucracy and lack of long-term planning (GR, IT and PL).
- Highlighting the challenges of alternative housing solutions, particularly in terms of funding and stable financial situations (DE).
- Highlighting health and safety measures in housing, such as fall prevention, ventilation and mental stimulation (GR, PT and IT).

2. Health

- Focus on health support points, care apps and technological interventions such as care robots, VR for cognitive exercises (DE and NL).
- Linking health with technological education (IT).
- while experts in Portugal emphasise mental stimulation (PT)
- Broadening the health discussion to include gardening, physical activity and social interaction (PL).

2. Technology

- Challenges and benefits related to the adoption of technology by older adults emerge in all focus groups.
- Addressing the challenges of technology adoption among older adults and proposing solutions such as info-points and lifelong learning (GR, PT and IT).
- Recognising both the positive impact of assistive technologies such as senior tablets technology and the potential exclusion of non-users, emphasising the need for personalised interventions (NL).
- Recognising the potential of technology advice and care robots (DE).
- Combining technology-related workshops with everyday activities, encouraging a hands-on approach (PL).

3. Community

- Emphasis on community involvement and support, including buddy systems and community centres (DE and NL).
- Emphasis on family and community support as central to meeting the challenges faced by older people such as dementia (PT and IT).
- Exploring solutions for communal spaces in buildings (PL).
- Mentioning the lack of organised community interventions and stressing the need for systematic approaches (GR).
- Addressing the differences between rural and urban social environments and emphasise the need for social activities (IT).
- Emphasis on bottom-up approaches and community involvement in defining local challenges (PL).

In conclusion, the focus groups in different countries provided rich insights into age-friendly solutions, reflecting different cultural contexts while highlighting universal challenges and opportunities in promoting healthy ageing in place and within communities.

5.2 Examples and assessment of impact of eco-friendly solutions in different areas

In addition to age-friendly solutions, focus group participants were asked to identify useful eco-friendly solutions and assess their impact on the quality of life of older people.

In Greece, carers and experts discussed various eco-friendly solutions and their impact, covering transport, plants/gardening, recycling, energy, water and more. Participants emphasised personal efforts such as avoiding daily car use, using bicycles and group transport for older people. Planting and gardening was highlighted for mental wellbeing, with public gardens established in many cities. Recycling initiatives, particularly in mental health interventions, were mentioned, as were efforts to reduce energy consumption and water waste.

In Germany, focus group participants were aware of eco-friendly solutions such as water bottle refilling initiatives, traditional hygiene (washing instead of showering) and grey water collection. Conservation of resources, including giving away possessions, was emphasised. Urban gardening and shade benches for planting were mentioned. Energy solutions included renovation plans, LED lighting and plug-in solar panels for the balcony. Mobility and energy were identified as crucial elements, but challenges for older people included feeling overwhelmed by climate change and financial concerns.

In Portugal, carers and experts discussed green solutions, including prioritising insulation when renovating homes, limiting car use, promoting sustainable agriculture and improving waste management. Sustainable food production and recycling practices were highlighted, with a switch from water bottles to water filters in nursing homes. The focus was on minimising energy losses, promoting public transport and implementing sustainable agriculture policies.

In Italy, participants noted that older people tend to have a more eco-friendly lifestyle due to their upbringing. Solutions discussed included low-impact insulation and solar panels for energy, improvements in public transport and energy-saving measures in consumption. Water saving habits such as turning off taps and reusing rainwater were suggested. Recycling practices were generally good, but awareness and education of older adults was mentioned.

In the Netherlands, caregivers admitted that they did not pay much attention to eco-friendly measures, but noted the frugality of older people. Economic factors were highlighted, with concerns about the affordability of green solutions for those with limited financial means. Increased awareness due to the energy crisis has led to changes in habits. Community involvement, waste separation and clean streets initiatives were emphasised.

