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#Odessa2018

ODESSA PROJECT

End of award conference

23 February 2018

A WORLD
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SSoA

ODESSA: Optimising care delivery models to support ageing-in-place



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An international research venture investigating current long-term care delivery models for older people to allow them to live independently for longer (3/2015-2/2018)

ODESSA: Optimising care delivery models to support ageing-in-place



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Key issues (1/2)

1. Shrinking family size and more dispersed living arrangements.
2. The demand for in-house caring for older people.
3. Challenges of care provision at home.
4. Finding innovative care delivery models aimed at maintaining older people's safety and improving their quality of life for longer.
5. The physical environment is often a barrier to accessibility, mobility and independence.



Key issues (2/2)

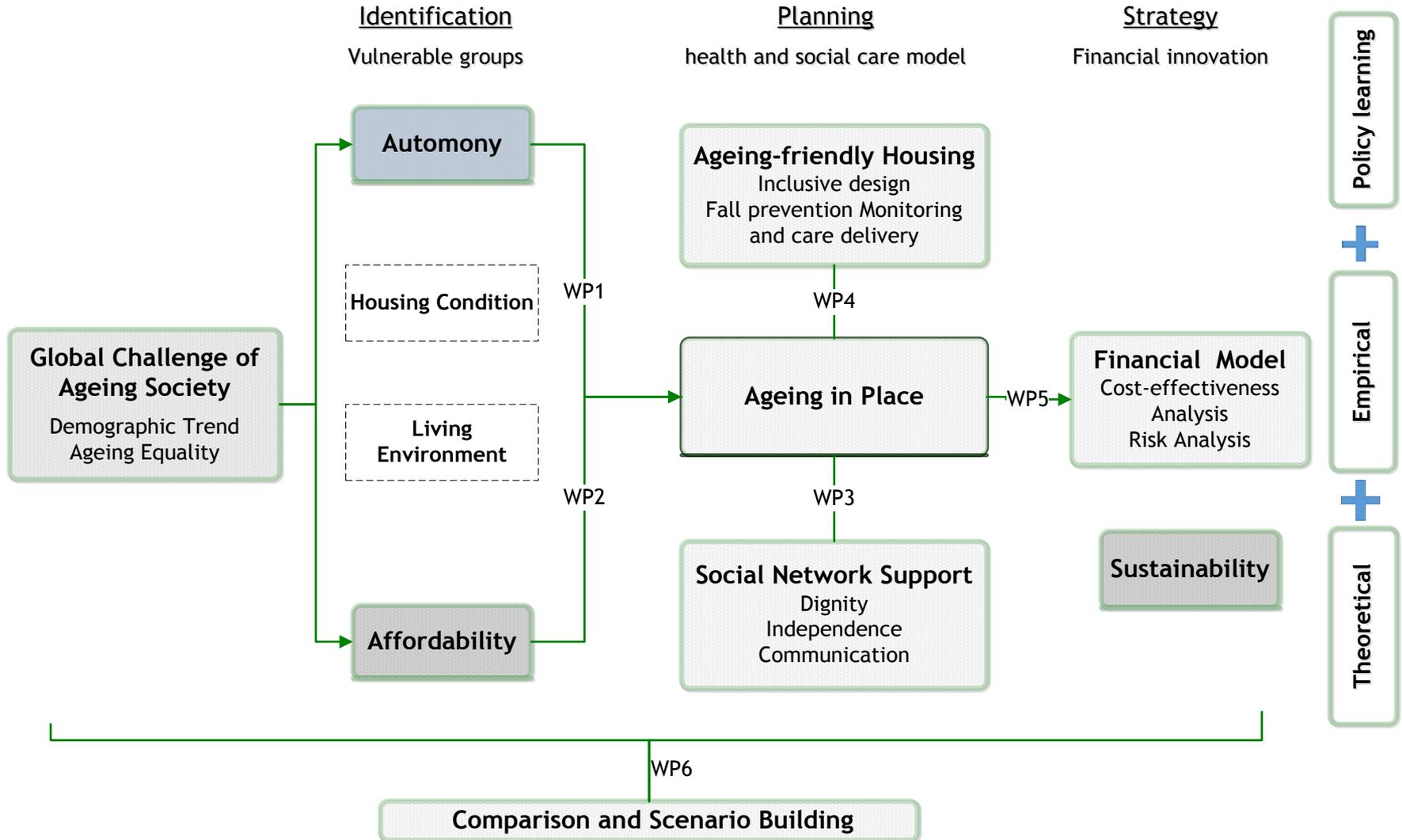
6. Overcoming isolation, keeping up social networks and accessing public services for older people within the community.
7. The costs of residential care and social service.
8. The challenges of retrofitting existing homes and their affordability.



ODESSA Project Aims

The project will develop **a comparative platform** to understand ageing-in-place in the three countries and to identify common features of **an effective system of integrated care** under different policy and society circumstances, and to examine the potential of such models to impact on and bring **improvement to care and living environment of older people**, and the public financial means to support these.

ODESSA Project Framework



Project Objectives

1. housing choices, needs, and preferences of older people.
2. the potential for engaging communities in effective and inclusive models of social care delivery to support healthy ageing.
3. design alternatives for age-friendly housing environments.
4. financial innovations for the long-term living arrangements of older people.
5. a framework for health and social care delivery mechanisms.

Work Packages

1. WP1: Older people's housing conditions and living arrangements.
2. WP2: Older people's housing and care expenses and residential mobility.
3. WP3: Care delivery and community support/connected communities.
4. WP4: Age-friendly housing environments.
5. WP5: Innovative financial channels to provide serviced-homes and promote ageing-in-place.
6. WP6: Comparative study and future scenario building.

Project Outputs & Pathways to Impact

1. Publicising user needs for consideration by care and housing providers.
 2. Data sets on patterns and types of social and community network links to support planning.
 3. Developing skills and competencies of young research staff.
 4. Linking research output to other initiatives such as the EU and Chinese Ageing Partnerships.
- Who will benefit from this research?
 - How will they benefit from this research?



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清华大学建筑学院与开新城市开发有限公司健康地产研发

Age-friendly Housing
Environments that
Support Ageing-in-place

University of Central Lancashire, UK
Odessa: Optimising the Delivery Models to
Support Ageing-in-place: Autonomy,
Affordability







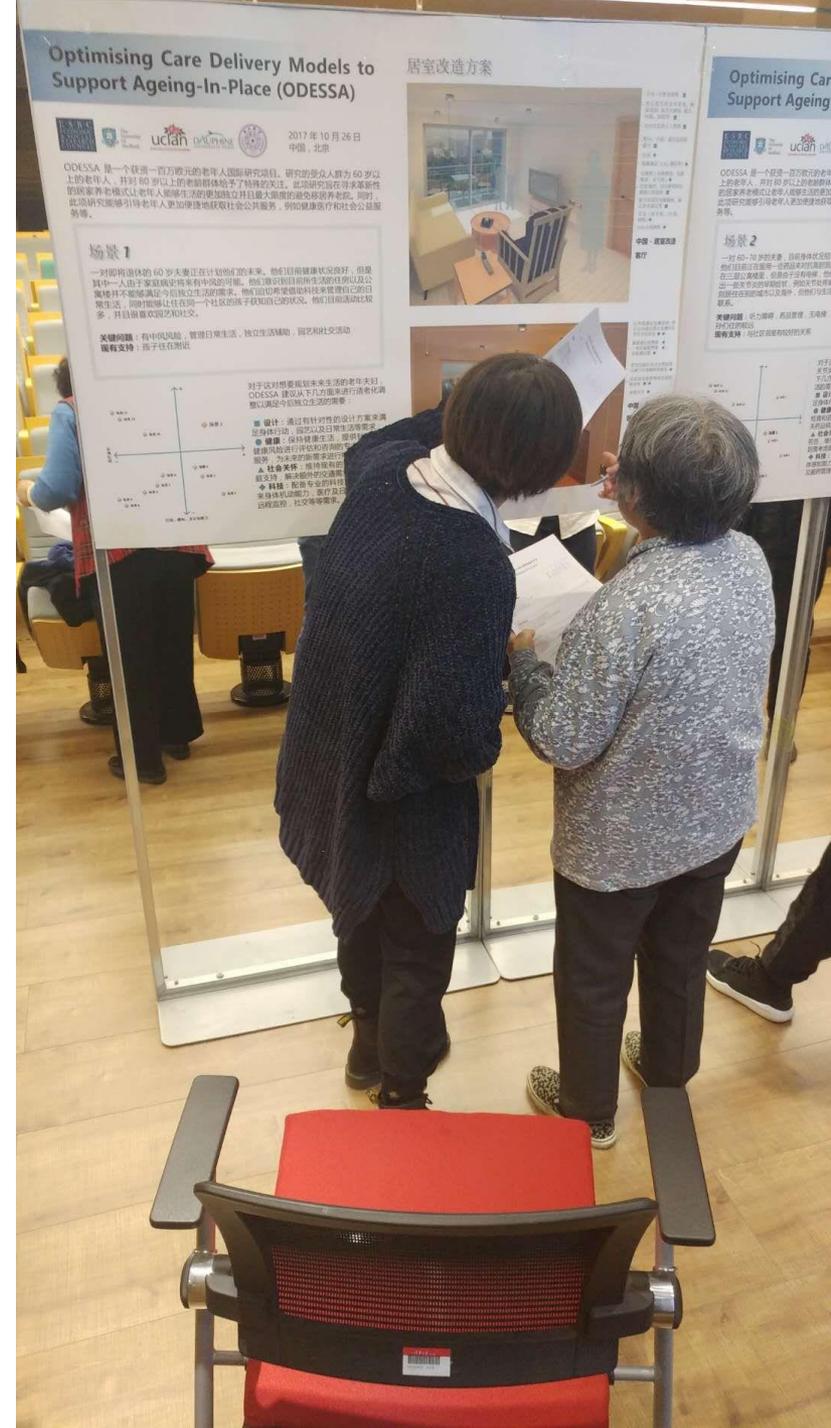


Public Health England

Developing a PHE approach to ageing and older people

- Changing demographics - within next 15 years will be more people in the UK over 65 than under 15
- Economic imperative - enable people to maintain independence and reduce pressure on health and social care
- PHE approach previously - focus on specific aspects of ageing (eg dementia, fall and weather response, end of life)
- PHE's data and intelligence on older people is minimal
- Recognition that we need a more coordinated approach

2. Public Health England - Ageing Strategy March 2017







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Conference publication



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Research report for
ODESSA Project

Conference Publication | Feb 2018

ODESSA

OPTIMISING CARE DELIVERY MODELS
TO SUPPORT AGEING-IN-PLACE









An international research venture investigating current long-term care delivery models for older people to allow them to live independently for longer.

CONTENTS

- **WP1:** Living arrangements of older people: causes and constraints
- **WP2:** Older people's housing and care expenses and residential mobility
- **WPs:** Healthy ageing-in-place: the role of social connection, networks and community belonging
- **WP4:** Age-friendly housing environments
- **WP5:** Innovative financial channels to promote ageing-in-place through property (dis)investment
- **WP6 - part 1:** Scenario building for living arrangements of older people in china - Multi-agent system analysis
- **WP6 - part 2:** Scenario building and evaluation for older people in China

The Sheffield School of Architecture

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PROJECT PARTNERS



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ODESSA PROJECT

Work package presentations

23 February 2018

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Content

1. WP1: Older people's housing conditions and living arrangements.
2. WP2: Older people's housing and care expenses and residential mobility.
3. WP3: Care delivery and community support/connected communities.
4. WP4: Age-friendly housing environments.
5. WP5: Innovative financial channels to provide serviced-homes and promote ageing-in-place.
6. WP6: Comparative study and future scenario building.



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WP1:

Living Arrangement of Older People: Causes and Constraints

Friday 23 February 2018, 9.30am-4pm
Mercure St Paul's Hotel & Spa, 119 Norfolk St, Sheffield S1 2JE

Presenter : Zan Yang

Institute of Real Estate Studies
Hang Lung Center for Real Estate
Tsinghua University

E-mail: zanyang@tsinghua.edu.cn



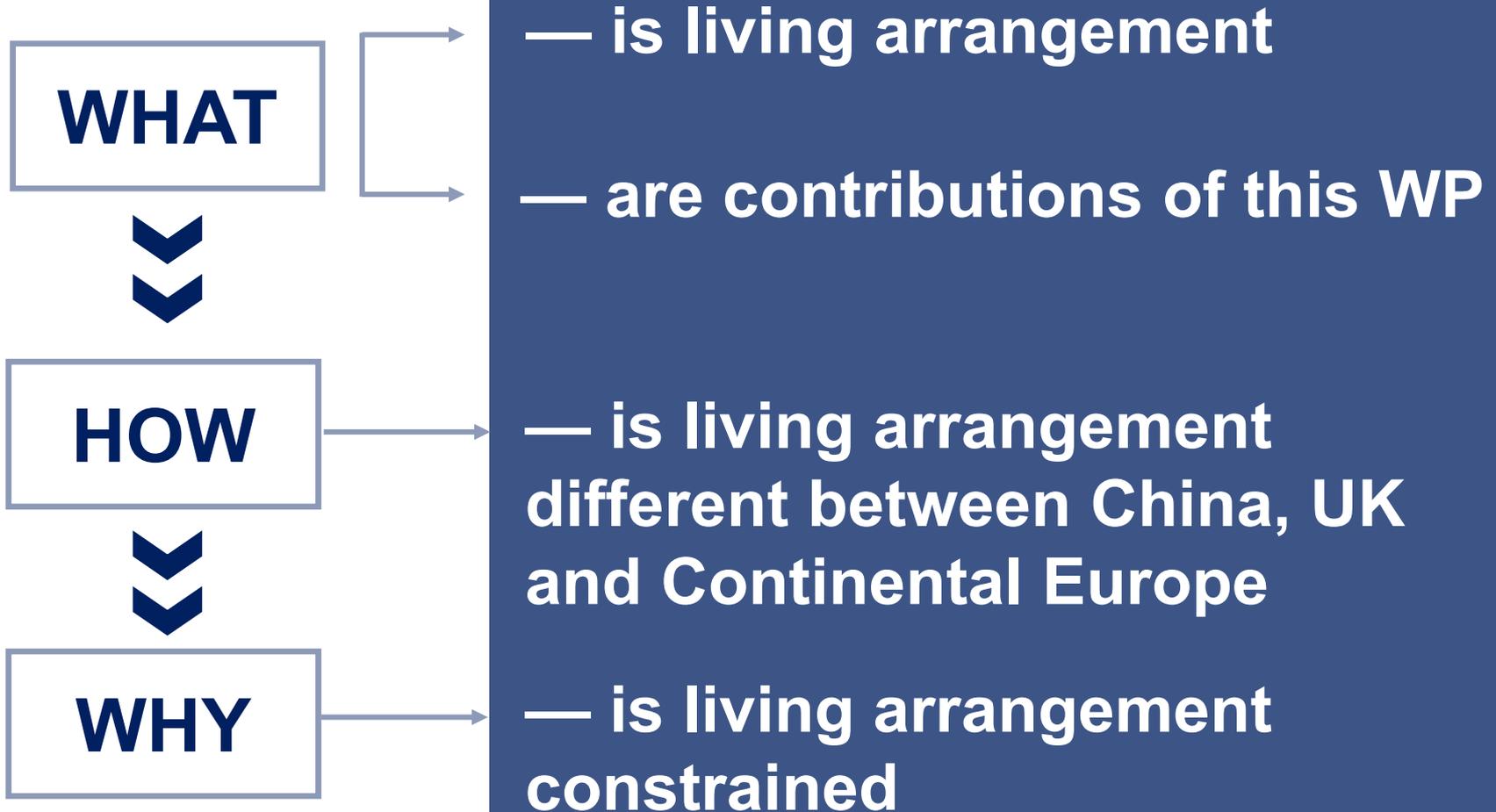
Objectives of WP1

WP1 members:
Zan Yang (WP leader)
Anne Laferrere
Louis Arnault
Cindy Hiu-ying
Cheung
Ying Fan
Shuai Fang

 To capture the causes,
decision-making process and
dynamic trend of the living
arrangements of older people

 To understand the commons
and differences in living
arrangements in China and
Europe

 To examine constraints on
living arrangements from
socioeconomic and community
perspectives



WHAT

- is living arrangement



- ◆ Target groups: the old people aged 60 or above.

