Annex 1: MINDMAP research teams

The **Department of Public Health from the Erasmus MC in Rotterdam** is a leading centre of public health research both within the Netherlands, and internationally and it is the coordinating centre of the MINDMAP project. They have extensive experience with large European comparative studies and they are experts on environmental influences on health and health behaviour.

The **Department of Global Health and Social Medicine from King's College London** in the United Kingdom, has world-leading expertise on global ageing, understanding the long-run impact of macro-economic shocks on the health of older people, and examining the health impact of social policies using longitudinal surveys and registry data.

Maelstrom Research from Research Institute of the McGill University Health Center in Montreal, Canada, is a leading expert on retrospective data harmonization and integration across studies. The methods developed by Maelstrom Research are applied and further improved within the MINDMAP project.

The **Department of Social Policy from the London School of Economics and Political Science**, in the United Kingdom, contributes unique knowledge on ageing research from a social perspective and can help to bridge the gap between research and policy.

The **Population Research Unit from the University of Helsinki** in Finland has wide-ranging experience with linking registry data, comparative studies, and areas effects on health.

The **Department of Epidemiology and Public Health from University College London** in the United Kingdom provides unique insight into understanding the determinants of health in Central and Eastern Europe and the former Soviet Union, in partnership with local investigators of the HAPIEE project in the Czech Republic, Russia, Poland and Lithuania.

The **Department of Public Health and Nursing from the Norwegian University of Science and Technology** offers vast expertise in large population studies and gene-environment interactions that benefit the MINDMAP project.

The **Department of Epidemiology and Biostatistics from the VU University Medical Center** is a leading centre of epidemiology of ageing and has a particular strong expertise on the social determinants of ageing.

INSERM, the French National Institute of Health and Medical Research in Paris is a work-leading institute on neighbourhood socioeconomic disparities in health and how multiple facets of the neighbourhood environment can influence health.
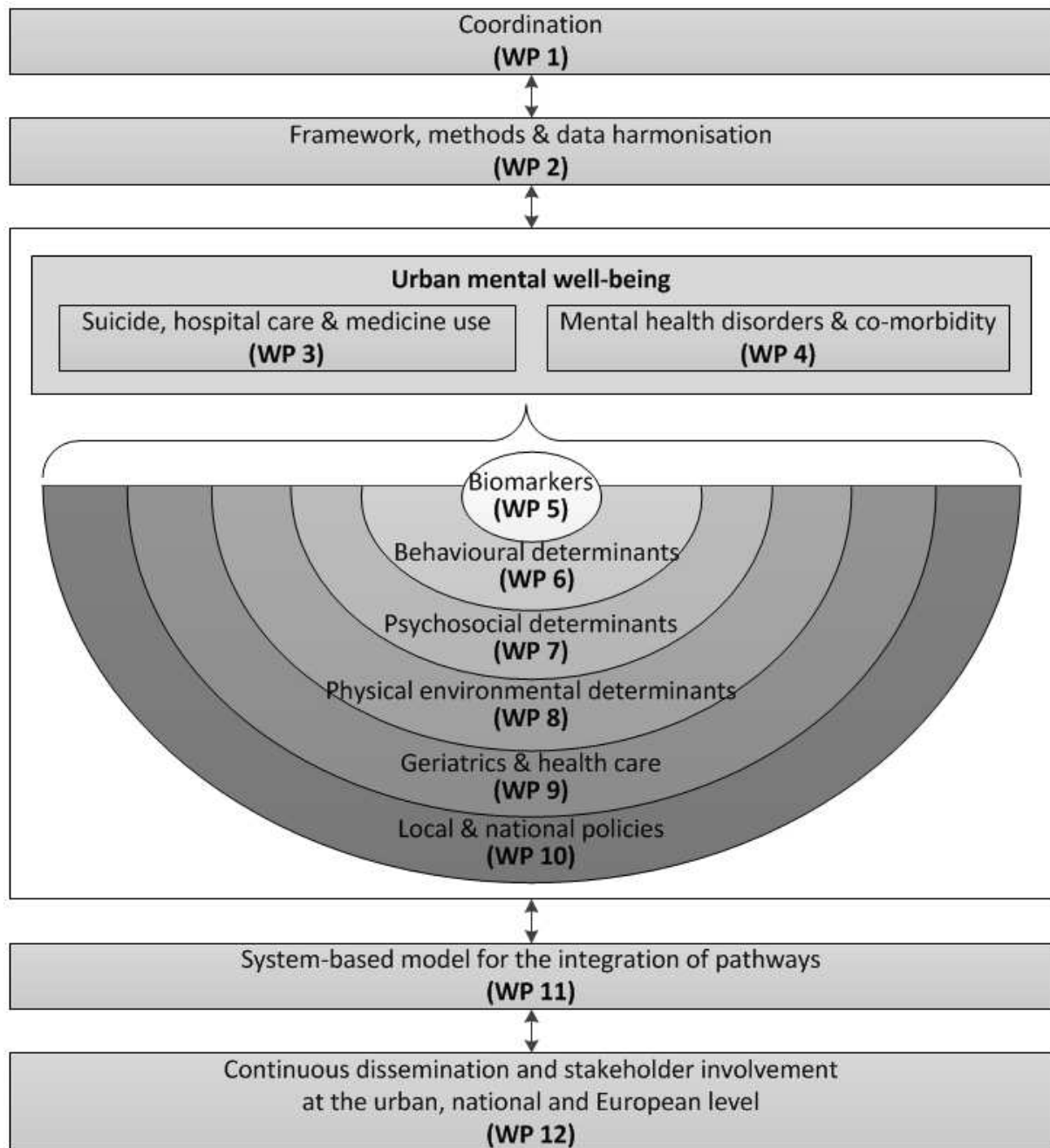
The **Geriatrics Research Department at the Albertinen-Haus and the University of Hamburg** are experts in geriatrics and functional ability within ageing population.

