

## Participatory mapping in the STAGE project

Clémentine Schelings

- **Event: NGM 2024, The 10th Nordic Geographers Meeting, Transitioning geographies**
- Session: Geographies of age-friendly cities and communities in a transitioning world
- Date: June 25, 2024



# Overview of a newly started project

Context, objectives and methodology

#### The STAGE project

#### Context

- Horizon Europe funding
- 6-year project (2024-2029)
- Coordination by UOULU

#### Title

- ► Full title: "An Integrated Life-Course Approach for Person-Centred Solutions and Care for Ageing with Multi-morbidity in the European Regions"
- Short title: "Stay Healthy Through Ageing"





#### The STAGE project

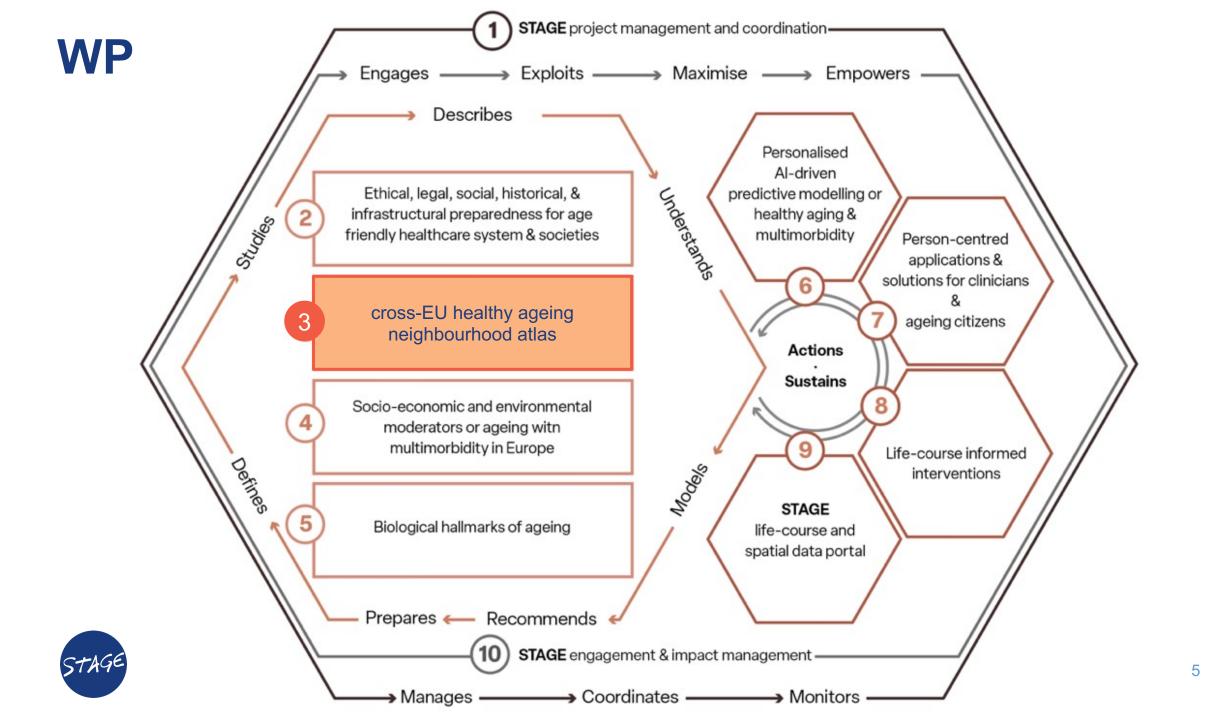
#### Project goals

- ▶ (1) Demonstrate the importance and feasibility of a life-course approach to better understand and prevent ageing with multimorbidity
- ▶ (2) Provide transferable person-centered solutions for early diagnosis and screening, treatment and long-term management of multimorbidity

#### Team

- ▶ A multidisciplinary team to integrate ethical, social, historical, infrastructural, environmental, epidemiological, biological, clinical, technological, geospatial, participatory, etc. aspects
- 22 partners including ULiège
- ▶ 10 work packages (WP) with various methods and different types of stakeholders: citizens, patients, healthcare providers, SMEs and policymakers





#### WP3 team





- Prof. Catherine Elsen (co-leader)
- Dr. Clémentine Schelings (lead researcher)





- Prof. Jeroen Lakerveld (co-leader)
- PhDs and post-doc researchers

+ UOULU, UNITO, WEDO, ERASMUSMC



## WP3 Healthy ageing atals

#### Hypothesis:

Age-friendliness of outdoor spaces and built environments positively impact the opportunity for older person to stay healthy and active through ageing.