Living Arrangement :

Where and how to live

It is more than just choosing a place to live

WHAT

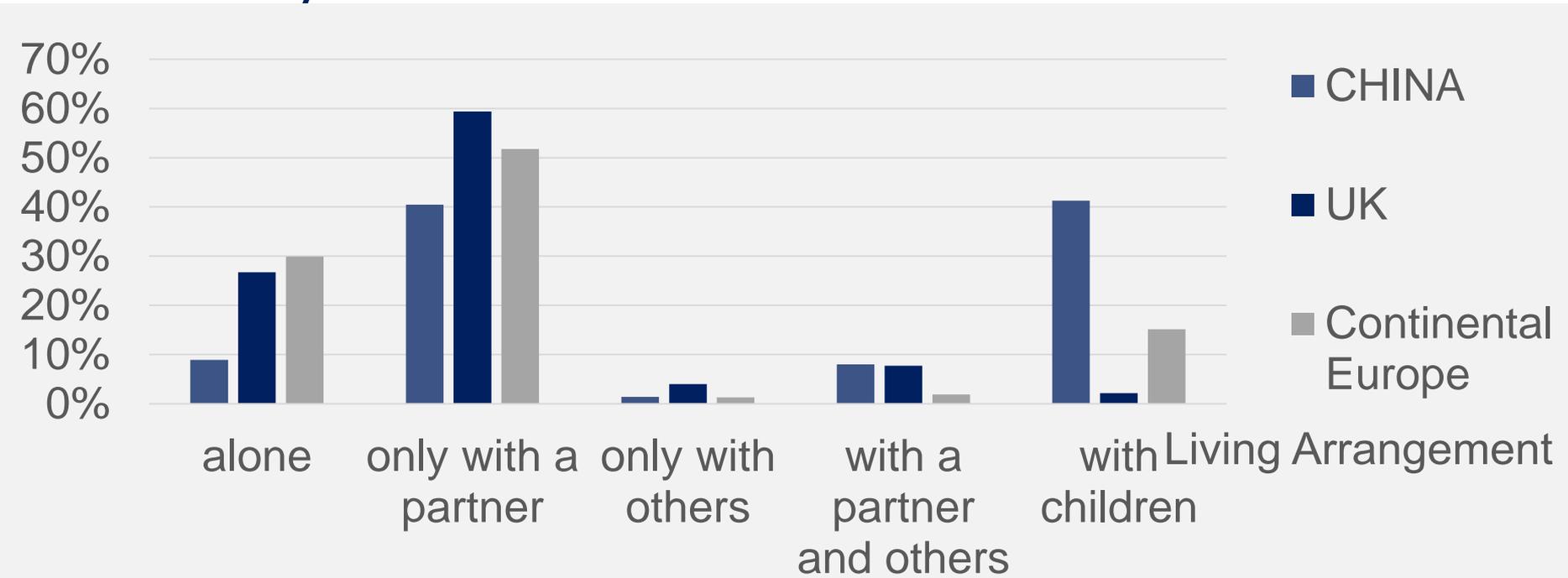
- is living arrangement

Categories of Living Arrangement



- ▶ Alone
- ▶ Only with a partner
- ▶ With Children
- ▶ Only with others

- ▶ **With Children**
 - Living together
 - Living near to
 - Living far away



Living arrangement of older people in China, UK and Continental Europe
 (Source: CHARLS wave 2011 and 2013, ELSA wave1-6, SHARE wave 1,2,4,5)

WHAT

- is the contributions of this WP



developed a theory on living arrangement of older people;



provided a comparative study on living arrangement for China and Europe;



conducted a survey on living condition and living arrangement in Beijing;



provided Data and descriptive statistics for other WPs.

- is different between China, UK and Continental Europe

Data and Methodology >>> Data

◆ Based on:

01

CHARLS (China Health and Retirement Longitudinal Survey) waves 1 and 2 in 2011 and 2013 , including 28 provinces



Data and Methodology >>> Data

◆ Based on:

02 ELSA (English Longitudinal Study of Ageing) waves 1 to 6 from 2002 to 2013

03 SHARE (Survey of Health, Ageing and Retirement in Europe) waves 1, 2, 4 and 5 from 2004 to 2013.

northern countries (Sweden, Denmark), *central countries* (Germany, Austria, France and Belgium, the Netherlands), *southern countries* (Italy and Spain).



HOW

- is different between China, UK and Continental Europe

Data and Methodology >>> Methodology

The factors influence living arrangements:

Personal characteristics



income, age, gender, education level, working status, preferences, health ...

Family features



norms and culture, number of children, income of children, grandchildren ...

Wealth issues



housing wealth, total financial wealth...

Policy legislations



health insurances, life insurances, living condition, region ...

HOW

- is different between China, UK and Continental Europe



Empirical results

Variables	China	UK	Europe	Variables	China	UK	Europe
Age	—	—	—	Partner	—		—
Age2	+		+	Number of children	+	+	+
Education	+	+		Home area	+		+
Gender (female)	—	—	—	Facility		—	
Health status	*		*	Health insurance	+		
Income	+	—	—	Life insurance			+
Wealth	—	—	+				
.....						

(Interpreted variable: whether to live with children, =1 if so, =0 if not. “—” means significant negative correlation, “+” means significant positive correlation and “*” means very important, but there’s uncertainty of direction due to the variable choices.)

HOW

- is different between China, UK
and Continental Europe



Key Findings: (effect on the likelihood of living with children)

Personal Characteristics

China :	education level ↑ health status: significant
UK :	education level ↑ health status: not important
Continental Europe :	education level: not important health status: important

... ..

Family Features

China and Continental Europe :	Living with a partner ↓
China, UK and Continental Europe :	Number of children ↑
	The size of a house ↑
China and UK :	The special facility of a house ↑

... ..

HOW

- is different between China, UK
and Continental Europe



Key Findings: (effect on the likelihood of living with children)

Wealth Issue:

China : The amount of the wealth of the older people ↓
Income of the older people ↑

UK : The amount of the wealth of the older people ↓
Income of the older people ↓

Continental Europe : The amount of the wealth of the older
people(nonlinear)
Income of the older people ↑

... ..

Policy Legislation

China and Continental Europe: the health insurance ↑
UK : neither health insurance nor life
insurance has a significant effect

... ..

WHY

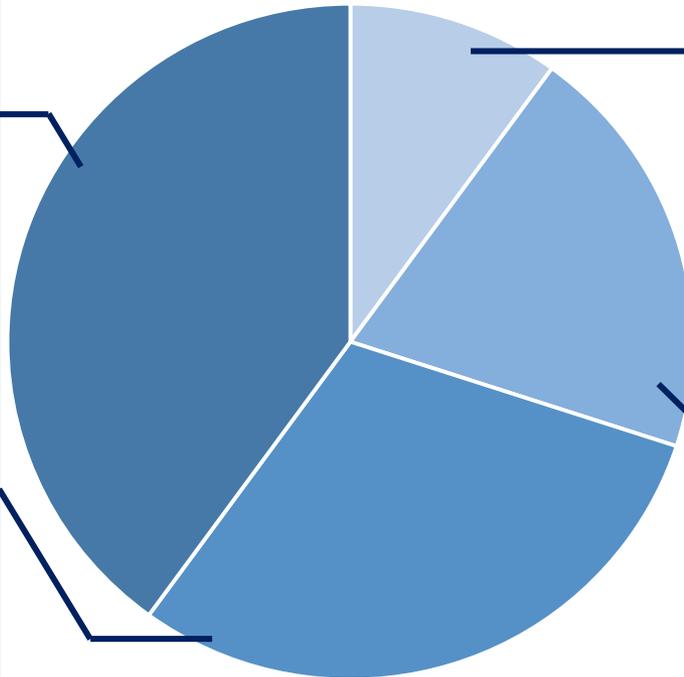
- the living arrangement is constrained



Consistent

35.09% :
prefer to and actually live together with child.

28.61% :
prefer to and actually live apart from child



Inconsistent

14.79% :
prefer to live apart but live together with child actually.

21.51% :
prefer to live together but live apart from child actually.

Methodology

The constraints of living arrangements in China

- We develop our utility maximization model by comparing the difference in the welfare state of two living arrangements.

The preference of living arrangement (under the co-resident situation) is included into the family weighted utility function.

$$V_p^{together} = \alpha \ln \frac{\alpha \theta A (Y_p + Y_c)}{(1 + \beta)(\theta A - \theta B + B)} + (1 - \alpha) \ln \frac{(1 - \alpha)(Y_p + Y_c)}{(1 + \beta)P}$$

$$+ \beta \ln \frac{\beta \theta A (Y_p + Y_c)}{(1 + \beta)(\theta A - \theta B + B) \varphi I}$$

- The cost-sharing of housing and expenditure reduction due to informal care is considered into joint budget constraint.
- $$V_p^{alone} = \alpha \ln \frac{\alpha Y_p}{1 + \beta} + (1 - \alpha) \ln \frac{(1 - \alpha) Y_p}{(1 + \beta)P} + \beta \ln \frac{\beta Y_p}{(1 + \beta)I}$$

WHY

- the living arrangement is constrained



Actual choice



preferred choice



Constraints of living arrangement



Economic and Financial ability

Absolute income, relative income between the older people and children



Health (Formal and informal caring support)

Health condition, informal care (especially care from daughters)



Housing

Lightening, emergency equipment, supporting facilities.....

Hypothesis 1: The correlation between older people income and the likelihood of living together is non-linear depending on older people's preference and the relative income between the older people and their children. **Hypothesis 2:** Given all else is consistent, the worse the health status of the older people, the greater the likelihood of living together.

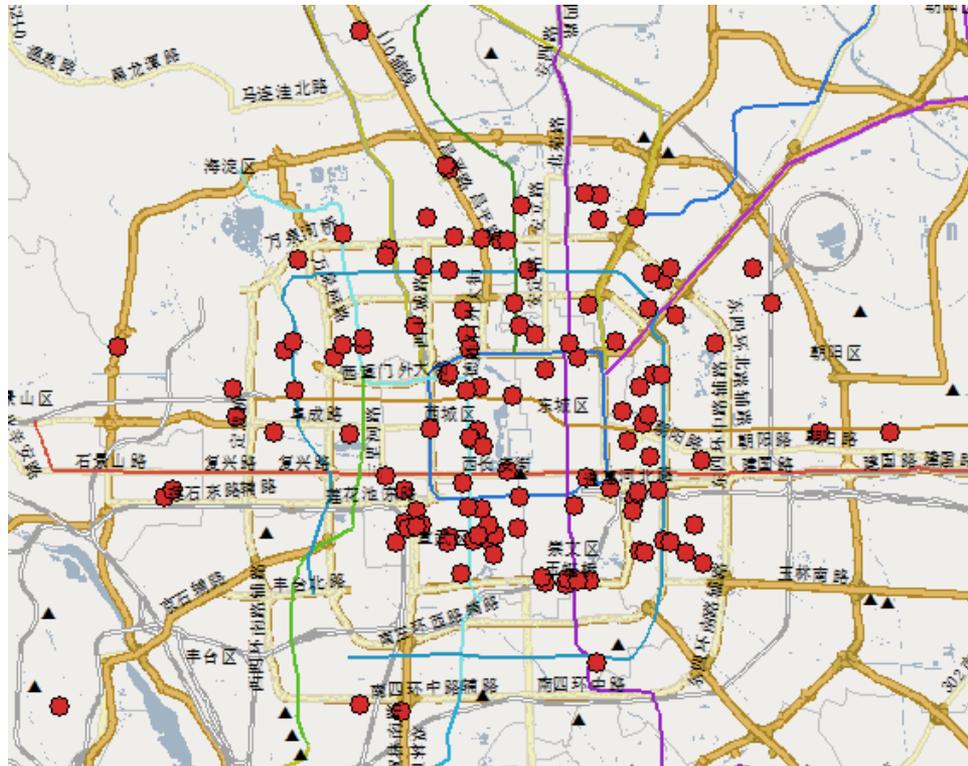
WHY

- the living arrangement is constrained



Housing

Lightening, emergency equipment, supporting facilities.....



Distribution of Residential Communities

(Source: Survey of the older people in Beijing conducted by WP1 team; Baidu API)

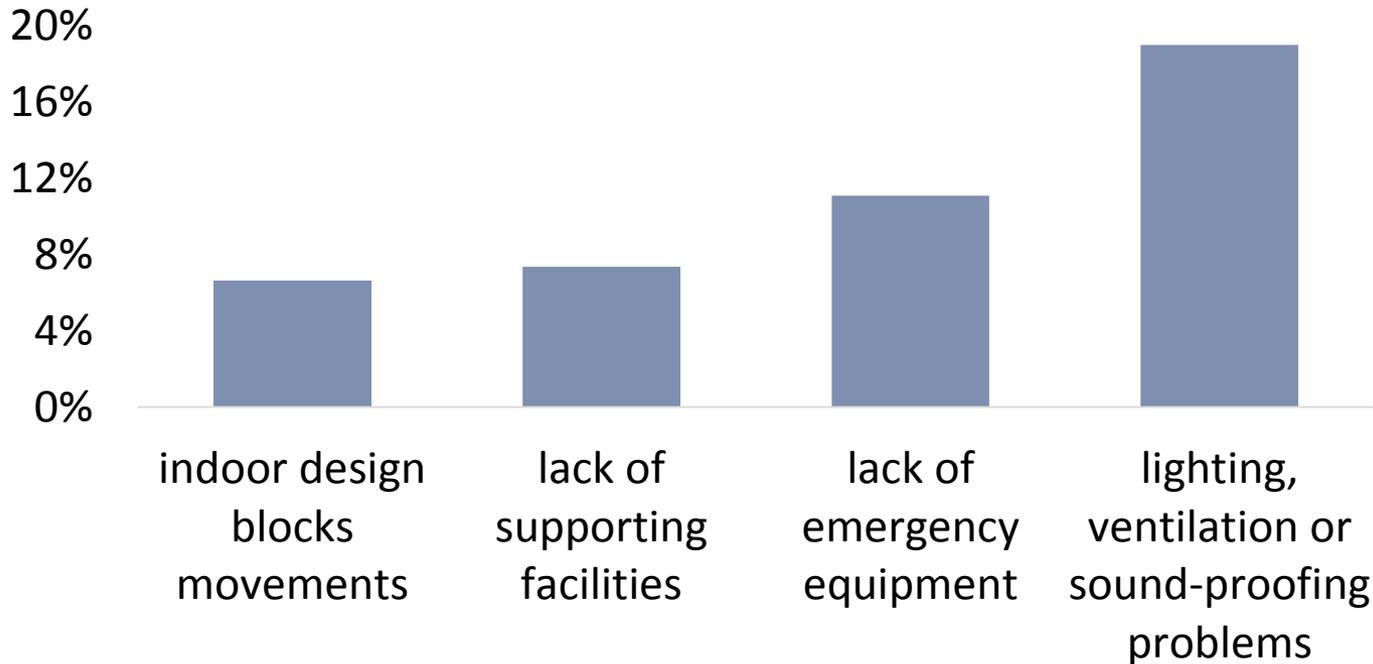
- the living arrangement is constrained



Housing

Lightening, emergency equipment, supporting facilities.....

poor housing conditions is an important constraint



The lack of supporting facilities and age-friendly room design significantly weakens the willingness of older people to age in place.

*Sources of dissatisfaction in residential community environment
(Source: Survey of the older people in Beijing conducted by WP1 team)*

WHY

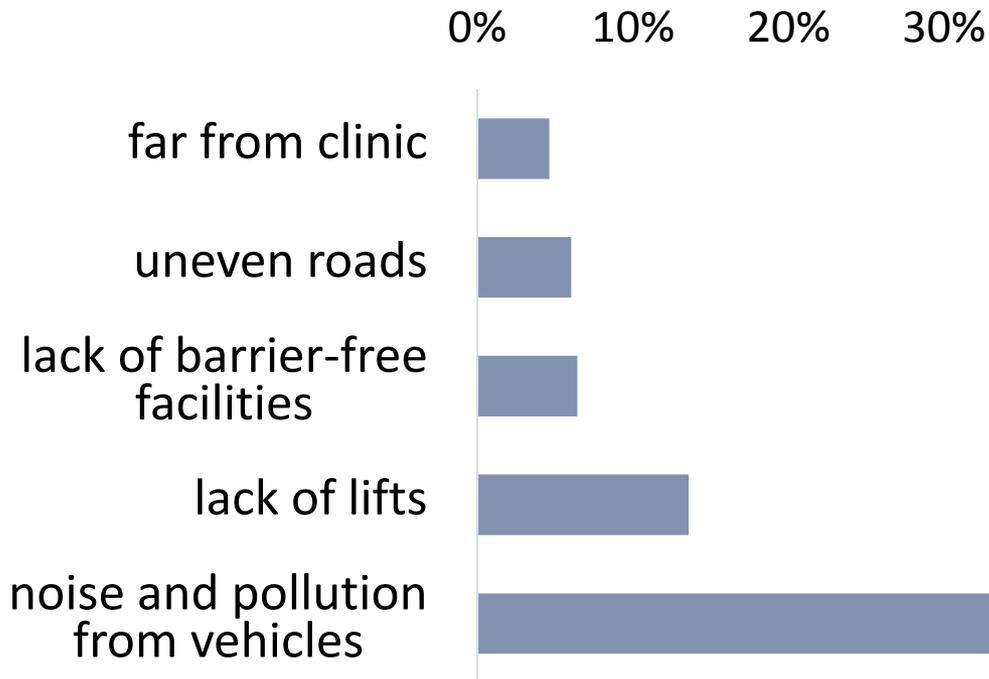
- the living arrangement is constrained



Housing

Lightening, emergency equipment, supporting facilities.....

poor housing conditions is an important constraint



The absence of lift in the multi-story buildings and noises are the key community-level factors that impede ageing-in-place.

The accessibility to hospitals is found significantly positive to the willingness to age in place.

Sources of dissatisfaction in housing conditions

(Source: Survey of the older people in Beijing conducted by WP1 team)

Thesis and Publications

Master thesis:

Cheung, C., H. (2016). Research on the Determinants of Older People Living Arrangements in China. Beijing: Tsinghua University.