In Poland, focus group discussions covered a range of eco-friendly solutions, including energy efficient lighting, car sharing, reducing food waste and promoting healthier, local and seasonal food. Planting and gardening initiatives such as permaculture and community gardens were highlighted. The importance of linking environmental goals with economic savings for older people was emphasised. Challenges included convincing older people to replace appliances that are still working with more energy-efficient options.

The following cross-cutting comparison of focus group participants' perceptions of eco-friendly solutions in Greece, Germany, Portugal, Italy, the Netherlands and Poland reveals both common perspectives and unique insights.

1. Awareness and commitment

- Participants in all countries demonstrated awareness of eco-friendly solutions and a commitment to adopting sustainable practices.
- While awareness was consistent, the level of commitment varied. Financial concerns and the perceived cost of implementing eco-friendly solutions were common challenges, (particularly in IT and NL).

2. Transport

- Public transport and alternative forms of commuting were widely recognised as eco-friendly options.
- Specific challenges in public transport, such as accessibility for senior citizens, were pronounced (particularly in DE and IT).

3. Energy efficiency

- Focus groups in all countries recognised the importance of reducing energy consumption and implementing energy efficient solutions.
- The specific energy solutions ranged from LED lights and plug-in solar panels (DE and IT) to a focus on controls and switches (GR).

4. Waste management

- Recycling and waste reduction was a consistent theme, with a focus on proper waste separation and recycling practices.
- Challenges related to waste management included issues of awareness and accessibility of recycling bins (particularly in IT and PL).

5. Planting and gardening

- Connecting with nature through planting and gardening for mental wellbeing was a common perspective.
- Specific initiatives varied from public gardens (GR) to urban gardening programmes (DE) and permaculture (PL).

6. Water conservation

- Water conservation was highlighted as crucial in all countries, with common practices such as using filters, collecting rainwater and reducing water waste.
- The perception of water as a pressing issue varied, with some groups expressing more concern and advocating educational initiatives (PT).

7. Economic considerations

- Financial considerations emerged as a common challenge affecting the adoption of eco-friendly solutions, particularly for older people.
- The extent to which financial concerns influenced behaviour varied, with experts in some countries highlighting it as a significant barrier (IT and NL).

8. Community engagement:

- The importance of community engagement and local initiatives was recognised in different contexts in different countries.
- The specific examples of community involvement varied, such as waste separation initiatives (NL) and community gardens (PL).

The need for age-friendly approaches to engage older people was also emphasised in all countries. On the other hand, reasons for potential reluctance, such as feeling overwhelmed by climate change or experiencing financial constraints, were highlighted differently in each country.

The challenges and barriers identified by focus group participants highlight the importance of tailoring sustainability efforts to the specific circumstances of each country and population, with a particular focus on addressing financial concerns and ensuring accessibility. More detailed assessments by the experts of the financial barriers to the implementation of age- and eco-friendly solutions are summarised in the following section.

5.3 The role of costs in age- and eco-friendly interventions

The assessment of the role of costs in the implementation of age- and eco-friendly measures varied between the focus groups.

In Greece, according to the focus group participants, older people's concerns centred on how their pensions would cover their daily needs, the cost of medication and the management of chronic conditions. The economic recession forced many to contribute to family costs, which suppressed the inclination to invest in age- or environment-friendly solutions. However, the availability of EU funding for energy-efficient home renovations was taken up by some, suggesting a positive impact on home improvements.

In Germany, the focus group participants perceived costs to be significant in a number of areas and influenced decision making, particularly for housing adaptation. Financing energy efficient renovations, stair lifts or grey water systems was seen as a major barrier for older residents. The focus group suggested a societal approach, sharing costs through defined standards and working with housing associations. While funding was available, the group noted a lack of awareness among older people.

In Portugal, the cost of age- and eco-friendly solutions was seen as crucial by the experts, with most older people prioritising comfort over environmental concerns due to low pensions. Bureaucratic restrictions limited the accessibility of social security support, and European funding for eco-friendly solutions was seen as insufficient for effective sustainability, focusing on cladding and painting rather than efficient ventilation systems.