The **Department of Clinical Epidemiology and Biostatistics at McMaster University** in Hamilton, Canada has great knowledge on geroscience; the science to understand the processes of aging from cell to society.

The **Drexel University Dornsife School of Public Health** in in Philadelphia, Pennsylvania carries out world-leading research on social epidemiology by using novel methods in public health including agent based modelling.

The **Regional Epidemiology Unit ASL TO3 liaised with the University of Turin** in Italy has a wide expertise in the engagement of stakeholders at national and European level and in strategic communication with policy makers. They will help to valorise the results of the MINDMAP project.

Annex 2: Structure of the MINDMAP project

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│                      Coordination                            │
│                        (WP 1)                                │
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┌─────────────────────────────────────────────────────────────┐
│            Framework, methods & data harmonisation           │
│                        (WP 2)                                │
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│  ┌───────────────────────────────────────────────────────┐  │
│  │                Urban mental well-being                 │  │
│  │  ┌─────────────────────────┐ ┌─────────────────────┐   │  │
│  │  │ Suicide, hospital care  │ │ Mental health       │   │  │
│  │  │ & medicine use          │ │ disorders &         │   │  │
│  │  │      (WP 3)             │ │ co-morbidity        │   │  │
│  │  │                         │ │      (WP 4)         │   │  │
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│  └───────────────────────────────────────────────────────┘  │
│                                                              │
│                    Biomarkers                                │
│                     (WP 5)                                   │
│               Behavioural determinants                       │
│                     (WP 6)                                   │
│               Psychosocial determinants                      │
│                     (WP 7)                                   │
│           Physical environmental determinants                │
│                     (WP 8)                                   │
│               Geriatrics & health care                       │
│                     (WP 9)                                   │
│                Local & national policies                     │
│                     (WP 10)                                  │
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│        System-based model for the integration of pathways    │
│                        (WP 11)                               │
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│      Continuous dissemination and stakeholder involvement    │
│        at the urban, national and European level             │
│                        (WP 12)                               │
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Note: WP = Work Package

Annex 3: Overview of data

Domain	Subdomains	Source	Level of measurement
Mental health, well-being and cognitive outcomes	Life satisfaction, quality of life, depression and depressive symptoms, cognitive functioning, anxiety, loneliness	Cohort self-report and measurements	Individual
Sociodemographic variables	Age, sex, employment and retirement status, education, income, marital status, household structure	Cohort self-report and administrative data	Individual
Health behaviours	Alcohol consumption, tobacco use, diet and nutrition, physical activity, sleep quality	Cohort self-report	Individual
Social factors	Social and community support, social participation, social inclusion, major life event, home ownership	Cohort self-report and administrative data	Individual
Perception of urban environment	General neighbourhood safety, social trust, crime, social cohesion, deprivation	Cohort self-report	Individual
Other health outcomes (multi-morbidities)	Hypertension, Angina, myocardial infarction, stroke, BMI, perception of health, disability, medication use	Cohort self-report and measurements	Individual
Biomarkers and genetics	Genetics, inflammatory markers, neuroendocrine markers, blood lipids, glucose, vitamins	Cohort biological samples	Individual
Built environment	Density, land use, infrastructure (roads, walking and cycling paths)	European Environmental Agency, national and subnational data portals	Small area
Local services	Public transportation proximity, (healthcare) facilities	National and subnational data portals	Small area
Pollution	Air pollution, noise pollution	National and subnational data portals	Small area
Neighbourhood socioeconomic position	Average neighbourhood income, proportion of rental houses, neighbourhood unemployment	National and subnational statistical agencies	Small area

Neighbourhood composition	Age composition, gender composition, residential segregation	National and subnational statistical agencies	Small area
Social-interaction indicators	Social cohesion, criminality	National and subnational statistical agencies & governments	Small area
Social policy indicators	Old age pensions, employment protections, housing & social care	Swedish Institute for Social Research Social Insurance Entitlements Dataset (SIED), European Commission Labour Market Reforms Database (LABREF), European Commission Eurostat Databases, OECD Long Term Care Database	National
Urban policy indicators	Urban form, green spaces, transportation	OECD Metropolitan Indicators Database, European Commission Eurostat Urban Audit Database	City
Mental health policy indicators	Mental health system governance, resources & services, health insurances, promotion & prevention	World Health Organization Mental Health Atlas Country Profiles, World Health Organization European Office, European Health Information Gateway, Health for All Database, European Commission Eurostat Database, OECD Health Systems Characteristics Survey, OECD Health Statistics	National