Bachelor thesis:

Ren, L. (2014). Study on the elderly care choice and its influencing factors.. Beijing: Tsinghua University. (In Chinese)

Wang, L, Q. (2015). Research on the operation mode of old-age real estate.. Beijing: Tsinghua University. (In Chinese)

Li, L. (2016). A Comparative Study on Living arrangements of the Elderly and Its Determining Factors in China and Europe. Beijing: Tsinghua University. (In Chinese)

Lin, H. (2017). Study on the decision-making simulation of residential choice for elderly in China. Beijing: Tsinghua University. (In Chinese)

Journal Articles:

Fan, Y., Fang, S., Yang, Z. Living Arrangement of Elderly: A New Perspective from Choice Constrains in China. (R&R in China Economic Review)

Yang, Z., Fan, Y, Cheung, C H. Housing assets to the elderly in urban China: to fund or to hedge?[J]. Housing Studies, 2016:1-21.

Fan, Y., Cheung, H., Y., & Yang, Z. (2015). Microscopic empirical study on consumption patterns and wealth effect of housing from elderly households in urban China. Consumer Economics, 31(3), 39-42.(In Chinese)

Yang, Z., & Lin, Y. (2017). The economic feasibility studies of concession model of ageing-in-place in Beijing. Journal of Engineering Management, 31(2): 136-140. (In Chinese)

Lin, Y. (2017). The feasibility and operation model of PPP application on aging-in-place in China. Beijing: Master Thesis of Tsinghua University. (In Chinese)



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Thanks

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WP2:

Older people's housing and care expenses and residential mobility

Anne Laferrère (CREST and Univ. Paris-Dauphine)



1: Objectives: Assessing housing preferences

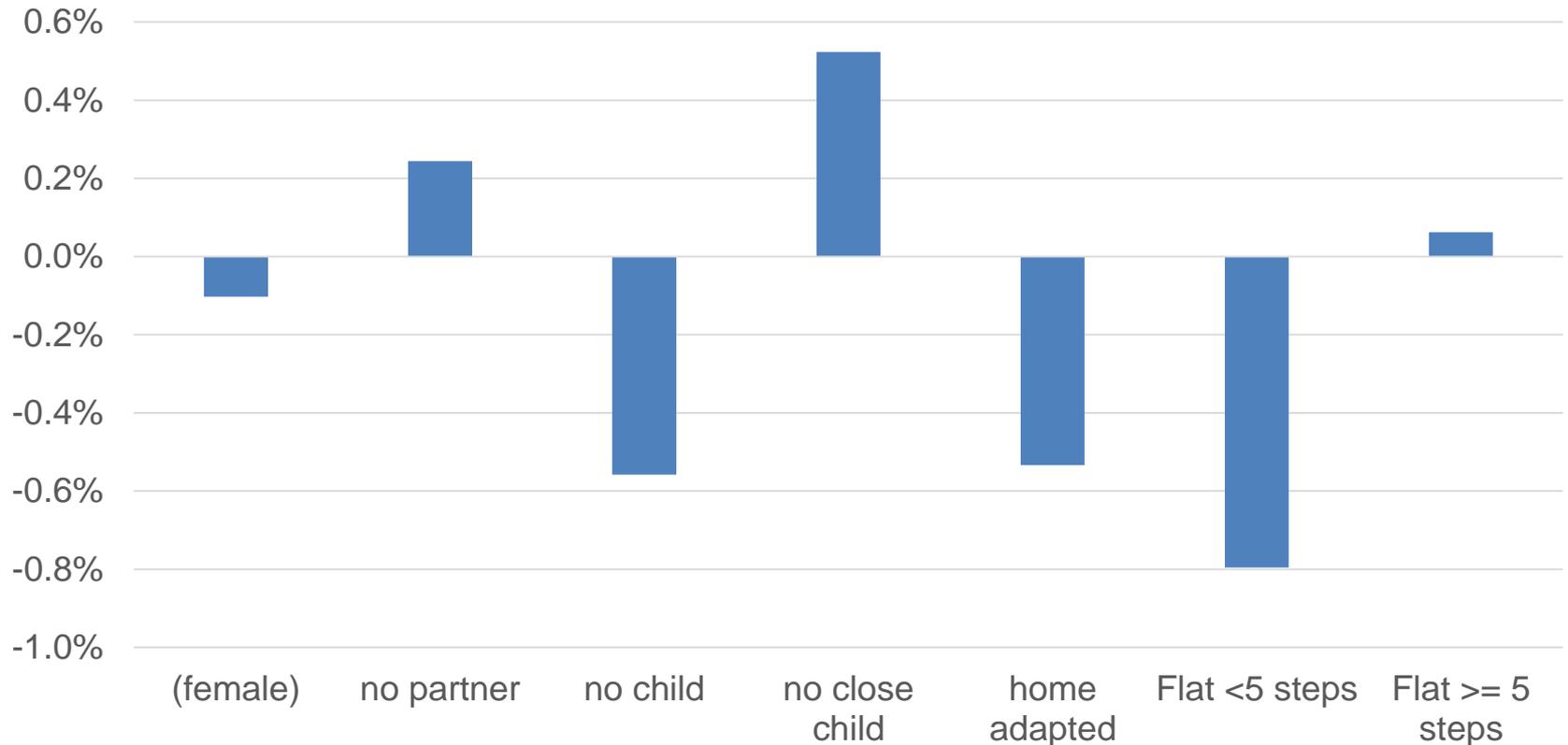
- Ageing-in-place: not necessarily in the same home
- Or move to a nursing home
- Residential choice based on taste for independence, on number of potential helpers, relative costs of accommodation, care, on type and level of current and expected disability, financial constraints, welfare state...
- **Help understand how to adapt dwellings, nursing homes, neighbourhoods, care delivery (and even financing)**

2: Methods, data and analysis: rely on longitudinal quantitative data

- Representative of the 60+, with health, housing, income, family information...
- **SHARE** (2004-15), **ELSA** (2002-13), **CHARLS**
- Econometric model (*multinomial logit*) of the two types of mobility between private homes and to residential care (NH)
- **Downsizing** (reducing # of rooms, moving to rent)
- **End of life mobility** to NH (special interview)

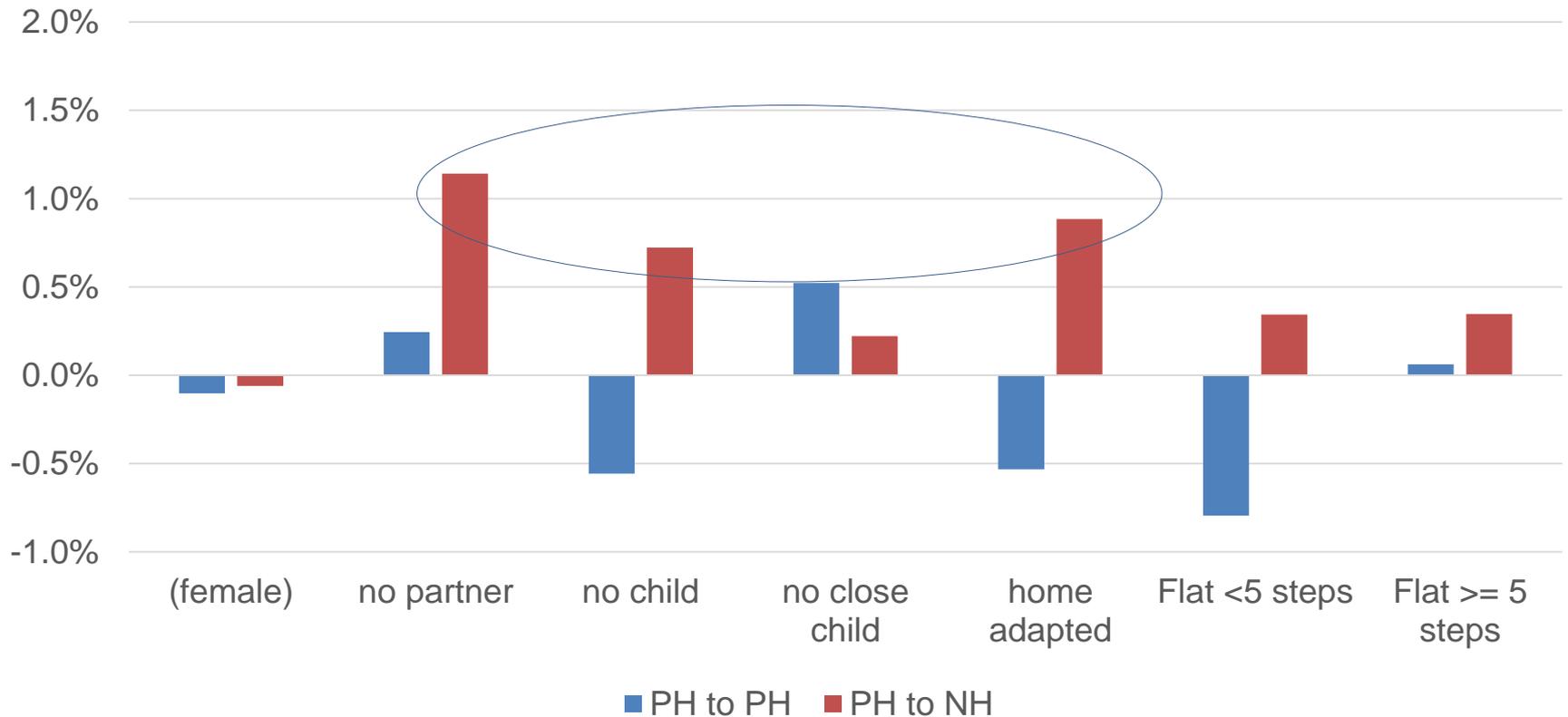
3. Results: mobility between private /nursing homes

(Average Marginal) Effect of the main explanatory factors of the respondents' probability of moving between private homes



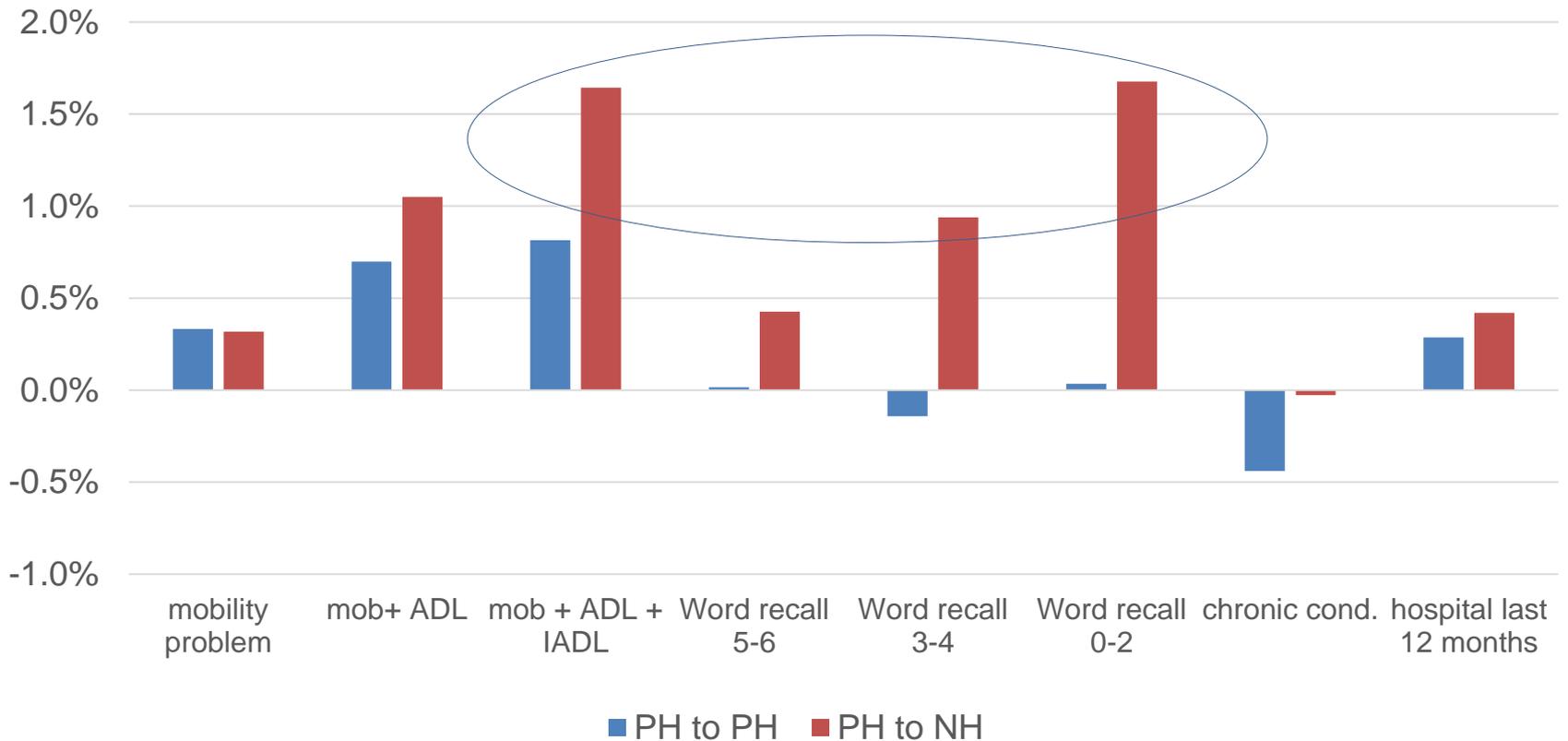
3. Results and discussion: mobility between private /nursing homes

(Average Marginal) Effect of the main explanatory factors of residential mobility to private home and to nursing home (1)



3. Results : mobility between private /nursing homes

(Average Marginal) Effect of the main explanatory factors of residential mobility to private home and to nursing home (2)





3. Results

- Mobility is low, **$\frac{3}{4}$ stay in same municipality**
- **Mobility to NH diminishes over cohorts** (*cet.par.*) showing a clear taste for “ageing-in-place”.
- The “**end of life**” mobility to a NH only depends on health and disability status , no more on income, wealth, education or family...
- More **downsizing** if income and wealth constraints



4. Future work

- More on **OOP expenditures** for health, care and housing to study the relative costs of choices between community and *communauté*.
- More on **home ownership** and what happens on a spouse's death (rent free, shared ownership with children...), "home equity" release, bequest motives...
- Replicate on **ELSA** data, then **CHARLS**



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WP3 Care delivery and community support/ connected communities

the role of social connection, community belonging & networks in healthy ageing-in-place



Professor David Morris, Dr Manjit Bola, University of Central Lancashire;

Dr Junjie Huang, Mr Aliyu Abubakar, University of Sheffield;

Professor Xiaomei Pei, Tsinghua University, China

Our Aim and Objectives

To assess the potential for engaging communities in effective and inclusive models of social care delivery to support healthy ageing with reference to the different policy contexts of the three partner countries, by advancing understanding of:

- what social and community network membership and activity means to older citizens and within this, gaining knowledge of factors particularly associated with enabling it: e.g. service access, wellbeing, trust;
- the types of accommodation settings and ways in which they are perceived in relation to community belonging and activity;
- the development pathways for future ageing-in-place that incorporate the evidenced value and utility of social and community network membership and how to optimise its effect.

Methodology

Mixed methods approach:

- Survey instrument developed to collect a range of data: personal, accommodation and connection and health status.
- Qualitative information to provide additional information on perceived enablers and barriers was collected through focus groups.
- Method based (UK and China) on 'Connected Communities'

www.thersa.org/discover/publications-and-articles/reports/community-capital-the-value-of-connected-communities

Connected Communities – key elements

- deliberative community engagement: community members are trained to undertake research in their own community
- social network analysis: network relationships revealed by community research data analysed, presented *inter alia* as social network maps (sociograms) and then
- ‘play back’ to community participants in dedicated meetings and selected focus groups for iteration, then
- developing, implementing and evaluating a local intervention

Methodology (2)

Sites selected for spread of demographic characteristics across three countries:

- **UK** - Stratford on Avon, Warwickshire; semi-rural; pop: 27.5 k (2011)
Norwich, Norfolk; small city and semi – rural; pop: 213 k (2011)
Tipton, W. Midlands, urban, pop: 39k (2011)
 - **China** - Ningbo, Zhejiang Province; urban; pop. 7.6 m (3.5m in urban district)
 - **France** - Evry, Essone, outer Paris; suburban; pop: 50k (2014)
- Community researchers (UK and China) trained - early 2016
 - Data collection across the three countries conducted - 2016/17
 - 764 surveys completed (UK: n.151; China: n.479; France: n.134)
 - 7 focus groups held March - October 2017 (3-10 researcher / service providers / research participants in each).



Older Peoples Community Centre and team Ningbo 22 Apr 2016



ODESSA presentation to local government officials and members of older people's community organisations, Ningbo, 22 Apr 2016

Methodology (3)

Data analysis – Quantitative:

- Statistical, correlations and principal component analysis (PCA), to reveal underlying relationship between different variables or variable sets.
- Key data variables identified by each country according to local research interest.
- Commonly concerned variables further led to comparative studies within the work package.

Data analysis – Qualitative:

- systematic thematic analysis using coding frame developed from survey instrument questions, to enable comparison and synthesis of data across community researcher teams.