#### Output:

Online interactive healthy ageing atlas ("heatmap"), based on cross-EU GIS data and iteratively assessed and enhanced through bottom-up seniors' participation.



T3.1 Systematic literature reviews



Senior-centered participatory approaches



T3.1
Systematic
literature
reviews

T3.2
Neighborhood
healthy ageing
index (NHAI)

Development of an initial evidence-informed neighborhood healthy ageing index (NHAI), based on quantitative data at the local and EU scales



T3.1
Systematic
literature
reviews

T3.2 Neighborhood healthy ageing index (NHAI) T3.3
Participatory
assessment &
calibration of
index

Qualitative co-design, evaluation and calibration of the NHAI in a participatory way, together with older adults and close caregivers on 2 pilot sites



T3.1
Systematic
literature
reviews

T3.2
Neighborhood
healthy ageing
index (NHAI)

T3.3
Participatory
assessment &
calibration of
index

T3.4
Development
of an interactive
healthy urban
ageing atlas

Europe-wide digital interactive healthy ageing atlas (from GIS and **participatory data**), prone to inform policy making and strategic urban development



T3.1
Systematic
literature
reviews

T3.2 Neighborhood healthy ageing index (NHAI) T3.3
Participatory
assessment &
calibration of
index

T3.4
Development
of an interactive
healthy urban
ageing atlas

T3.5
Implementation
of Healthy ageing
observatories

- ► Test of the applicability of recommendations
- Update of the online atlas beyond the duration of the STAGE project



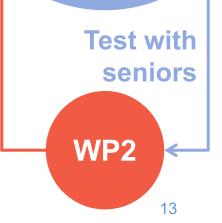
T3.1
Systematic
literature
reviews

T3.2 Neighborhood healthy ageing index (NHAI) T3.3
Participatory
assessment &
calibration of
index

T3.4
Development
of an interactive
healthy urban
ageing atlas

T3.5
Implementation
of Healthy ageing
observatories

Recommendations for healthcare and prevention policies





T3.1
Systematic
literature
reviews

T3.2 Neighborhood healthy ageing index (NHAI) T3.3
Participatory
assessment &
calibration of
index

T3.4
Development
of an interactive
healthy urban
ageing atlas

T3.5
Implementation
of Healthy ageing
observatories

Transferable methods /tools

Healthy ageing lab
WP10





## Participatory (mapping) approaches with seniors

In search of relevant literature

#### Literature review

Ongoing systematic literature review about participatory approaches with seniors in neighbourhoods

```
((participat* OR "co-design*" OR "co-creat*") PRE/5 (approach* OR tool* OR technique* OR method*))

AND ("older adult*" OR elder* OR senior OR "older people" OR "old adult*")

AND (neighborhood* OR ((urban OR rural OR built) AND (environment* OR space*)))
```

- ▶ 251 papers in total > 64 relevant abstracts
- Some papers about participatory mapping techniques
  - ▶ 7 are using maps as support for the participatory activities
  - ▶ 13 are using mapping techniques (PPGIS, photo mapping, route mapping, participatory mapping...)



#### A second, more focused SLR

Starting systematic literature review about participatory mapping with seniors

```
((( participat* OR collaborative OR "co-creat*" OR "co-design*" ) PRE/5 ( map* OR gis ) )
OR ppgis OR pgis )
AND ( elder* OR senior OR "older adult*" OR "old adult*" OR "older people" )
```



#### Many different interpretations

- ▶ 142 papers in total > 21 relevant abstracts (to be confirmed by second reviewer)
- ▶ 17 full-texts quickly screened (2 excluded)

System mapping Knowledge mapping Strategy mapping Evidence mapping Mapping pathway Service mapping Cognitive mapping Mind mapping Concept mapping Behavior mapping Theory mapping Consensus mapping Factors mapping Road map Cultural mapping Resources mapping Mapping patient journey Ripple effect mapping Intervention mapping Network mapping Process mapping



#### Potential approaches for STAGE

- ► Participatory mapping (Jarke 2021; Horak et al. 2022; Rzeszewski & Kotus, 2019)
  - ► Group (Lavalley 2023) / Community (Fang et al. 2016;2022) / Collaborative mapping (Nordin et al. 2022)

    Generally face-to-face meetings; paper format
  - ► PPGIS (Laatikainen et al. 2018; Gottwald et al., 2016) / Collaborative mapping (De Salazar et al. 2023)

    Generally online and individual; necessity for training
- ▶ Mapping probes (Jarke 2021): Generally one tool among a set and one step in a more global process
- Maptionnaire (Curl et al. 2020) / Survey map (Brookfield et al. 2020; Fang et al. 2022; (Scolozzi et al., 2015)
   Combining a survey with an online map to add locations
- Counter mapping (Thom et al. 2016)
   Alternative representation of the territory; necessity of a shared vision; importance of map legends
- ▶ 3D modelling (Rambaldi et al. 2007) / Model making (Brookfield et al. 2020): Adding a vertical dimension





#### THANK YOU







The views and opinions expressed in this presentation are those of the presenters and the Commission is not responsible for any use that may be made of the information it contains.