The Italian participants unanimously recognised the key role of costs in the decision to adopt age- and eco-friendly solutions. Factors such as low pensions, complex bureaucracy, high costs of eco-friendly solutions and limited incentives for the older population were highlighted. The fiscal system offered a ten-year tax rebate plan, but older adults, especially those over 75, showed limited interest due to short-term planning and a lack of focus on their specific needs.

In the Netherlands, the role of cost was highlighted as crucial by the focus groups, especially in times when financial considerations are important (as they are now). Older people, who have less to spend, are less inclined to invest in long-term benefits, reflecting a pragmatic approach to age- and eco-friendly measures.

Finally, in Poland, the role of cost in age- and environment-friendly interventions was considered fundamental. Older people often couldn't afford the necessary adaptations to their homes, so their health and well-being were compromised due to financial constraints. The inability to cover basic recurrent costs further limits the willingness to implement costly solutions.

In summary, while the importance of cost was recognised in all regions, the specific challenges and perspectives varied. Factors to consider include economic conditions, the availability of funding, bureaucratic complexity and the level of awareness among the older population.

5.4 Assessment of learning needs of the caregivers and experts

Some of the focus group participants, the caregivers, are themselves a direct target group of the AFECO project's learning provision. For this reason, particular attention was paid in the focus groups to identifying their own learning needs. These are summarised below

When assessing the learning needs of caregivers and experts in Greece, a common theme emerged in relation to age-friendly principles. Despite some caregivers exhibiting understanding of fundamental age-friendly principles, mainly concerning adaptations to housing, there was a general consensus indicating a lack of expertise in various relevant fields. Caregivers reported feeling uncertain in their ability to comprehensively implement age-friendly solutions. Limited sources of information made issues related to technology in home settings particularly challenging. However, some caregivers had attended seminars on caring for older people and had acquired knowledge about age-friendly solutions.

Caregivers in Greece cited personal commitment, mass media, and social media as the primary sources of their knowledge on eco-friendly principles. To reduce environmental impact, they made efforts towards recycling, water conservation, and adopting sustainable technologies such as solar water heaters and thermal insulation for houses. However, more resources and information on eco-friendly practices are necessary in order to increase impact.

In Germany, the assessment of learning needs revealed a desire for information among caregivers and experts on several topics. Within the realm of age-friendly structures, participants requested guidance on substituting family structures to mitigate the negative effects of social isolation. Furthermore, they expressed a need for additional information on alternative activating services, such as music therapy, and specific community services and initiatives.

Concerning eco-friendly solutions in Germany, participants stressed the need to raise awareness of funding opportunities among the target audience. They urged for more information regarding financial options for eco-friendly solutions, including balcony solar systems, and identified bureaucratic hurdles that often prevent older people from accessing such funding.

In Portugal, the assessment of learning requirements revealed diversified levels of knowledge among caregivers and experts. Whilst some demonstrated an understanding of age-friendly principles, others were unfamiliar with the concept. Improved communication between municipalities and health centres was recognised as necessary to inform caregivers about local initiatives. The application of eco-friendly practices was only partially implemented, with workers utilizing some methods such as recycling and self-closing faucets, but expressed the need for additional concrete examples to enhance their ecological practices.

Participants in Italy demonstrated advanced skills in identifying age-friendly solutions and addressing the challenges faced by older people in their living environment. However, they faced challenges in accessing information or courses related to the living environment of people with chronic or rare diseases. Eco-friendly solutions varied and some participants showed uncertainty in implementing practices that improve the quality of life of older adults and their caregivers.

The learning needs assessment in the Netherlands highlighted the need for centralised information on different measures and interventions. They also expressed the need for information points that are easily accessible to older people, as the rules for interventions vary considerably from one municipality to another. Focus group participants stress the importance of providing clear and transparent data on the short-term effects, costs and benefits of interventions. They also emphasise the necessity of supporting those who lack digital literacy.