Methodology (4)

Section 1	Section 2	Section 3	Section 4
1.1 age	2.1 years in present accommodation	3.1.1 self-assessed health level	4.1 community belonging
1.2 gender	2.2 years in present town	3.1.2 number of health conditions	4.2 organisational or place-based barriers
1.3 partnership status	2.3 specific housing provision for older people	3.2 activity limitation level	4.3 internet and social media usage
1.4 education level	2.5 home ownership	3.3.1 surgery	4.4 trust in people
1.5 spouse education level	2.6 council housing living condition	3.3.2 care from a GP	4.5 number of activities involved
1.6.1 retirement status	2.7 live with others	3.3.3 care from a specialist physician	4.6 feel lonely
1.6.2 employment status	2.8 satisfied with comfort	3.3.4 drugs	
1.7.1 retirement status of spouse	2.9 satisfied with transportation	3.3.5 dental care	
1.7.2 employment status of spouse	2.10 satisfied with amenities	3.3.6 hospital inpatient rehabilitation	
1.8 recency of retirement	2.11 special feature at home	3.3.7 ambulatory outpatient rehabilitation	Section 5
1.9 recency of spouse retirement	2.12.1 personal vehicle using frequency	3.3.8 aids and appliances	5.1 helper connection size
1.10 self-assessed income sufficiency	2.12.2 bicycle using frequency	3.3.9 care in a nursing home	5.2 unique helper coefficient
1.11 number of children	2.12.3 someone drives around frequency	3.3.10 home care	5.3 domain coefficient
1.12 closeness to child	2.12.4 public transportation using frequency	3.3.11 paid home help	5.4 helper support coefficient
1.13 frequency of contact with child	2.12.5 community transportation using frequency	3.3.12 any other care not mentioned	5.5 sum(Single helper's support strength)
	2.12.6 walking frequency	3.4.1 professional or paid nursing and personal care	5.6 type coefficient
	2.12.7 private transportation using frequency	3.4.2 professional or paid home help	5.7 total helper strength
	2.12.8 motorised bicycle/tricycle using frequency	3.4.3 meals on wheels	
	2.13 car ownership	3.4.4 help with paperwork	Section 6
	2.14 maintain current home	3.4.5 other help	6.1 place connection size
			6.2 sum(Single place support strength)
			6.3 place type coefficient
			6.4 total place support strength

Findings

Community belonging

- found to be positively associated ($p \leq 0.01$) with respondents' neighbourhood trust level; the level of place connectivity; the number of activities with which an individual is involved; the extent to which they are currently secure in maintaining a life at home and to a lesser degree ($p \leq 0.05$) with whether they have provision at home of officially provided care or support.

Neighbourhood trust

- found to be positively associated ($p \leq 0.01$) with increasing age; level of good health (self-assessed) and the least number of health conditions; absence of organisational or place-based barriers; extent of community belonging; level of satisfaction with extent of comfort within the home environment and to a lesser degree ($p \leq 0.05$) with proximity to an adult child; number of activities in which involved; the place connection size; frequency at which they walk and level of internet and social media usage.

Loneliness (being lonely)

- found to be associated *positively* with the reporting of organizational/place-based barriers (such as bullying in sheltered housing; difficulties in accessing church services; poor availability of transport); whether receiving professional nursing and personal care; whether receiving care from a specialist physician and the number of health conditions.
- found to be associated *negatively* with home ownership; partnership status (having a partner); living in specific /specialist older people's accommodation; frequency of contact with an adult child; the degree of satisfaction with available transport and the size of the network of any carer that the individual has.

Social network participation Perspectives on the value and importance of social network participation, (including significance of relationship between family and community components) were explored in focus groups (UK and China). These highlighted:

1) the importance of a catalyst in realising access to social networks and opportunity:

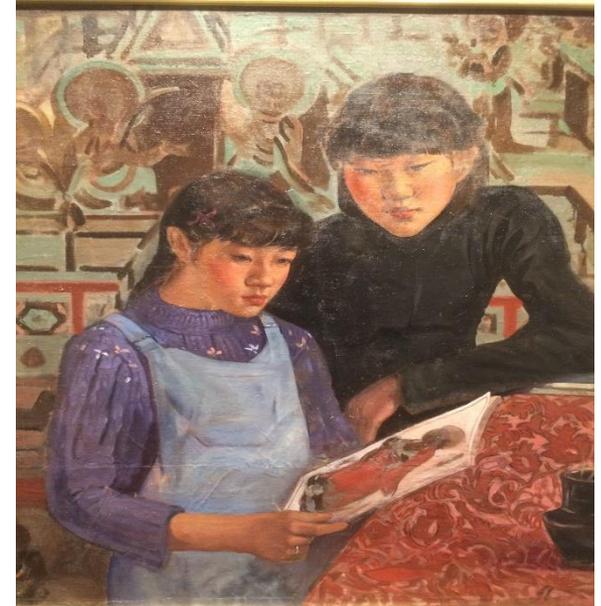
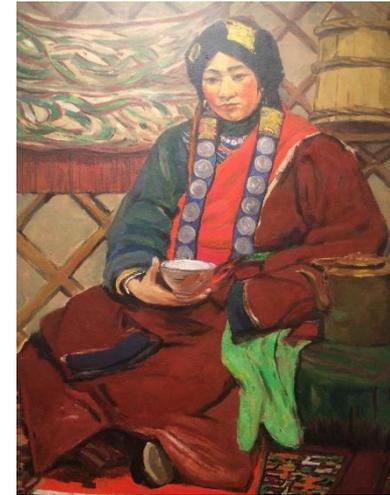
“Making and keeping social interactions is a skill which if unpractised will deteriorate. Engaging in social interaction / groups will in itself grow the social skills of the community and nourish / encourage new social groups and networks. Older people need to be encouraged to develop and use their social skills as part of pathway into old age and as part of the ‘wider strategic social plan’” (UK).



Findings (4)

...the importance of a *catalyst* (cont):

the significance of family connectivity as the catalyst for other forms of social participation (e.g. grandchildren relationships may have multiple primary value and secondarily enable realisation of other positive ageing-in-place benefits such as social media literacy, or *negative* value in generating a child care - based impetus for severing long established, locality network ties for elders).



Findings (4)

2) the value of mainstream places and ordinary activities in providing social network opportunities:

“I usually see Gladys at the butchers and after that John at the post office. Certain common times develop around these locations when their social groups were more likely to be there. Key amongst such locations were where respondents got cash, be it the post office or building society or where they shop. Butchers, supermarkets, cafes libraries and in particular doctors and health providers all adopt a social function far in excess of their original purpose” (UK)

3) constraints to providing support, can be strongly linked to systems of service organisation:

“Lack of a linked up approach to delivering ‘older people provision’ across both time and geography. Many charities housing providers and social service seen to compete for clients rather than strategically plan” (UK)

Findings (5)

4) the vital nature of accessibility in social interaction:

‘Accessibility is a vital component in building and maintaining social groups and interactions. ... Social networks must either come to the older people or the older people have to want to find ways to get to where social interactions take place. These don’t just happen they have to be made to happen either by the older people themselves or by some intervention’

‘....Social interaction needs social scaffolding around which the older people can build their lives and own social circles. A vibrant older people community requires places to go and to interact that are accessible’ (UK).

5) how shifting demographic trends drive architectural housing solutions that can work against social network participation:

‘The differences between rural and urban area (some residents moved from rural area. Their original living environment is flat, which allows them to get familiar with neighbours. But now they all live in high raised building, which is quite different. Families are isolated.’ (China)

6) the value of volunteering and keeping active in later life in relation to social participation.

E.g: i) Innovative use of older people volunteers from Ningbo community centres in working with pairs of trained student Community Researchers;

ii) UK's volunteer community researchers.

Multiple (and culturally specific) explanations for volunteering were cited in focus groups:

‘My involvement in the study came about as a consequence of my role as a Trustee/Director of Age UK Norwich. I was born in Norwich the public sector has been good to me over the years. Participating was in part about putting something back’ (UK).



'The Chinese traditional ideological education helped them build up the thought to serve people, to help others, so they are willing to participate in volunteer works'
(China)

'I've enjoyed being a community researcher; it's given me an insight into the issues affecting older people. It's been good for me and I've learnt a lot. I've made some good friends through the process' (UK).

'It (volunteering) can help old people connect with their community' (China)



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Thank
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WP4:

Age-friendly housing environments.

Karim Hadjri; Tulika Gadakari; Junjie Huang;
Jingjing Wang.

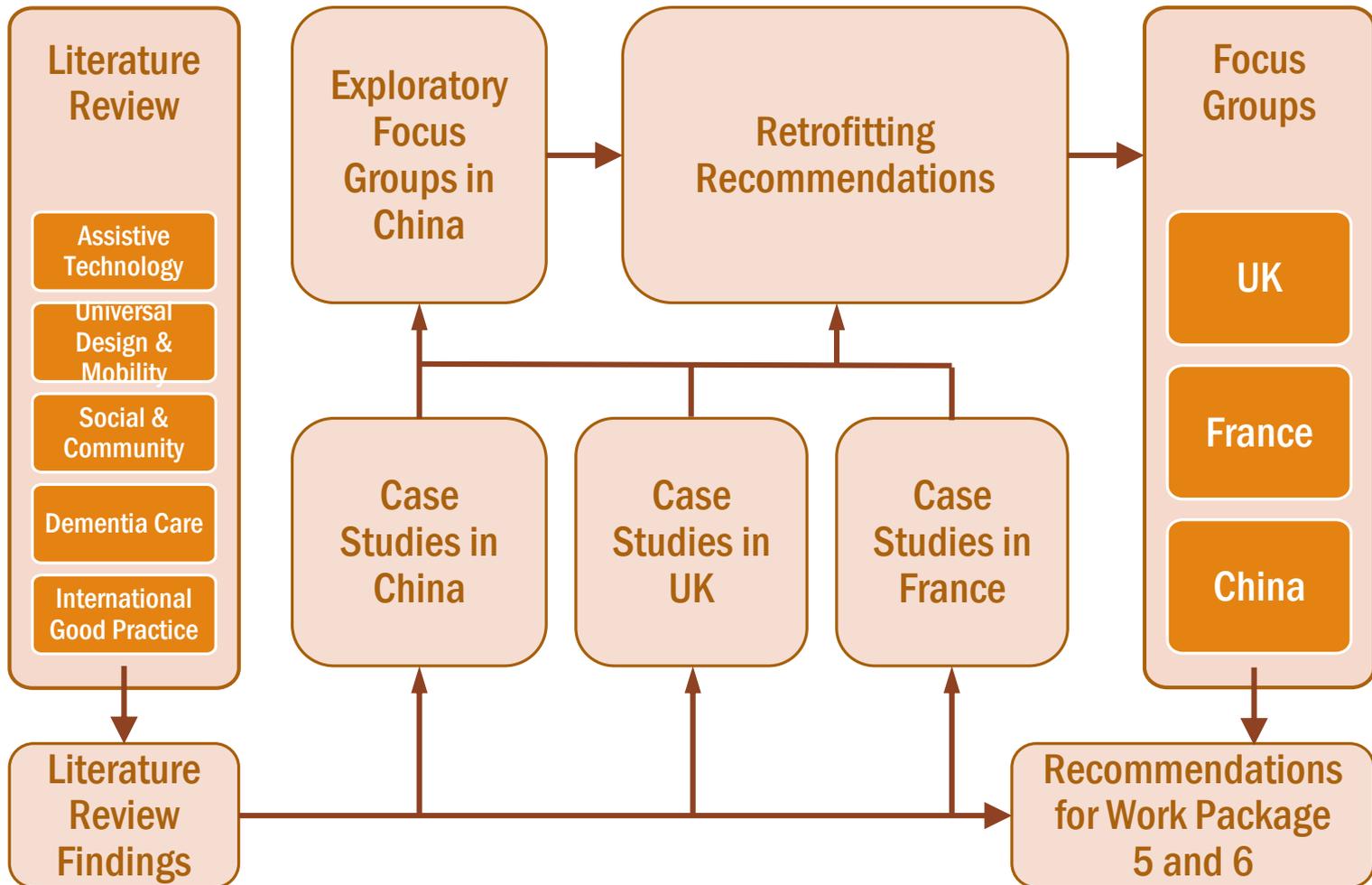
3D visuals: Zak Nicoll

Infographics: Yanisa Niennattrakul

WP4 Objectives

1. Review best practice **age-friendly and smart homes** in EU (UK, France, NL) and China.
2. Establish whether there are practical replications, similarities or differences between the countries.
3. Propose design alternatives and guidelines for age-friendly housing environments that support **ageing-in-place**.

WP4 Methodology



WP4 Exploratory Focus Groups, Beijing

Total: 4 focus groups
3 with middle-income.
One with a low-income
community in Beijing





WP4 Exploratory Focus Groups, Beijing

Themes:

