## What is the purpose of this policy brief?

This policy brief is based on the outcome of a scoping review that examines how diversity of older people and the ageing population has been considered in co-creation processes of gerontechnology for ageing in place.

It provides recommendations to policymakers, researchers, community partners, and AgeTech market experts and entrepreneurs who work with older adults and seek to create inclusive digital tools that address the needs of diverse older adults.

#### Importance of co-creation:

It is important to acknowledge that diverse ageing populations are not only passive users but active participants who shape gerontechnology (Peine & Neven, 2021). Co-creation focuses on involving the target audience in research as 'experts by experience' (Merkel & Kucharski, 2019). Co-creation in gerontechnology requires active collaboration with a variety of stakeholders to meet the needs and expectations of diverse older adults. In our scoping review, we see examples of various types of co-creation, such as participatory action research, community-based participatory research, and co-

#### **Key Messages**

- We need to pay attention to including older adults with diverse migration backgrounds in policy and design to create accessible, desirable and functional gerontechnology.
- 2. A proactive and inclusive approach is essential. Ensuring that co-creation strategies are systematically integrated in policy and practice, helping to prevent widening inequalities among older adults with a migrant background.
- 3. Policymakers, researchers, and industry should take proactive steps to establish a culturally sensitive, inclusive design that addresses the needs of diverse older adults.
- 4. Active collaboration with community partners, who connect with the diverse ageing population, helps the recruitment and create accessible research for older adults.
- Co-creation can be an approach for inclusion rather than another source of exclusion in all phases of design, development, and implementation.

design. However, there is still a need for guidelines on how co-creation processes can be applied to gerontechnology for older adults with a migration background.

Involving older adults with diverse migration backgrounds is crucial to **create desirable**, **functional and accessible gerontechnology with inclusive design**. Because the challenges and barriers that they experience daily are different from their peers who are originally from the host country. The challenges and barriers are based on the migration experience and independent of the ethnicity of the groups (Ekoh et al., 2023). **Their diverse values and perceptions** affecting the desirability, feasibility and accessibility of gerontechnology, can be discovered with co-creation approaches.



#### Who should read this policy brief?

This policy brief is for *policymakers, researchers, community partners, AgeTech market experts and entrepreneurs* who aim for inclusive design and want to focus on creating desirable, functional, accessible gerontechnology for older adults with diverse (migration) backgrounds.

#### What was found so far?

## - Prioritize inclusive research and development:

With our scoping review we did not come across any papers providing explanations or guidelines on how to involve older adults with a migration background in co-creation. Therefore, it is important to develop inclusive protocols and frameworks for engaging these adults in the co-creation gerontechnology research, and increase funding for research that prioritises co-creation with these underrepresented groups. There is a need for future research to develop guidelines for co-creation with older adults with diverse migration backgrounds.

#### Strengthen partnership within the community and involvement of community partners in research:

Our scoping reviews showed benefits of active involvement of community partners (such as people living in the community community leaders, community organizations that advocate for older adults with a migration background or provide care to these ageing populations, or cultural mediators), because they understand the situation of the older adults as well as the context. Therefore, we

# Why is it important to co-create gerontechnology with older adults with diverse migration backgrounds?

The ageing experience of older adults with a migration background differs from their peers in the host country and from peers from their country of origin. Therefore, these older adults will different challenges.

For example, older adults with diverse migration backgrounds:

- tend to develop chronic illnesses earlier (Jang et. al., 2023);
- often have lower social well-being (Sand & Gruber, 2016);
- often have lower level of social inclusion, due to host country's native language proficiency, and socio-economic status (Chen et al., 2022);
- and experience loneliness more often (Barjakova et al., 2023).

As a result of these listed characteristics, these older adults face various barriers when accessing and using gerontechnology, from language and knowledge literacy gaps to culturally unmet needs in designs (van Leersum et al., 2023).

recommend to aim for this kind of partnership in all stages of research to collaboratively enhance accessible recruitment and data collection. Moreover, it helps to analyse the data and report with minimal researcher bias regarding the cultural context. Such partnerships also **bridge trust gaps and enhance engagement.** 

#### Expand participation beyond early stages:

It is valuable to encourage research and designers to go beyond the involvement in idea generation and involve older adults in prototype testing and iterative design improvements as well. Feedback from participants with real-world usability experiences is crucial in idea generation, an early step in

gerontechnlogy development, but their feedback is as well crucial in later stages of an actual iterative design and implementation. **All phases should be done together** with older adults with diverse migration backgrounds.



### Addressing challenges about cocreation of gerontechnology with older adults with diverse migration backgrounds:

It is important to be aware of bias in the recruitment and data collection while using cocreation approaches and recruiting through community partners.

- Bias on recruitment: There are still older adults with a migration background who are not in touch with community partners or organizations. Therefore, we recommend researchers address this limitation or explain how they overcome this challenge in their studies.
- 2. Bias on data collection: As co-creation approaches rely on follow-up sessions with the participants, the ones who cannot continue with the follow-up are counted as dropouts. We suggest that researchers reflect on dropout rates and the effect on their study.
- 3. Bias on data analysis: It is recommended to involve bilingual researchers or community partners, who can participate as interpreters, to analyse the data and raise awareness on cultural factors related to experience and perceptions of the gerontechnology by the older adults.