Finally, caregivers and experts in Poland have identified specific areas where they desire knowledge about age-friendly solutions, including memory training with new exercises, updates on fall prevention technology, and a deeper understanding of the psychological background of community building as well as a 'bank of ideas' for workshops tailored to locally defined needs. In the field of eco-friendly solutions, there was a desire to discover novel strategies to encourage older people to adopt more energy-efficient practices.

The different perspectives shed light on the nuanced challenges and priorities faced by caregivers and experts in each cultural context and can be summarised as follows.

Age-friendly principles

Limited knowledge and uncertainty: A common challenge expressed by participants in Greece, Germany and Italy was a lack of specific knowledge about various age-friendly principles. Caregivers often felt insecure about applying these principles in a comprehensive way.

Need for practical guidance: In Germany and Poland there was a common need for practical information on how to implement age-friendly principles. Participants expressed interest in guidance on substitution of family structures, activating services and neighbourhood support.

Communication and awareness gaps: In Portugal there was a recognised need for better communication between municipalities and health centres to inform carers about local age-friendly initiatives. Similar concerns about awareness gaps were raised in Italy.

Eco-Friendly principles

Personal involvement and media influence: In Greece, participating caregivers relied on personal commitment, mass media and social media for knowledge on eco-friendly solutions. Similar patterns were observed in Portugal, where focus group participants practised partial implementation of eco-friendly principles.

Desire for funding information: Participants from Germany and the Netherlands expressed a common need for more information on funding opportunities for eco-friendly solutions. Bureaucratic obstacles were identified as a common challenge.

In summary, carers and experts from different countries shared the challenges they face in implementing age- and eco-friendly solutions. They expressed a need for more information, practical tools, funding information and centralised resources to improve their knowledge and skills in the care context. However, differences in levels of awareness and specific needs were evident, highlighting the importance of tailoring approaches to meet the different learning needs in (and within) each country.

5.5 Synergies between age- and eco-friendly principles mentioned by the caregivers and experts

While there is a general lack of awareness among participants in different countries of the interconnection between age- and eco-friendly principles, common synergies emerged. These included among others links between mobility and community, consumption and health, and consumption and technology. Concrete solutions ranged from motion detectors to age-friendly daily living aids. Across all regions, education and stakeholder collaboration were highlighted as crucial components for successfully integrating age- and eco-friendly principles into different aspects of daily life. The following examples of synergies were collected in the focus groups.

Infrastructure and accessibility

- Providing accessible infrastructure for social participation, including initiatives such as car-pooling and assistance with new eco-friendly means of transport (DE).
- Emphasising age-friendly housing and access to eco-friendly mobility offers to promote the independence of older adults (DE).

Technology and resource efficiency

- Integrating technology, such as smart thermostats, to help save and become more energy efficient (DE).
- Implementing self-closing taps as a water-saving technology (PT).

Safety and resource efficiency

- Identifying safety as a commonality between age-friendly solutions and economic/environmental safety through reduced consumption (more efficient equipment) (PL).
- Implementing solutions such as motion detectors to save energy and improve safety (DE).

Health and well-being

- Recognising the link between consumption patterns and public health, e.g. less car usage goes along with improved air quality (DE).
- Incorporating plants into the home for environmental and health benefits (DE).
- Engaging in gardening for mental and physical health, fostering social connections and enabling the consumption of organic products (PT, PL).

Comfort and eco-friendly solutions

- Prioritising ecological materials in home temperature control for comfort through natural ventilation systems (PT).
- Introducing eco-friendly adult nappies or nappy pants as products in line with age- and eco-friendly principles (PT).

Reuse and recycling

- Setting up systems, such as deposit boxes in a health centre, to facilitate the reuse of medicines, thereby reducing waste and costs (PT).