Accessibility

Sensory

Cognitive

Technology

Social inclusion

Care

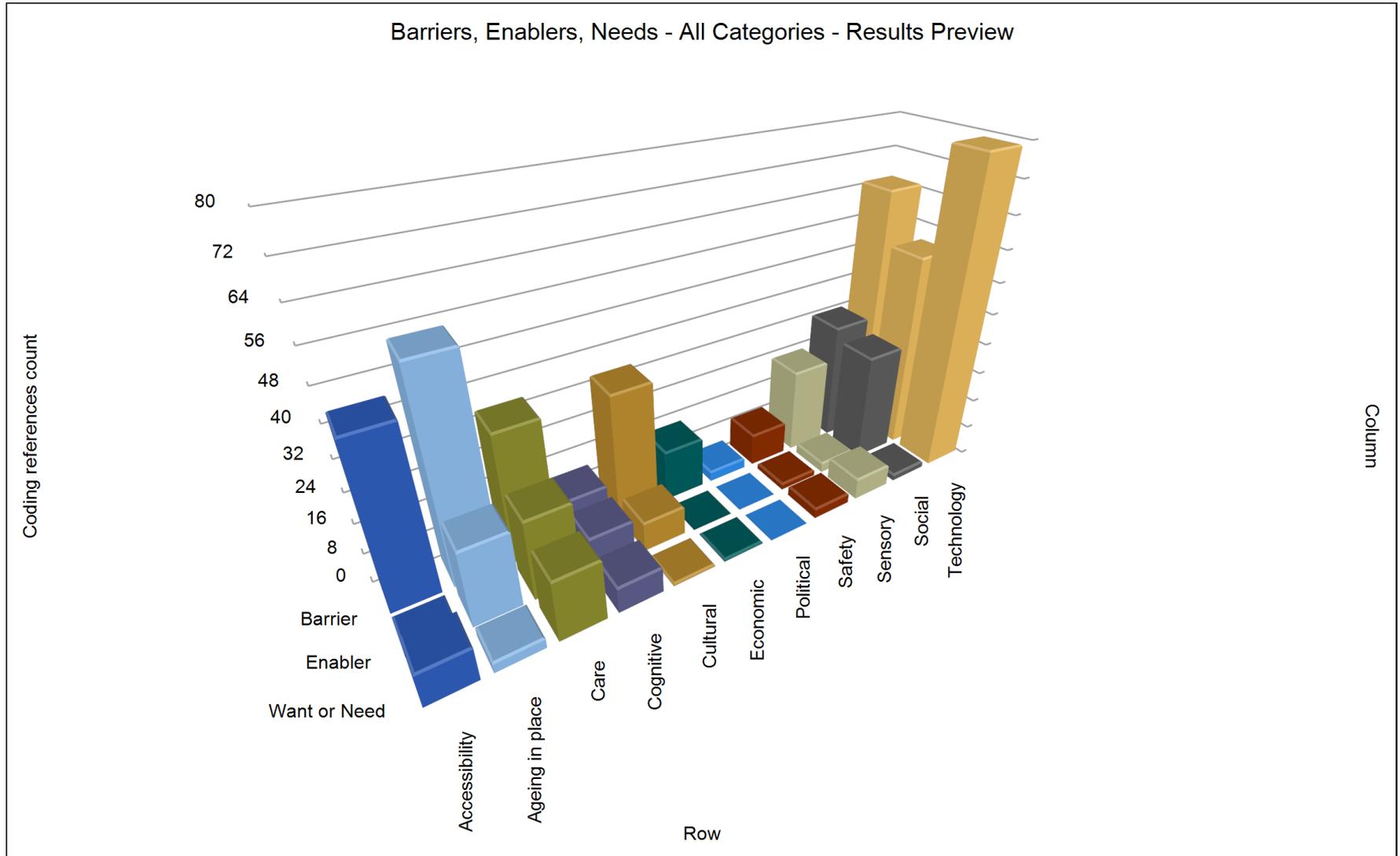
Safety

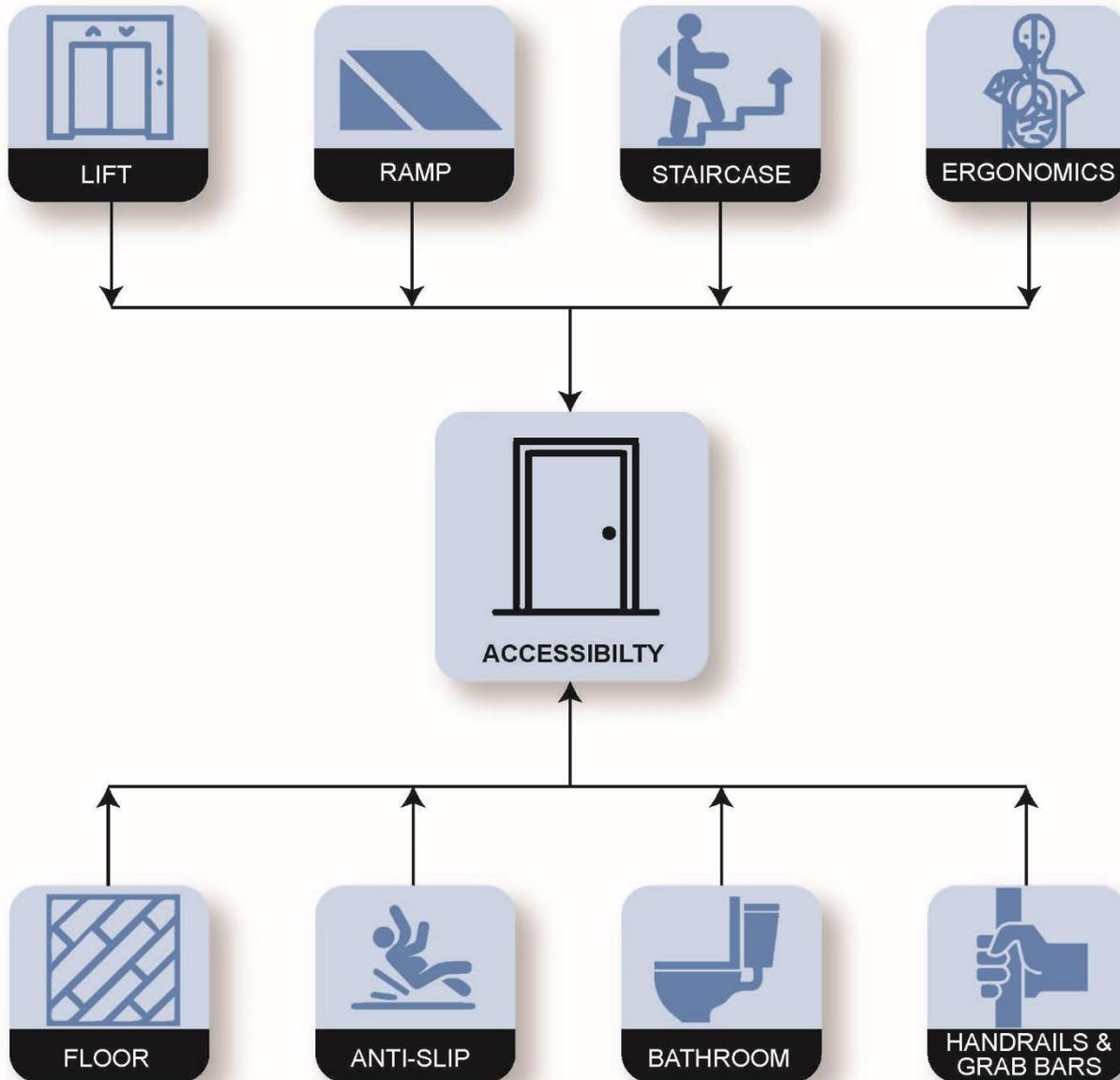
Cultural

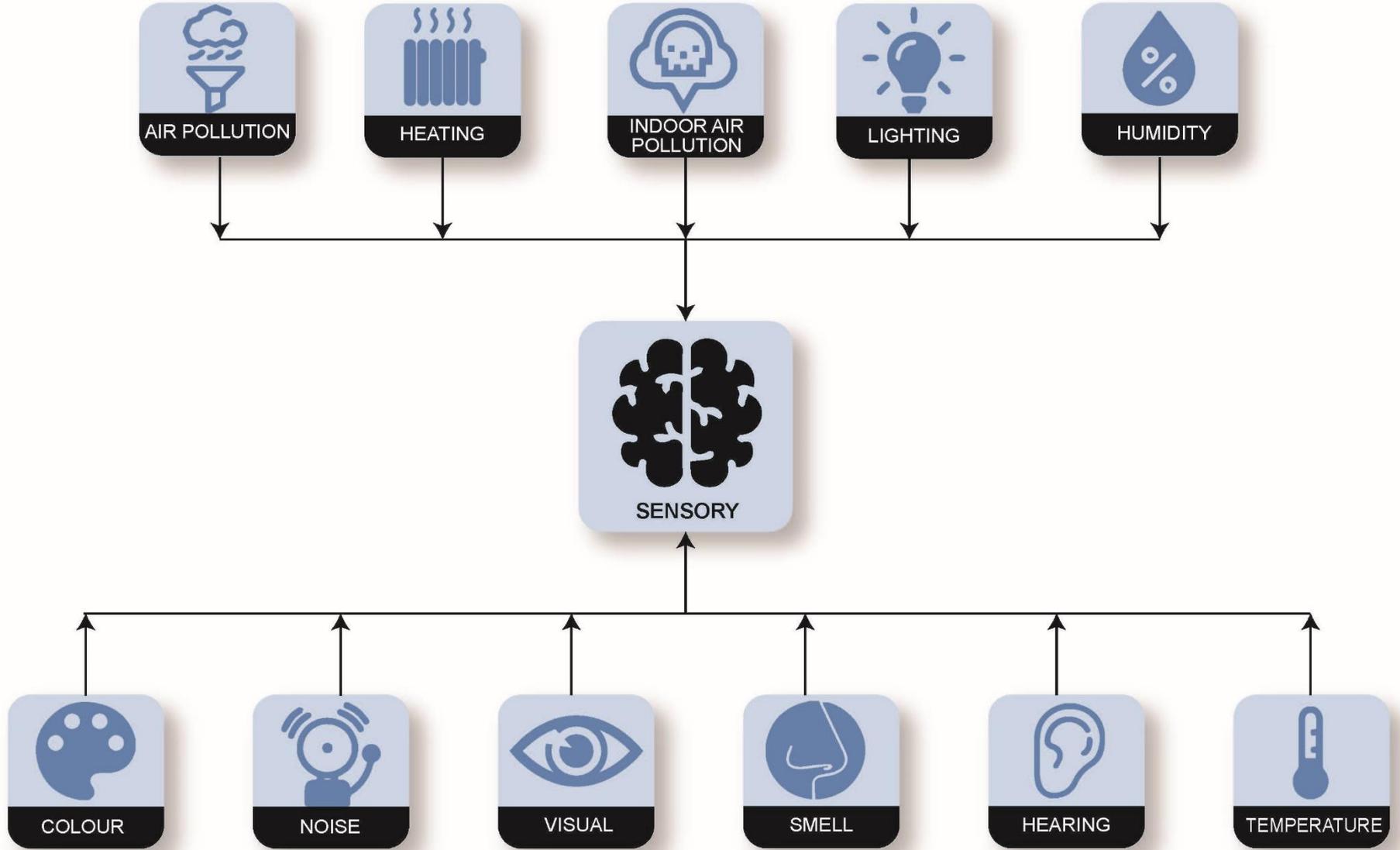
Economic

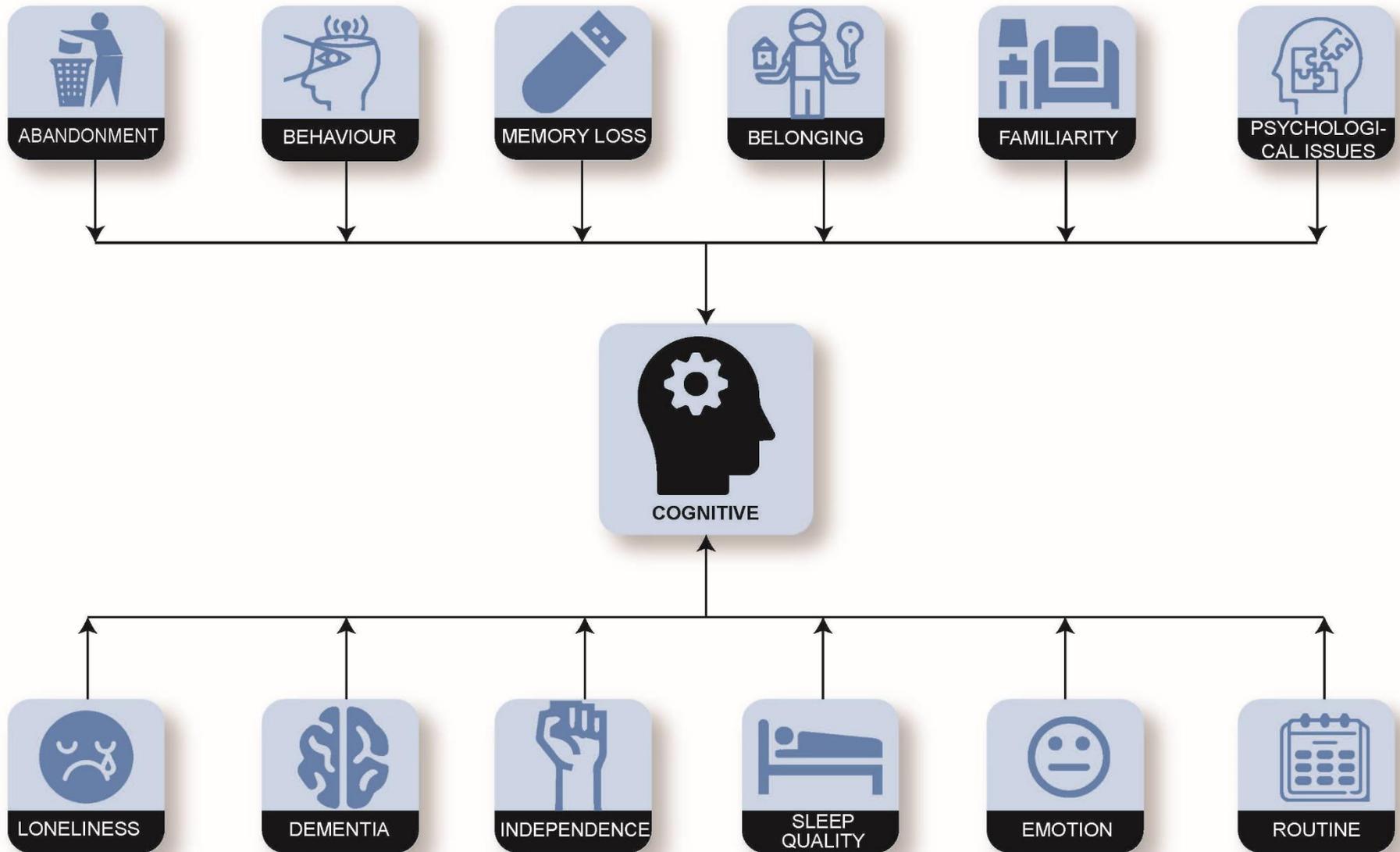
Political

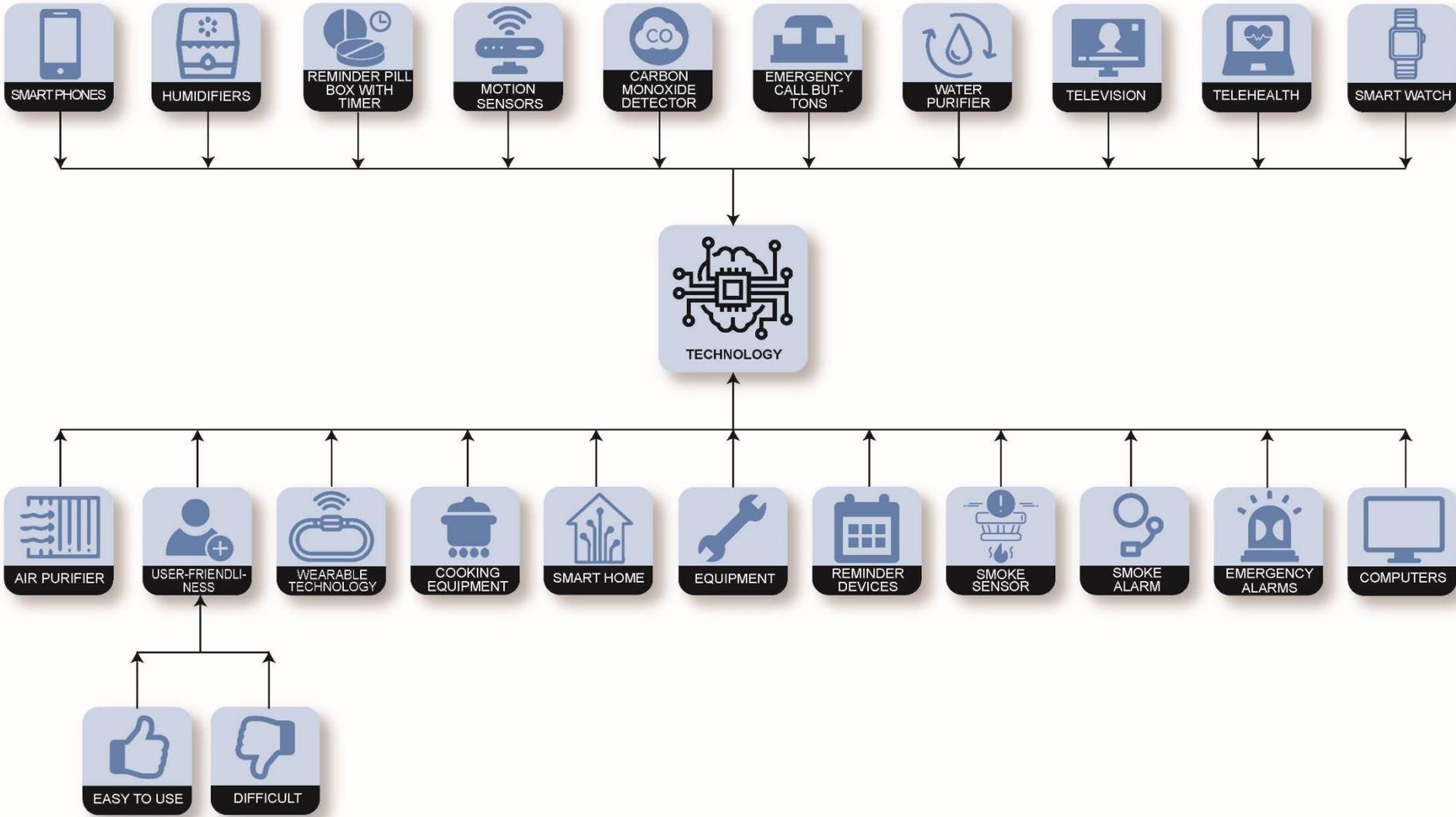
WP4 Exploratory Focus Groups, Beijing













WP4 Exploratory Focus Groups, Beijing

- “I think, the technology can’t replace emotion.”
“emotion caring is more important than these products and technologies”.
- “We do not have enough living space, I have a two-bedroom apartment, but I need to look after my grand-children. So three generations are living together, the space not enough!”.
- “I feel really uncomfortable when I hear the term ‘dementia’”.



WP4 Case studies

Age-friendly living environments: equipped with assistive technology and designed using the principles of inclusive design.

1. Inclusive design
2. Assistive technology
3. Provision for care
4. Recent development

WP4 Case studies

The user requirements and the domains were established as key issues affecting older people following a comprehensive literature review.

Five User Requirements:

1. Mobility
2. Sensory
3. Cognitive
4. Health and Safety
5. Social Inclusion

For retrofitting & Technology.