#### Conclusion

This policy brief highlights the necessity of integrating inclusive co-creation practices into the design, development and implementation of gerontechnology to ensure accessibility and usability for older adults with diverse backgrounds. By identifying key barriers and proposing actionable steps, this policy brief underscores the importance of policy, research and industry collaboration in fostering culturally responsive and accessible gerontechnology.

By embedding co-creation into policy frameworks, strengthening partnerships with community partners, ensuring sustained user engagement, and prioritizing inclusive research, stakeholders can work towards reducing digital inequalities and enhancing gerontechnology adoption among diverse ageing populations.

There is an opportunity to *build more inclusive*, *accessible*, *and desirable gerontechnology* that truly responds to and supports the needs of older adults with diverse migration backgrounds. This requires intentional policy shifts, strong community partnerships, and commitment from researchers and industry.

By implementing these recommendations, cocreation can be an approach for inclusion rather than another source of exclusion.

#### **Authors and Contact details**

**Nil Meral**, HOMeAGE and Open University of the Netherlands, <a href="mailto:nil.meral@ou.nl">nil.meral@ou.nl</a> **Catharina M. van Leersum**, HOMeAGE and Open University of the Netherlands, <a href="mailto:karin.vanleersum@ou.nl">karin.vanleersum@ou.nl</a>

**Alexander Peine**, HOMeAGE and Open University of the Netherlands, <u>alex.peine@ou.nl</u> **Henk Herman Nap**, HOMeAGE and Vilans, <u>h.nap@vilans.nl</u>

#### How did this policy brief come about?

This policy brief results from a collaboration between Vilans and HOMeAGE researchers. We developed a critical reflection on current practices in the literature regarding the involvement of older adults with diverse migration backgrounds in the co-creation of gerontechnology.

#### References and sources

- Barjaková, M., Garnero, A., & d'Hombres, B. (2023). Risk factors for loneliness: A literature review. *Social science & medicine* (1982), 334, 116163. <a href="https://doi.org/10.1016/j.socscimed.2023.116163">https://doi.org/10.1016/j.socscimed.2023.116163</a>
- Chen, X., Frennert, S., & Östlund, B. (2022). The use of information and communication technology among older immigrants in need of home care: A systematic literature review. *Ageing International*, *47*, 238-264. <a href="https://doi.org/10.1007/s12126-021-09417-x">https://doi.org/10.1007/s12126-021-09417-x</a>
- Egilstrød, B., Wegener, C., Henriksen, L. S., & Petersen, K. S. (2023). Conceptualisation of co-creation and co-production. *European Journal of Public Health, Volume 33* (Suppl. 2), ckad160.734, <a href="https://doi.org/10.1093/eurpub/ckad160.734">https://doi.org/10.1093/eurpub/ckad160.734</a>
- Ekoh, P. C., Okolie, T. J., Nnadi, F. B., Oyinlola, O., & Walsh, C. A. (2023). Understanding the impact of digital technology on the well-being of older immigrants and refugees: A scoping review. *Digital health*, 9, 20552076231194947. https://doi.org/10.1177/20552076231194947
- Jang, S. Y., Oksuzyan, A., Myrskylä, M., van Lenthe, F. J., & Loi, S. (2023). Healthy immigrants, unhealthy ageing? Analysis of health decline among older migrants and natives across European countries. SSM population health, 23, 101478. https://doi.org/10.1016/j.ssmph.2023.101478
- Merkel, S., & Kucharski, A. (2019). Participatory Design in Gerontechnology: A Systematic Literature Review. *The Gerontologist*, 59(1), e16–e25. https://doi.org/10.1093/geront/gny034
- Peine, A., & Neven, L. (2021). The co-constitution of ageing and technology a model and agenda. *Ageing and Society*, 41(12), 2845–2866. https://doi.org/10.1017/S0144686X20000641
- Sand, G., & Gruber, S. (2018). Differences in Subjective Well-being Between Older Migrants and Natives in Europe. *Journal of immigrant and minority health, 20(1),* 83–90. <a href="https://doi.org/10.1007/s10903-016-0537-5">https://doi.org/10.1007/s10903-016-0537-5</a>
- van Leersum, C. M., Konrad, K. E., Siebrand, E., Malik, Z. B., den Ouden, M. E. M., & Bults, M. (2023). Engaging older adults with a migration background to explore the usage of digital technologies in coping with dementia. *Frontiers in public health, 11,* 1125834. https://doi.org/10.3389/fpubh.2023.1125834

#### **About HOMeAGE**

HOMeAGE is a Marie Sklodowska Curie doctoral training network on 'Advancing Research and Training on Ageing, Place and Home. It aims to institute an interdisciplinary, intersectoral, and international programme of doctoral training and research that drives the development of new leaders in excellence for the advancement of evidence-based innovation on ageing in place.

For more information, please visit <a href="https://homeage-dn.eu">https://homeage-dn.eu</a>.



#### **About Vilans**

Vilans is a national knowledge institution in the Netherlands focused on innovation and care, aiming to create spaces within healthcare. Vilans share the knowledge to advocate and apply for everyone's preferences in innovation. Vilans serves as a secondment partner for HOMeAGE Marie Skłodowska Curie doctoral trainee Nil Meral in her PhD.

For more information please visit <a href="https://www.vilans.org/">https://www.vilans.org/</a>







This project has received funding from European Union's EU Framework Programme for Research and Innovation Europe Horizon Europe (HORIZON) Marie Skłodowska-Curie Actions Doctoral Networks (MSCA-DN) under the grant agreement **101073506**