Education and information

- Using television as a powerful medium to disseminate information and educate the public about eco-friendly and age-friendly solutions (PT).
- Emphasising the importance of education in designing age-friendly spaces and involving younger generations in a lifelong learning process (IT).
- Establishing information points to help older adults navigate technology and bureaucracy when making major home changes (IT).
- Integrating principles through conversations with older adults by including considerations related to energy use in discussions about areas of life such as finances (NL).

6. Conclusions

6.1 Conclusions for the development of training of older people

The conclusions drawn from the interviews (as well as from the focus groups) in Greece, Germany, Portugal, Italy, the Netherlands and Poland highlight common themes and unique considerations in the development of training offers for older people. There is a general preference for clear and simple training structures, with an emphasis on the importance of catering for different levels of knowledge. The role of technology varies, with some expressing comfort with e-learning environments and others leaning towards face-to-face interaction.

There are clear information gaps, particularly in Germany, where individuals struggle to find resources on ageing, housing and financial support for age-friendly equipment. Similarly, the need for accessible information is highlighted in the Netherlands, where, as in all countries, financial constraints pose a challenge to the adoption of age- and eco-friendly practices.

The importance of tailored approaches is evident, as in Portugal, where practical examples, visuals and interactive elements are emphasised to effectively engage older learners. In addition, scepticism about technology, as seen in Italy, suggests the need for a variety of teaching methods to suit individual preferences.

The desire for social connection and belonging to a community is a common thread, emphasised in both Italy and Greece. This underlines the importance of not only providing practical training but also fostering a sense of belonging and engagement.

In summary, a successful training offer for older people should be adaptable, combining clear and simple structures with a variety of teaching methods. It should address information gaps, consider the affordability of age- and eco-friendly solutions, and prioritise the social aspect of learning. The different preferences and needs expressed in these countries underline the need for a nuanced and culturally sensitive approach to the development of training offers for older people.

6.2 Conclusions for the development of training of caregivers and social workers

In summary, the findings of the focus group participants in the different countries where the AFECO project is being implemented highlight different training needs for carers and social workers in their specific contexts.

Participants in Greece highlighted a significant knowledge gap regarding age- and eco-friendly solutions, and emphasised the need for training that provides a wealth of information on relevant policies, practices and collective actions within a voluntary or activist framework.

Conversely, in Germany, where participants are familiar with age-friendly solutions, there is a need for a better understanding of emerging technologies and eco-friendly practices, such as AAL, solar energy and energy advice. In addition, participants expressed a desire for more knowledge about activating local services and building community networks.

Participants in Portugal emphasised the need to clearly define age- and eco-friendly concepts, to provide practical examples tailored to their working contexts and to ensure concise and clear training due to their busy schedules.

In Italy, the focus should be on improving knowledge of eco-friendly solutions, as participants feel less confident in this area. The importance of community relations and lifelong learning programmes for citizens dealing with ageing should be emphasised.

Participants in the Netherlands are aware of age-friendly measures, but express a need for centralised information and practical guidance on implementation, including financial aspects. There is also an expressed interest in eco-friendly measures, indicating a need for targeted training in this area.

In Poland, participants reported a medium level of competence in eco-friendly principles, with a desire for more organised information and a 'bank of ideas' for workshop diversification to keep activities interesting for local communities.

In conclusion, focus group participants in each country highlighted specific knowledge gaps and contextual challenges, underlining the importance of tailoring training for carers and social workers to their specific needs. In this way, training offers can better equip these informal caregivers and professionals to provide effective, culturally relevant care to older people while implementing age- and eco-friendly principles in their homes or communities.

ANNEX 1: Questionnaire characteristics and learning preferences

In order to be able to tailor the learning opportunities we develop as well as possible to individual needs, we ask you to provide the following information about yourself. This information will be kept absolutely confidential and will only be used to analyse the interview results.