STAGE has received funding from the European Union's Horizon Europe Research and Innovation Programme under grant agreement no 101137146. UK participants in Horizon Europe Project STAGE are supported by UKRI grant numbers 10112787 (Beta Technology), 10099041 (University of Bristol) and 10109957 (Imperial College London).

#### REFERENCES

- Brookfield, K., Scott, I., Tinker, A., & Ward Thompson, C. (2020). Perspectives on "Novel" Techniques for Designing Age-Friendly Homes and Neighborhoods with Older Adults. *International Journal of Environmental Research and Public Health*, *17*(5), 1800.
- Curl, A., Fitt, H., & Tomintz, M. (2020). Experiences of the Built Environment, Falls and Fear of Falling Outdoors among Older Adults: An Exploratory Study and Future Directions. *International Journal of Environmental Research and Public Health*, 17(4), 1224.
- Fang, M. L., Sixsmith, J., Canham, S. L., & Woolrych, R. (2022). Aging in the Right Place: Participatory and Community Mapping for Collaborative Working and Knowledge Co-Creation. In P. Liamputtong (Ed.), *Handbook of Social Inclusion* (pp. 1255–1275). Springer International Publishing.
- Fang, M. L., Woolrych, R., Sixsmith, J., Canham, S., Battersby, L., & Sixsmith, A. (2016). Place-making with older persons: Establishing sense-of-place through participatory community mapping workshops. *Social Science & Medicine*, *168*, 223–229.
- Gottwald, S., Laatikainen, T. E., & Kyttä, M. (2016). Exploring the usability of PPGIS among older adults: Challenges and opportunities. *International Journal of Geographical Information Science*, 30(12), 2321–2338.
- Horak, J., Zajac, M., Kukuliac, P., & Maresova, P. (2022). Participative Mapping of Elderly Mobility and Distances to Their Favourite Destinations. *Proceedings of the 2022 International Conference on Big Data, IoT, and Cloud Computing*, 1–5.
- Jarke, J. (2021). Co-creating Digital Public Services for an Ageing Society: Evidence for User-centric Design (Vol. 6). Springer International Publishing.
- Laatikainen, T., Haybatollahi, M., & Kyttä, M. (2018). Environmental, Individual and Personal Goal Influences on Older Adults' Walking in the Helsinki Metropolitan Area. *International Journal of Environmental Research and Public Health*, 16(1), 58.
- Lavalley, R. (2023). Occupation's Role in Inclusion of Spanish-Speaking Older Adults in a Senior Center. OTJR: Occupation, Participation and Health, 43(1), 74–80.
- Nebot-Gomez De Salazar, N., Mora-Esteban, R., Conejo-Arrabal, F., Chamizo-Nieto, F., & Rosa-Jimenez, C. (2023). Collaborative Mapping of Urban Spaces for Active Ageing in the City: *Proceedings of the 9th International Conference on Information and Communication Technologies for Ageing Well and E-Health*, 208–215.
- Nordin, N. A., Zainol, R., Ahmad, F., Awang, S. N., & Razali, A. (2022). PARTICIPATORY ACTION RESEARCH ON THE HEALTH AND WELL-BEING BENEFITS OF COMMUNITY GARDENING: A STUDY OF RESIDENTS IN AN ISLAMIC ELDERLY HOME. *PLANNING MALAYSIA*, 20.
- Rambaldi, G., Muchemi, J., Crawhall, N., & Monaci, L. (2007). Through the Eyes of Hunter-Gatherers: Participatory 3D modelling among Ogiek indigenous peoples in Kenya. *Information Development*, 23(2–3), 113–128.
- Rzeszewski, M., & Kotus, J. (2019). Usability and usefulness of internet mapping platforms in participatory spatial planning. Applied Geography, 103, 56–69.
- Scolozzi, R., Schirpke, U., Detassis, C., Abdullah, S., & Gretter, A. (2015). Mapping Alpine Landscape Values and Related Threats as Perceived by Tourists. *Landscape Research*, 40(4), 451–465.
- Thom, B., Colombi, B. J., & Degai, T. (2016). Bringing Indigenous Kamchatka to Google Earth: Collaborative Digital Mapping with the Itelmen Peoples. Sibirica, 15(3), 1–30.