UNITED KINGDOM



- 01** Caesar Court, Deal, Kent
- 02** St. Bede's, Bedford, Bedfordshire
- 03** Tithe Lodge, Southam, Warwickshire
- 04** Queensway Court, Leamington Spa, Warwickshire
- 05** Prince Charles House, St Austell, Cornwall
- 06** Windmill House, Fowey, Cornwall
- 07** LinksView Mature Living, St Annes on Sea, Lancashire
- 08** Mascot House, Newcastle upon Tyne, Tyne & Wear

FRANCE

- 09** Orpea Residence Les Bords De Seine, Paris
- 10** Les Jardins d'Arcadie, 53 000, Laval
- 11** Orpea Residence Castagnary, 75015 Paris
- 12** Orpea Residence Les Terrasses De Mozart, 75016 Paris



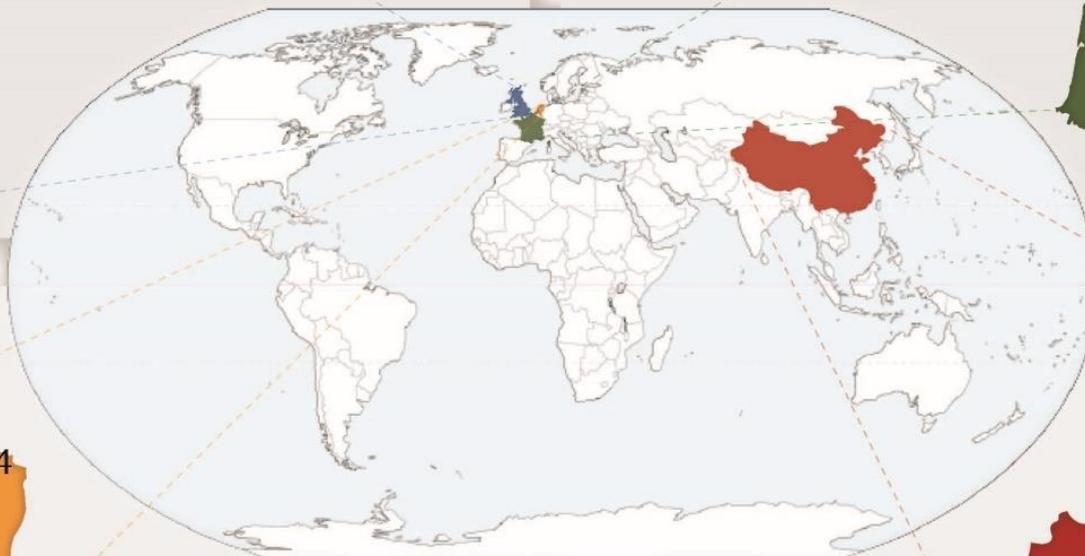
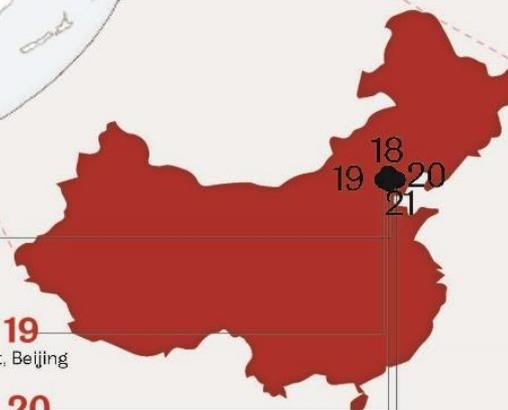
THE NETHERLANDS



- 13** Centre of Expertise Healthy Ageing, Hanze University of Applied Sciences, Groningen
- 14** De Rokade, Sportlaan 2, 9728 Groningen
- 15** Care Innovation Centre West-Brabant, Oostelijke/ Westelijke Havendijk 1, 4707 AD, Roosendaal
- 16** TNO Ageing, Schipholweg 77, 2316 ZL, Leiden
- 17** De Hogeweyk, Heemraadweg 1, 1382 GV, Weesp

CHINA

- 18** Jin Shou Zhang Care Centre (Beijing Gold Cane International Health Apartment), Changping District, Beijing
- 19** Chenghejing (CHJ) Care Centre (Yizhuang), Ageing in place at Merryshine, Daxing district, Beijing
- 20** Chenghejing (CHJ) Care Centre (Wangjijng), Aozhou Kang Du Community, Chaoyang District, Beijing
- 21** Dashilan Community Care Centre, Xicheng District, Beijing



WP4 Case studies

User Requirements	Design Framework domains for Mainstream Housing	
	Retrofit	Technology
Mobility Total features: 33	Universal - Bedroom - Bathroom - Kitchen	Universal
Sensory Total features: 28	Light - Indoor Air Quality - Visual/Hearing - Materials and Colours - Outdoor Spaces	Universal - Light - Indoor Air Quality - Visual/Hearing
Cognitive Total Features: 15	Normalness - Kitchen - Memory - Mental Health	Normalness - Easy to use - Memory - Mental Health - Personalisation
Health and Safety Total Features: 32	Universal - Bathroom - Kitchen	Telemedicine - Telecare - Fire Safety - Surveillance - Access - Intelligent Systems
Social Inclusion Total Features: 11	Physical - Virtual	Maintaining contact

WP4 Focus Groups



Activity 1

Mainstream Housing Retrofit

User requirement	Domain/Room	Item for building design	Importance for independence, health & safety					Illustrations
			Not important	of little importance	moderately important	important	Very important	
Mobility	Universal	Wheelchair accessibility						
Mobility	Universal	Accessible balconies, patios and winter gardens						
Mobility	Universal	Wheelchair ramp						
Mobility	Universal	Lift/ Stair Lift						



Activité 1

Réaménagement de logements ordinaires

Besoin de l'utilisateur	Domaine/Pièce	Élément pour la conception du bâtiment	Importance pour l'indépendance, la santé et la sécurité					Illustrations
			Pas important	Peu important	Moyennement important	Important	Très important	
Mobilité	Général	Accessibilité aux fauteuils roulants						
Mobilité	Général	Balcons, patios et vérandas accessibles						
Mobilité	Général	Rampe pour fauteuils roulants						



Avril 2017



WP4 Focus Groups

Findings:

Mobility

In both UK and France, the participants agreed that

Wheelchair accessibility (ramp; wide doors)

Lift/ Stair Lift,

were 'Very Important' design recommendations for retrofitting mainstream housing,

Less importance to features that **were perceived to be of high assistance for frail adults** such as reclining shower seats, ceiling hoists, bath hoists, etc.

WP4 Focus Groups

Findings:

Cognitive

- Both design and technology that helped with **memory and orientation** was highly significant in both countries.
- Displaying **identifiable pictures or memorabilia** at the entrance door to help with **wayfinding** was deemed 'Important' by all groups in UK and 'Very Important' in France.

WP4 Focus Groups

Findings:

Group discussion UK

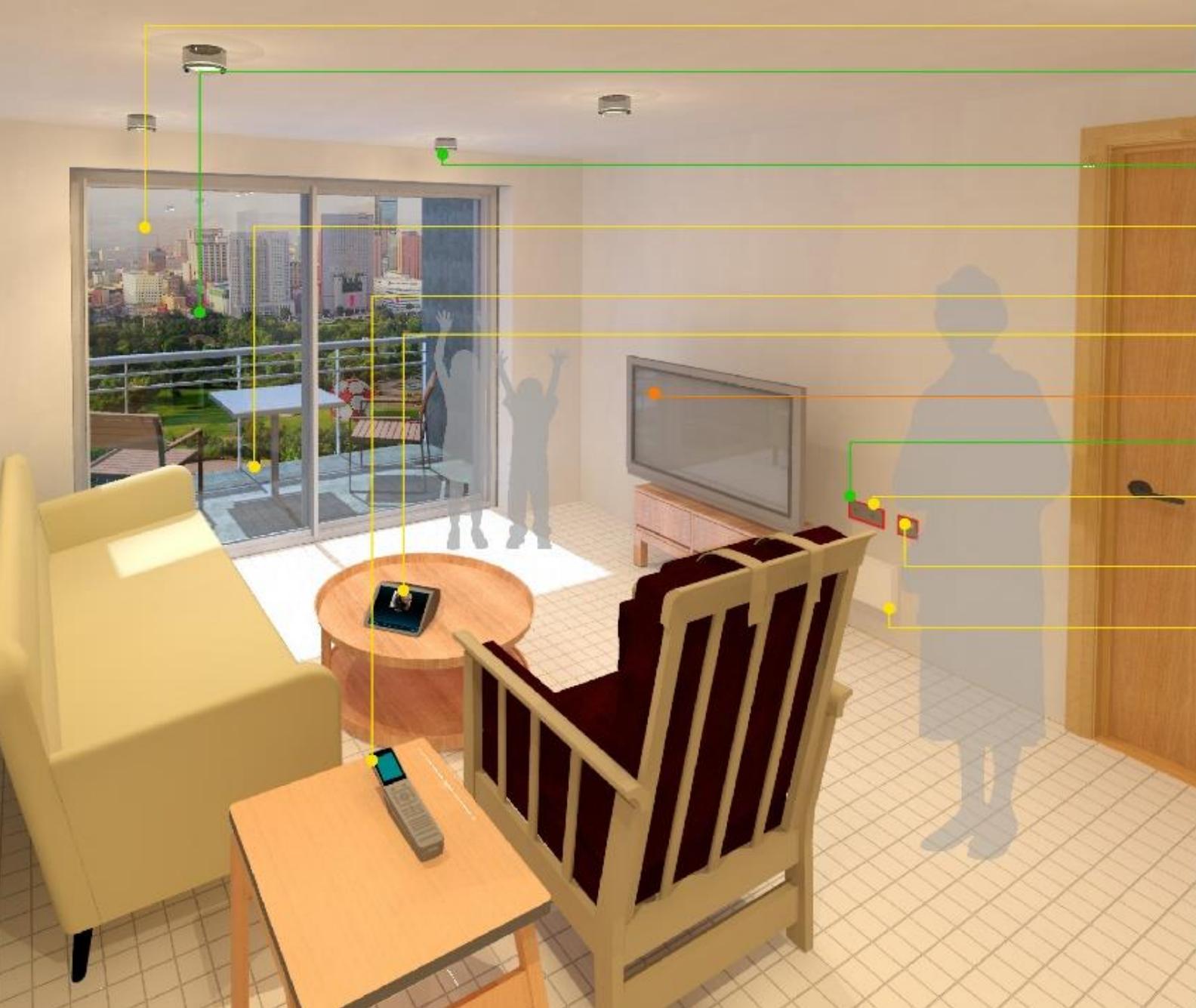
- The concept of '**homes for life**' or adaptable housing that evolves as people age was well received.
- Some older people would not like to move in a home which was completely '**fitted for old age**' as they would feel overwhelmed.
- The issue of managing **people's perceptions** and ensuring a **normal environment** that was attractive was discussed at length.

WP4 Focus Groups

Findings:

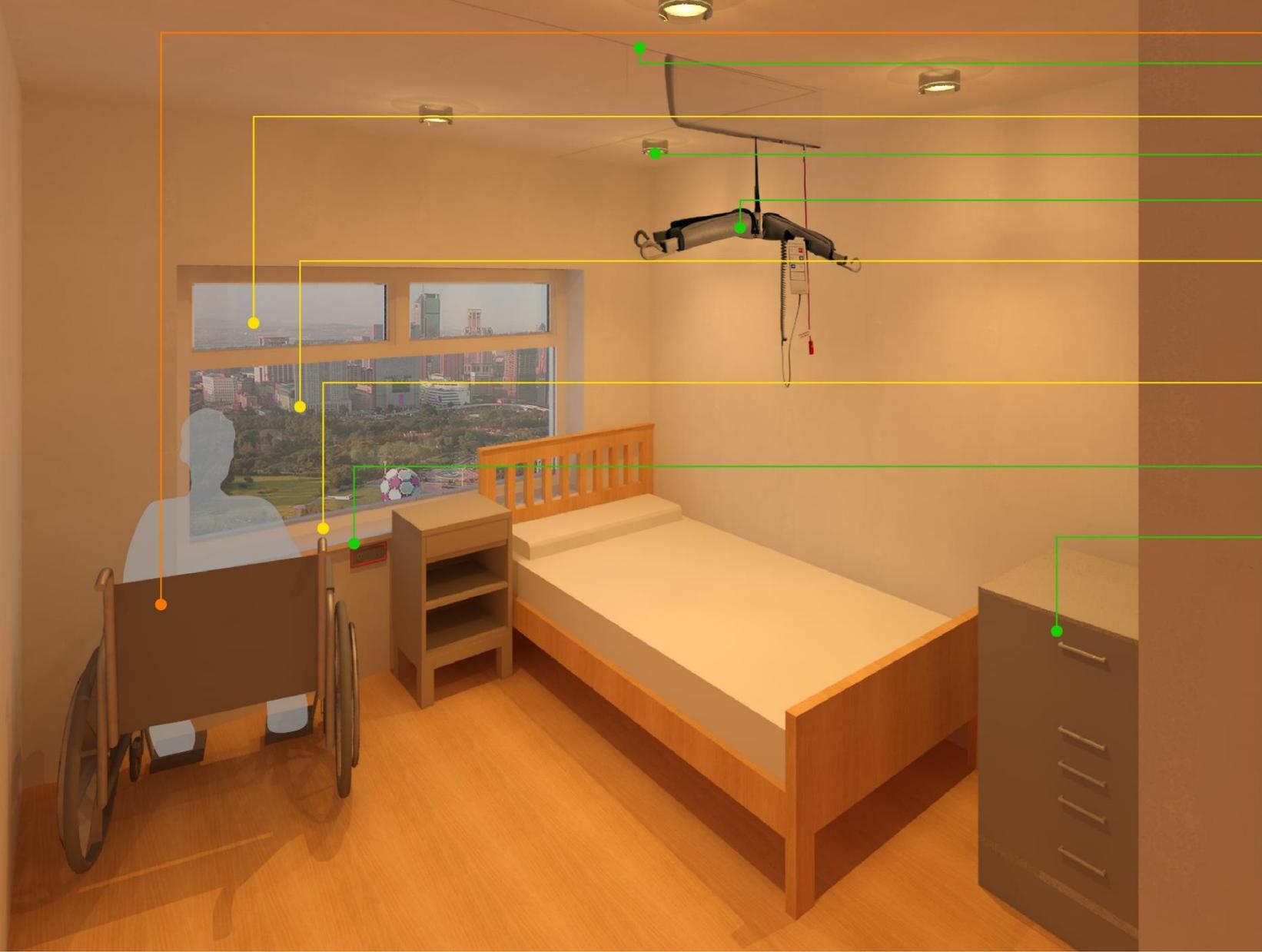
Group discussion France

- There is a danger that if everything is important then this will make the **future home very complex**, hence it is important to prioritise and be more strategic to provide a **future-proof solution**.
- Participants also discussed what aspects of inclusive design and **technology that can make older people feel stigmatised**. Large buttons on telephones were mentioned.



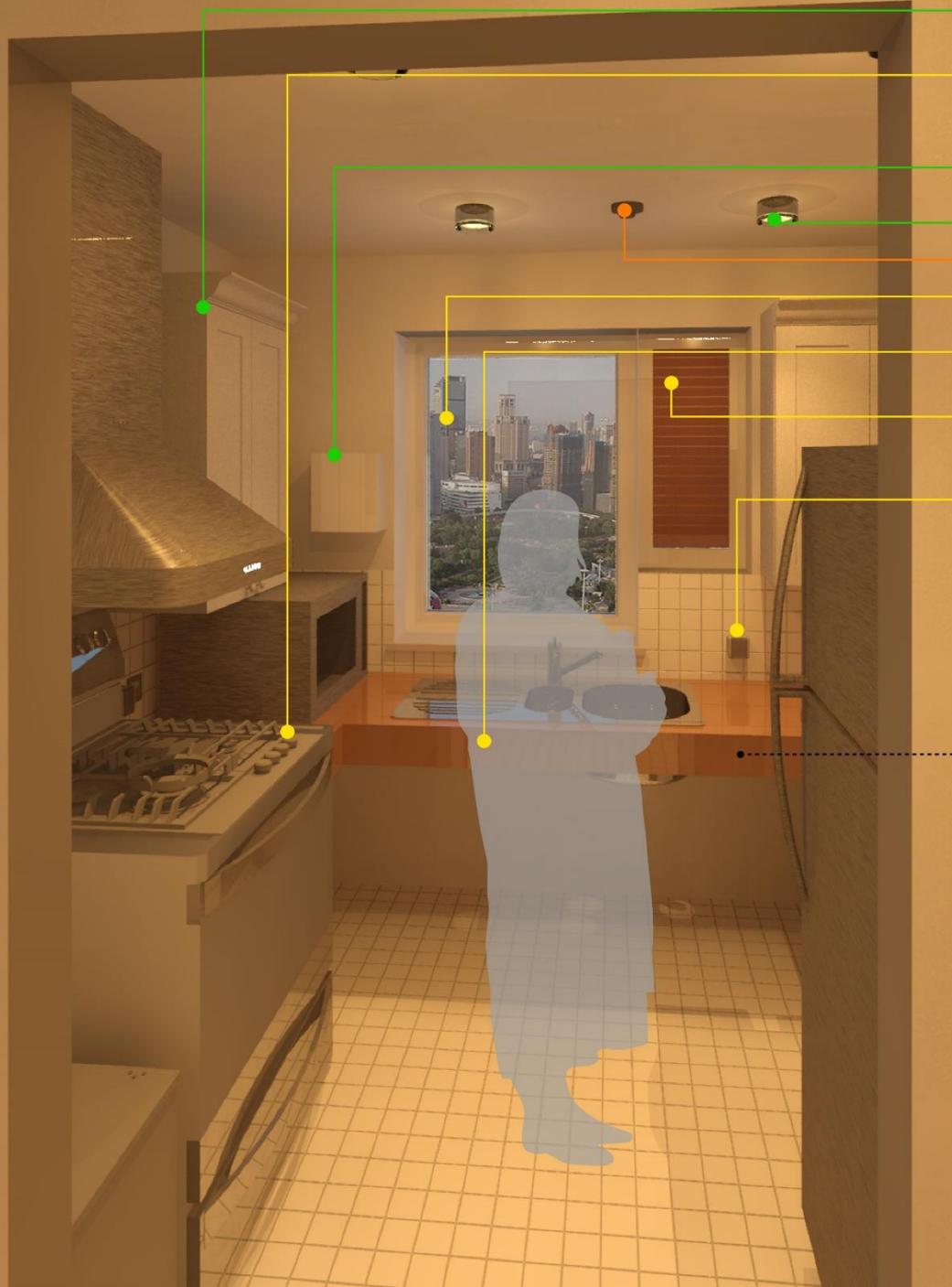
- Daylight/ Natural light
- Good outdoor views, especially of the garden, golf course, city, river, courtyard, etc.
- Adequate artificial lighting level
- Balconies, patios, winter gardens, terraces and Juliette balconies
- Telephone
- Video Call (Skype, FaceTime)
- Television (Digital TV channels, Netflix, Amazon)
- Contrasting electrical plug sockets and buttons
- Raised height electrical plug sockets and appliances
- Music (Radio, CD's, Internet, Spotify)
- Wifi