1. Gender:
 - ☐ Male
 - ☐ Female
 - ☐ Other or prefer not to say

2. Level of autonomy
 - ☐ Fully autonomous
 - ☐ Not autonomous

3. Housing status
 - ☐ Own house/apartment
 - ☐ In rent

- Number of persons living in your household (including you): _____

4. Age:
 - ☐ 65-74 years old
 - ☐ 75-84 years old
 - ☐ 85 or more

5. Occupation (before retirement and/or current) _____

6. Highest level of education
 - ☐ No education
 - ☐ Primary education
 - ☐ Secondary education
 - ☐ Vocational education and training
 - ☐ Higher education

7. My income is sufficient to cover my basic needs without any problems
- ☐ 1 (not at all)
 - ☐ 2
 - ☐ 3
 - ☐ 4
 - ☐ 5 (to a large extent)

8. I live well on my income.
- ☐ 1 (not at all)
 - ☐ 2
 - ☐ 3
 - ☐ 4
 - ☐ 5 (to a large extent)

9. What do you need in order to learn new things? Please write down your spontaneous answers to the following questions. There are no right or wrong answers.

9.1 What motivates you while learning?

9.2 How do you learn the best? With what kind of attributes/resources?

9.3 What kind of support do you need while learning new things?

9.4 What kind of materials do you need while learning?

9.5 Do you prefer learning alone or not? With whom do you like to learn?

9.6 How do you like to see your own progress?

9.7 What time of day do you learn most productive? Afternoon? Mornings? Evening? Planned beforehand? Not planned etc?

9.8 Do you have examples of online learning environments that work for you or that you don't like? What do you/don't you like about them?

ANNEX 2: Frequencies of characteristics of the interviewees

Table 1. Frequencies of interviewees by country and gender

Country (N total)	Male	Female	Missing values	N (valid)
NL (N=21)	10	11	-	21
IT (N=20)	5	15	-	20
DE (N=19)	2	11	6	13
PT (N=20)	6	13	1	19
PL (N=20)	6	14	-	20
GR (N=10)	2	8	-	10
Total	31	72	7	103
Proportion in % (valid)	30.1	69.9	-	100

Table 2. Frequencies of interviewees by country and age group

Country (N total)	<65	65-74	75-84	85+	missing values	N (valid)
NL (N=21)	0	15	3	3	-	21
IT (N=20)	1	9	6	4	-	20
DE (N=19)	1	3	5	4	6	13
PT (N=20)	0	17	3	0	-	20
PL (N=20)	2	13	5	0	-	20
GR (N=10)	0	3	5	2	-	10
Total	4	60	27	13	6	104
Proportion in % (valid)	3.8	57.7	26	12.5	-	100

Table 3. Frequencies of interviewees by country and education

Country (N total)	No Education	Primary School	Secondary School	VET	Higher Education	Missing values	N (valid)
NL (N=21)	0	0	6	5	10	-	21
IT (N=20)	0	5	8	4	3	-	20
DE (N=19)	0	0	5	3	5	6	13
PT (N=20)	0	5	6	2	7	-	20
PL (N=20)	0	2	0	6	12	-	20
GR (N=10)	0	4	3	2	1	-	10
Total (110)	0	16	28	22	38	6	104
Proportion in % (valid)	0	15.4	26.9	21.2	36.5	-	100

Table 4. Frequencies of interviewees by country and dependence

Country (N total)	Independent living	Dependent living	Missing values	N (valid)
NL (N=21)	21	0	-	21
IT (N=20)	20	0	-	20
DE (N=19)	12	1	6	13
PT (N=20)	20	0	-	20
PL (N=20)	20	0	-	20
GR (N=10)	5	5	-	10
Total (110)	98	6	6	104
Proportion in % (valid)	94.2	5.8	-	104

Table 5. Frequencies of interviewees by country and home ownership

Country (N total)	Rent	Ownership	Missing values	N (valid)
NL (N=21)	9	12	-	21
IT (N=20)	10	10	-	20
DE (N=19)	7	6	6	13
PT (N=20)	0	20	-	20
PL (N=20)	15	5	-	20
GR (N=10)	1	9	-	10
Total (110)	42	62	6	104
Proportion in % (valid)	40.4	59.6	-	100