China - Housing Retrofit
Living Room



- Wheelchair accessibility
- Concealed ceiling hoist tracks for future use
- Daylight/ Natural light
- Adequate artificial lighting level
- Ceiling hoists
- Good outdoor views, especially of the garden, golf course, city, river, courtyard, etc.
- Lowered window sill height for wheelchair eye level
- Contrasting electrical plug sockets and buttons
- Lowered wardrobe

**China - Housing
Retrofit
Bedroom**



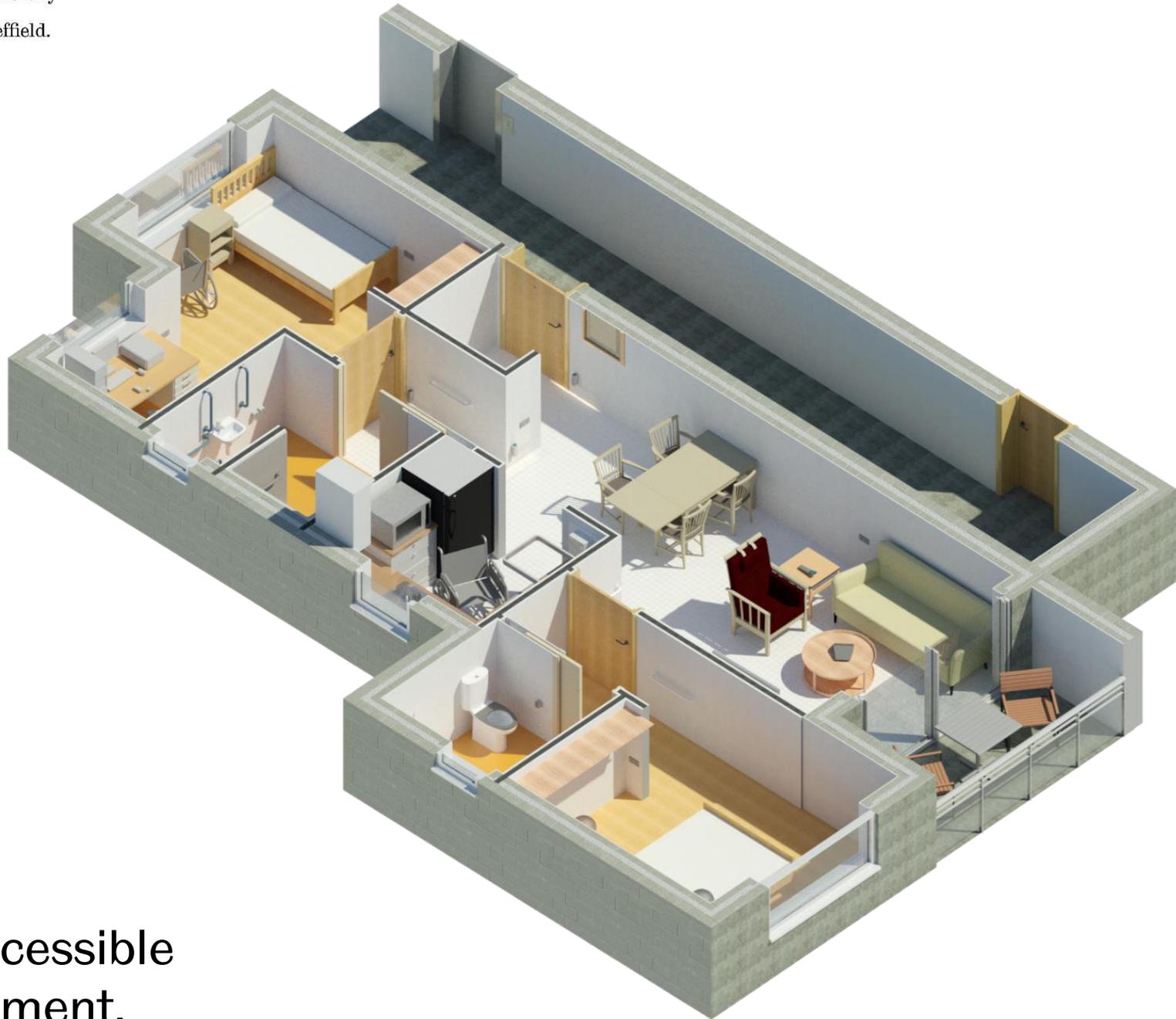
- Lowered wardrobe and kitchen cabinet heights
- Cooking hobs with delay button/automatic switch off to help with forgetfulness
- Locked cabinet for medication with access to carers, family, friends
- Adequate artificial lighting level
- Heat detectors
- Daylight/ Natural light
- Adjustable height, movable kitchen worktop
- Windows, ventilation louvres with automatic smoke vent feature: to get rid of smoke automatically
- Covered switches in bathroom and kitchen



China - Combined Housing Retrofit & Technology/ Assisted Living Kitchen



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An accessible
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WP5:

**Innovative financial channels to
promote ageing-in-place through
property (dis)investment**

Natacha Aveline

University Paris 1



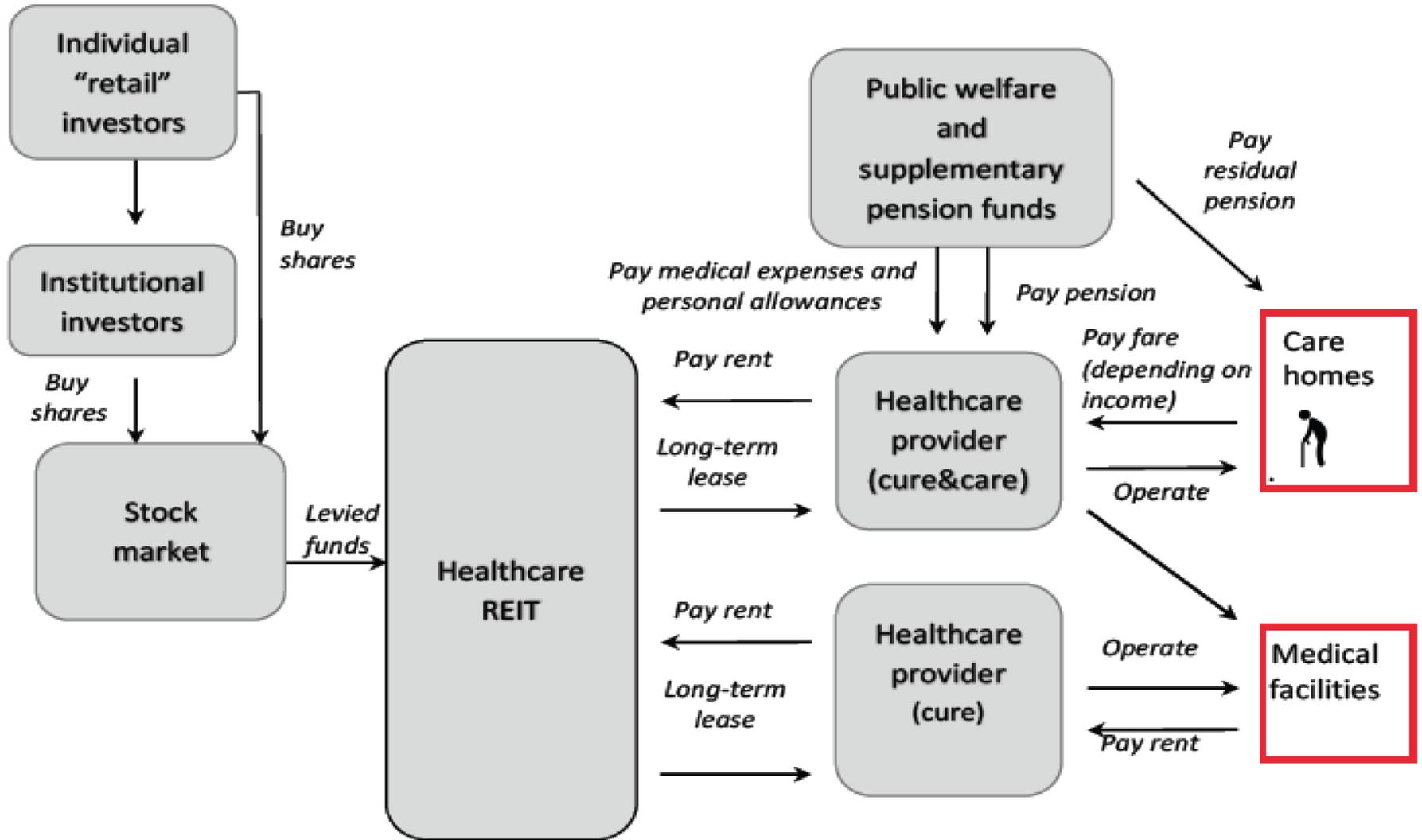
**Structural decline of public welfare
=> new instruments to finance ageing-in-place**

WP 5 examines

- the mobilization of financial capital for the provision of nursing care homes (REITs, PPP)
- the Re-Mobilization of capital locked in older people's properties (equity release, viager)

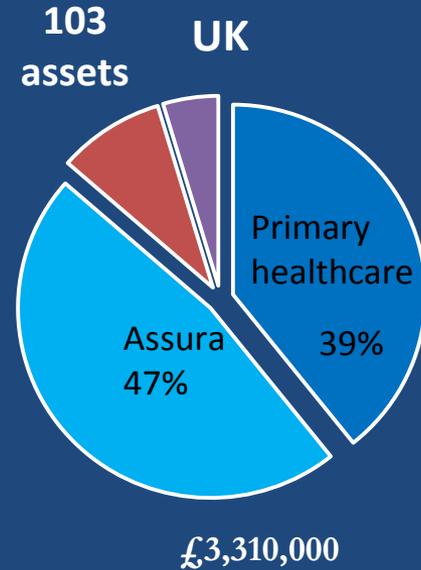
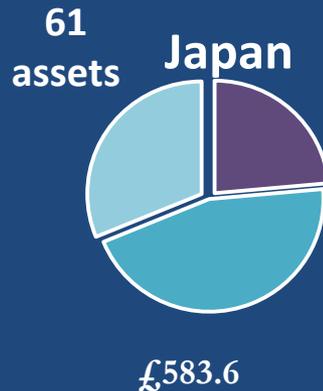
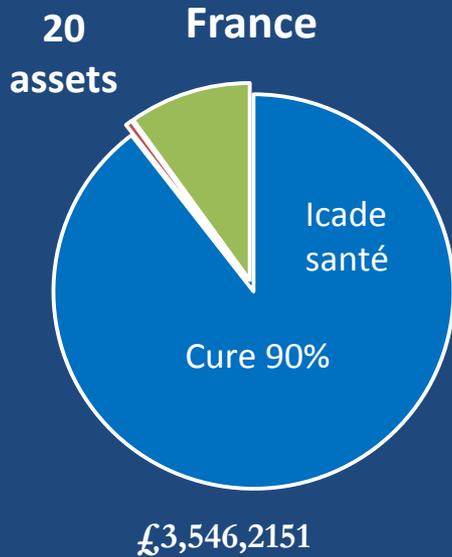


Healthcare real estate investment trusts (UK, France and Japan compared)





Weak development of nursing homes





Obstacles to the securitization of nursing homes

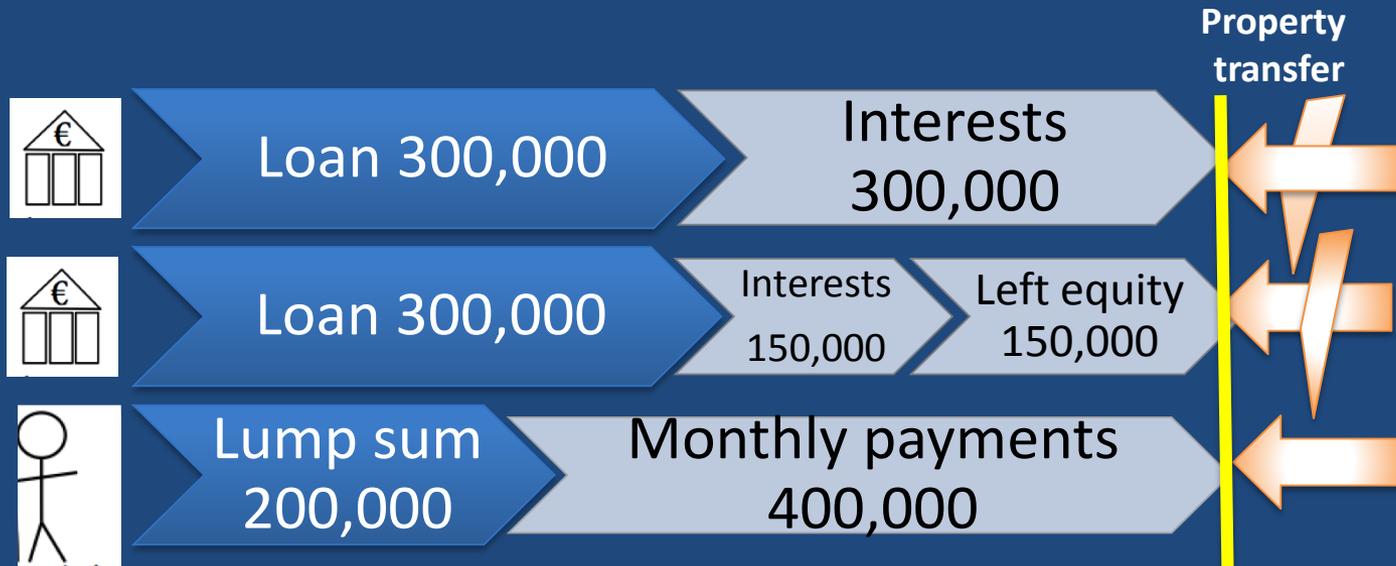
- small assets (50-80 rooms) no economies of scale
- Secure high returns for investors=> high rents, limits the customer base (£2,500/month)
- Find reliable health providers



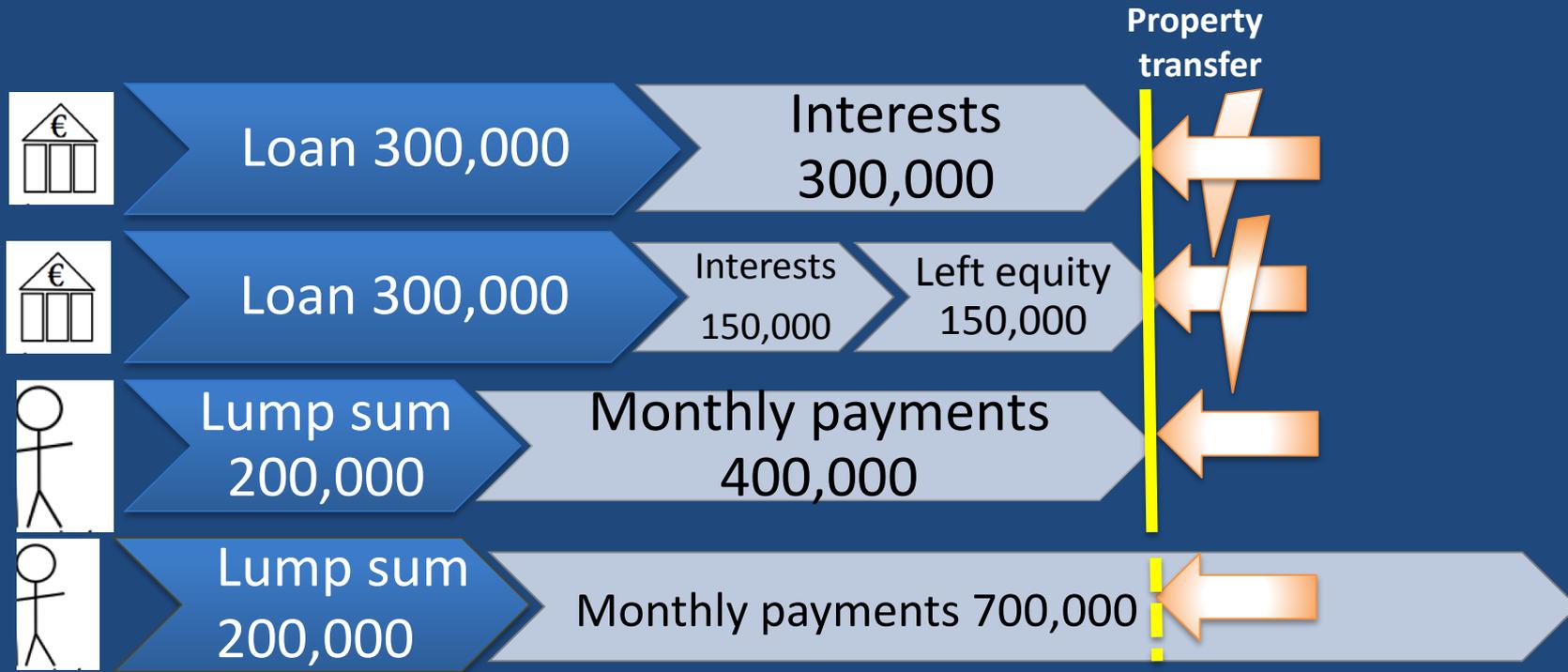
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Equity release and viager systems

Value 600,000 €, 75 years old



Value 600,000 €, 75 years old





Supercentenarian Jeanne Calment(1875-1997)

- **Still a world record-breaker, died at 122**
- At age 90 with no heirs (all dead) she contracted a viager.
- She outlived the viager buyer.
- **The price payed for the property was more than double the market value.**





- High risk for the buyers of french viager
3 to 4 sellers for one buyer => weak
development (only 3000 /year)
- By contrast , equity release is currently
undergoing development (20,000 /year)



What is the released capital used for?