Table 6. Frequencies of interviewees by country and household size

Country (N total)	1 person	2 persons	more than 2 persons	missing values	N (valid)
NL (N=21)	11	10	0	-	21
IT (N=20)	12	3	5	-	20
DE (N=19)	1	0	0	18	1
PT (N=20)	2	17	1	-	20
PL (N=20)	3	16	1	-	20
GR (N=10)	3	5	2	-	10
Total (110)	32	51	9	18	92
Proportion in % (valid)	34.8	55.4	9.8	-	100

Table 7. Frequencies of interviewees by country and income perception: coverage of basic needs

Country (N total)	Not at all	Rather not	Moderate	Rather yes	To a large extent	Missing values	N (valid)
NL (N=21)	0	0	5	7	9	-	21
IT (N=20)	1	4	5	3	7	-	20
DE (N=19)	0	0	6	3	3	7	12
PT (N=20)	0	1	4	5	10	-	20
PL (N=20)	0	4	7	5	4	-	20
GR (N=10)	1	0	4	2	3	-	10
Total (110)	2	9	31	25	36	7	103
Proportion in % (valid)	1.9	8.7	30.1	24.3	35.0	-	100

Table 8. Frequencies of interviewees by country and income perception: Living well on income

Country (N total)	Not at all	Rather not	Moderate	Rather yes	To a large extent	Missing values	N (valid)
NL (N=21)	0	0	4	10	7	-	21
IT (N=20)	1	4	5	7	3	-	20
DE (N=19)	0	1	5	3	3	7	12
PT (N=20)	0	1	4	5	10	-	20
PL (N=20)	1	6	5	5	3	-	20
GR (N=10)	1	1	3	3	2	-	10
Total (110)	3	13	26	33	28	7	103
Proportion in % (valid)	2.9	12.6	25.2	32.0	27.2	-	100

ANNEX 3: Age- and eco-friendly solutions

Age-friendly solutions mentioned in interviews

In-house adaptations

- Higher toilets and washbasins
- Grab rails in the bathroom
- Stair lift
- Avoiding stairs
- One toilet in the room
- Adaptations in the kitchen and washrooms
- Lift, ramps
- Not owning too much stuff
- Obligations for landlords to make age-appropriate adaptations
- Accessible showers
- Emergency call button
- Removal of carpets
- Allowing easy access to frequently used objects
- Suitable furniture height
- Ergonomically shaped armchairs
- Spacious and changeable living space
- Age-friendly appliances that go off when inactive
- Suitable bed height
- Good artificial and natural light
- Good thermal insulation
- Structural: relevance of architects and engineers specialised in age-friendly housing
- Flat on the ground floor
- Suitable temperature
- Locker (In retirement home: personal objects)
- Ant-slippery carpets
- Easy moveable furniture

Adaptions in Public space

- Kerbstone lowering
- Pavement repair
- No e-scooters in the way
- Seating
- Public toilets
- Barrier-free access to public transport
- Cost subsidies for openings of accessible shops in senior-dominated neighbourhoods

Social Monitoring

- E.g. Neighbourhood WhatsApp Chat
- Formal/ informal caregivers

Basic needs and participation

- Shops
- Pharmacies and doctors
- Public transport stops
- Transport services to swimming pools, physiotherapists etc.
- Decentralised services
- Accessibility of own home for cars and emergency services
- Priority in accessing public services
- Urban senior cards
- Clear public announcement for visually impaired

Mobility

- e.g. driving a taxi for free
- Sharing of means of transport
- Free public transport
- Bus stops at hospital
Designated seating areas in public places and public transport
- Travel in a transport where road users are aware of and respectful of older residents
- Live and reliable information about available transport options

Information

- On support services through brochures
- Further education and outreach services by public authorities
- Housing advice
- Information on assisted care
- Lectures by public institutions

Social

- Participation in projects (e.g. the bicycle buddy project)
- Places to meet
- Contacts with neighbours
- Neighbourhood services
- Mixed environment, communal neighbourhood
- Mobility
- Home visits for people with limited mobility
- Formal/ informal caregivers

Security & cleanliness

- Programmes against speeding drivers
- Protection against crime
- Eco-friendly adult nappies

Culture

- Cultural offerings, learning opportunities
- Digital continuing education courses
- Restaurants for senior citizens
- Senior universities and day centres

Health

- Care apps (DE)
- Home emergency call and service apps (DE)
- Food and medicine deliveries
- Free medication for seniors
- Care support points and senior citizens' offices
- Shock ventilation
- Donate unused medication

Living

- Intergenerational, communal housing projects
- Shared flats by type of illness (e.g. dementia shared flats)
- Toilet chairs, grab rails, shower chairs
- Housing advice, care assessment
- Financing through long-term care insurance
- Pets for accompaniment
- Passive houses
- Clothing and towels made of soft and natural materials
- Combining bedroom and bathroom
- Night lighting with photo cells
- Age-friendly library

Technology

- Technical consultations
- Care robots
- Sensor systems
- GPS tracking systems
- Technical aids (grab bars, stair and bath lifts, rollators)
- Video surveillance
- Taps that turn themselves off
- Advertising for age- and environment-friendly solutions
- Circuit breakers
- Underfloor heating
- Automatic solutions to prevent physical exhaustion
- Induction hob
- Smart watches

Local Community

- Social engagement of people in the residential environment
- Facilitators for projects and plans
- Neighbourhood help, self-help groups, availability of public toilets, repair cafés, presence of disability officers in municipalities

Eco-friendly solutions mentioned in interviews

Home/everyday life

- Waste separation
- Good insulation
- Composting
- Using light in an energy-saving way
- Installment of LED lightning
- Smart thermostats
- Ceiling fan instead of air condition
- Heat management, ventilation morning, closing everything afterwards
- Triple glazed windows
- Multigenerational living

Environment

- Garden with grass instead of slabs
- No cobblestones
- Bushes, flowers, trees, green plants, green roofs
- Own or shared garden
- Urban workshop that takes care of greening

Mobility

- Bicycle instead of electric bike
- E-bikes instead of mobilised individual transport
- Training courses of the Verkehrswacht
- Use of a rollator
- Car sharing
- Low-cost public transport for seniors
- Public transport, cycling or walking
- Organise village walks
- Using e-scooters

Water

- Heat pump and panels for water generation
- "economical shower"
- Washing and ironing clothes when it is convenient (with solar panels when the sun is shining)
- Rainwater collection
- Refill water bottle initiatives
- Water bubbler
- Washing instead of showering
- Collecting (grey) water
- Washing in hand when for few clothes

Green Spaces & Planting

- Urban Gardening
- Increasing biodiversity in the garden
- Composting leftovers from vegetables
- Composting mowed grass
- Shade benches and green spaces
- Wild plants to increase biodiversity
- Irrigation of existing green infrastructure
- Green Places and Shady Places

Energy

- Refurbishment roadmaps
- Replacement of technical equipment (LED lightning)
- Energy advice/energy balance plans
- Timers
- Motion detectors
- Solar panels
- Neighbourhood assistance (reduced emissions)
- Natural methods to heat or cool the house, e.g. cross ventilation or fireplaces
- Turn off unused technical devices at night
- Keep lights off when not in use
- Solar-powered garden lights
- Usage of heat pumps

Consumption/ Waste

- Food Sharing
- Donate or lend unused items
- Sell or exchange unused items
- Conserving resources
- Recycling and upcycling
- Second-hand shopping
- Eco-friendly detergent, as long as affordable
- Buy local and seasonal products
- Organic Waste Collection Project
- Give leftover food to animals
- Use charcoal as fertiliser
- Cultivate organic garden with organic pesticides
- Avoidance of plastic materials
- Avoidance/reduction of meat consumption