- Viager: improve living standards, help relatives
- Equity release: similar uses+ pay debts and improve homes



Conclusion

- REITS CHANNELS DO NOT HAVE A STRONG POTENTIAL TO FINANCE NURSING CARE FACILITIES, PPP MAY BE MORE SUITED FOR THIS PURPOSE
- THE VIAGER SYSTEM WILL REMAIN A SMALL NICHE UNLESS IT IS SIGNIFICANTLY TRANSFORMED TO SECURE THE BUYER'S INTEREST
- BY CONTRAST, EQUITY RELEASE MAY DEVELOP FURTHER, BUT IT PRIMARILY FAVOURS ASSET RICH, CASH POOR OLDER PEOPLE



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WP6: Ageing-in-Place: Forecasts & Solutions Scenario Building – Qualitative and Quantitative Analysis

Friday 23 February 2018, 9.30am-4pm

Mercure St Paul's Hotel & Spa, 119 Norfolk St, Sheffield S1 2JE

Presenter : Zan Yang

Institute of Real Estate Studies
Hang Lung Center for Real Estate
Tsinghua University

E-mail: zanyang@tsinghua.edu.cn



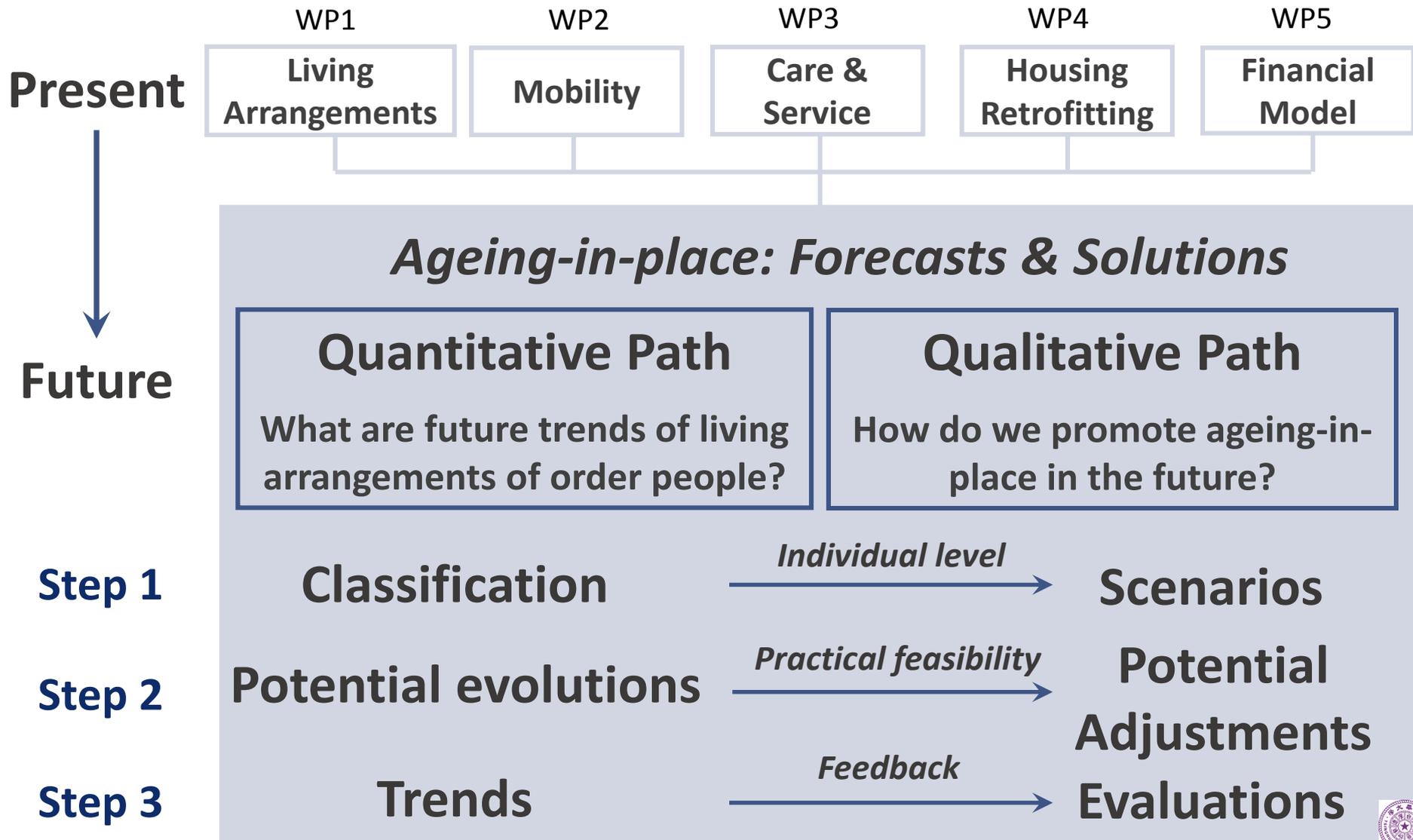
Objectives of WP6

Qualitative part: Dr Zan
Yang, Shuai Fang

Qualitative part: Professor
Karim Hadjri, Dr Tulika
Gadakari, Dr Junjie Huang,
Jingjing Wang

-  To gather results from WP1-WP5 for a care-delivery model
-  Quantitative path: To understand the future trends of ageing-in-place in China
-  Qualitative path: To suggest solutions to promote ageing-in-place in China

Methodology



Research Process

Step 1

Classification

Classification

Individual level

Scenarios

Research Process

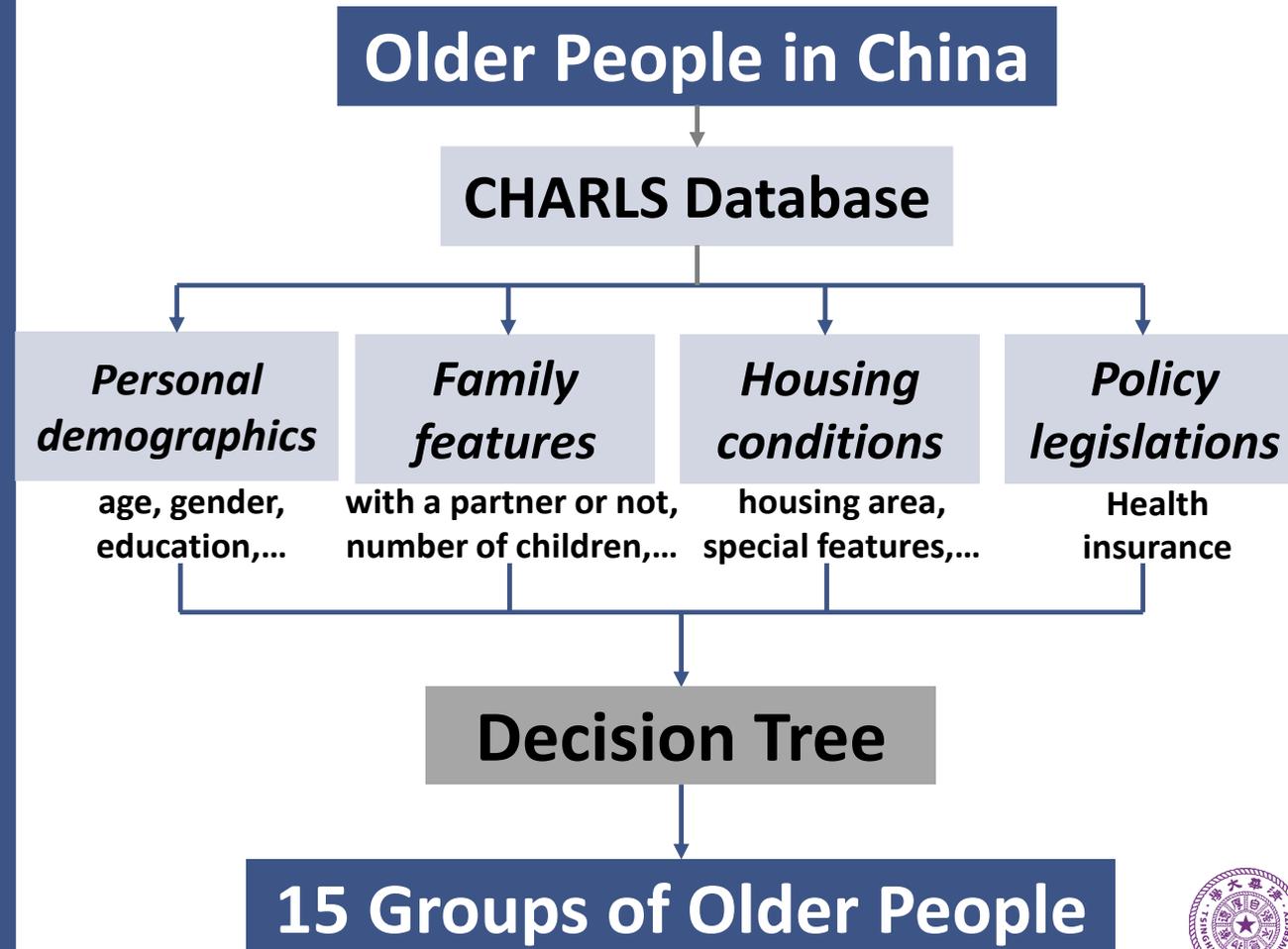
Step 1

Classification

Based on results from WP1&2 and CHARLS Database, categorizing older people in China into 15 groups, from personal demographics, family features, housing conditions and policy legislations

Individual level

Scenarios



Research Process

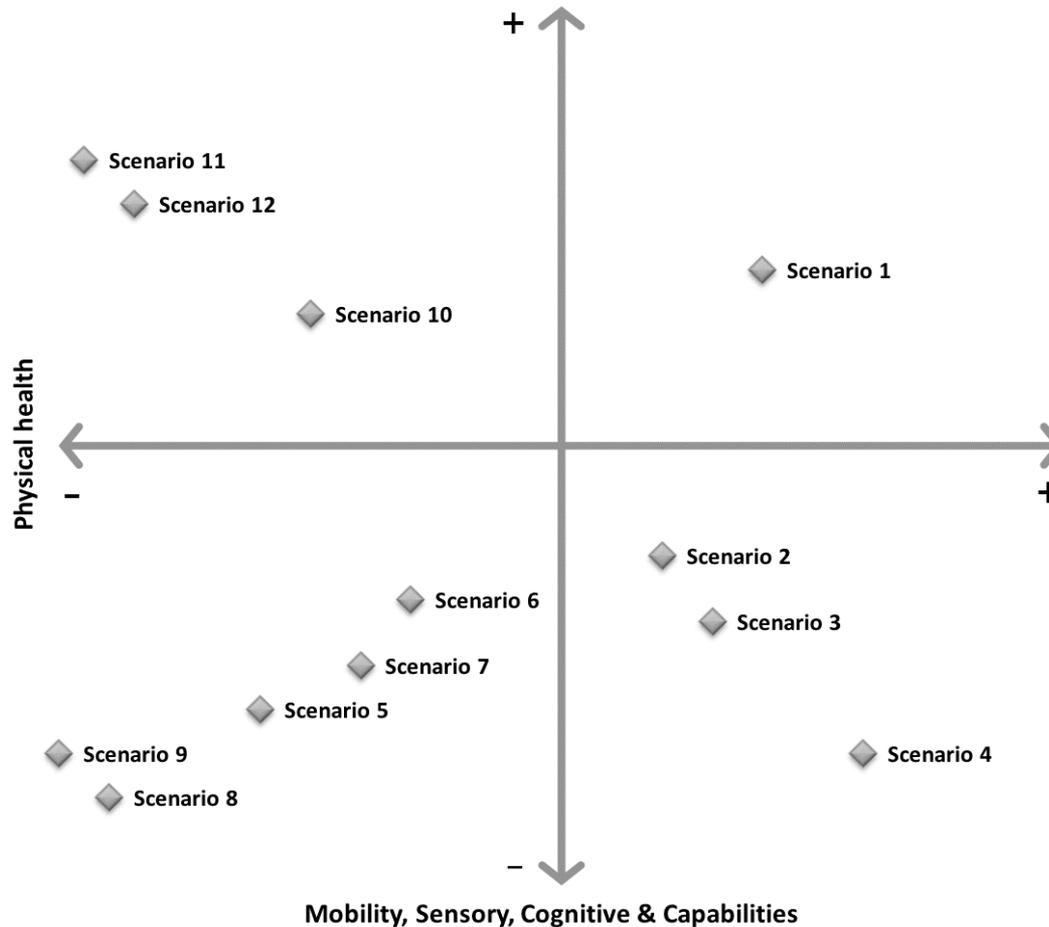
Step 1

Classification

Individual level

Scenarios

Based on results from WP1-5, designing 12 scenarios from two aspects: physical health and mobility, sensory, cognitive & capabilities



Research Process

Step 2

Potential evolutions

Potential evolutions

Practical feasibility

Potential
Adjustments

Research Process

Step 2

Potential
evolutions

Potential social
and economic
evolutions in
future China:
(based on WP3-
5)

Practical feasibility

**Potential
Adjustments**

- 01 Pension system & financial support**
increasing government subsidies for the low-income older people
- 02 Age-friendly housing retrofitting**
increasing housing area and retrofitting
- 03 Care & services**
more care and services provided to order people, which decreases the probability of health shock

Research Process

Step 2

Potential evolutions

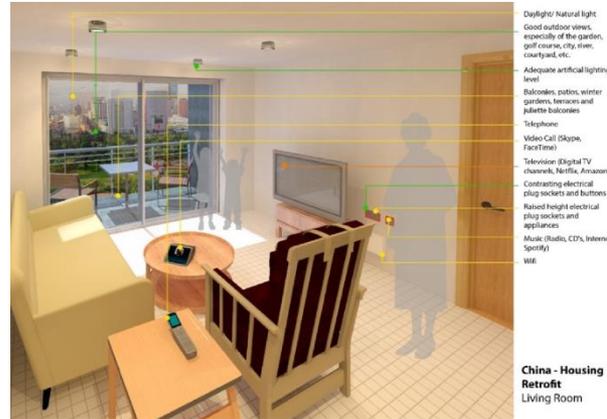
Design: special design features to improve mobility, gardening, and ADLs needs.

Health: maintain good health, health support for assessment, advice of health issues, plan for new requirements.

Social care: maintain existing community networks and family support, address additional transportation requirements.

Technology: plan technology features for mobility needs, health and ADLs management, remote monitoring and communication tools.

Practical feasibility



potential Adjustment

Solutions from perspectives of design, health, social care & technology

Research Process

Step 3

Trends

Trends

Feedback

Evaluations

Research Process

Step 3

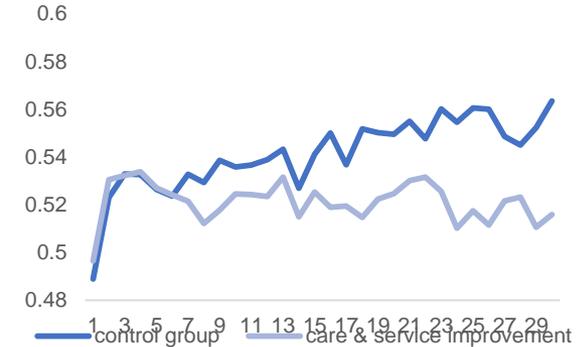
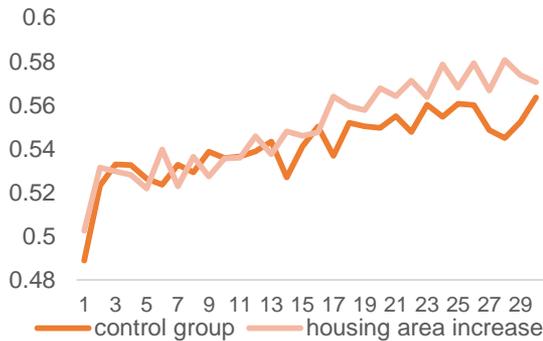
Trends

Feedback

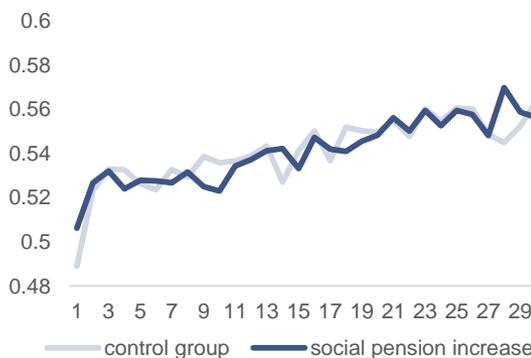
Evaluations

Simulations in Multi-agent System

01 Enlarging housing area encourages coresidence



02 improving care & services system stems coresidence



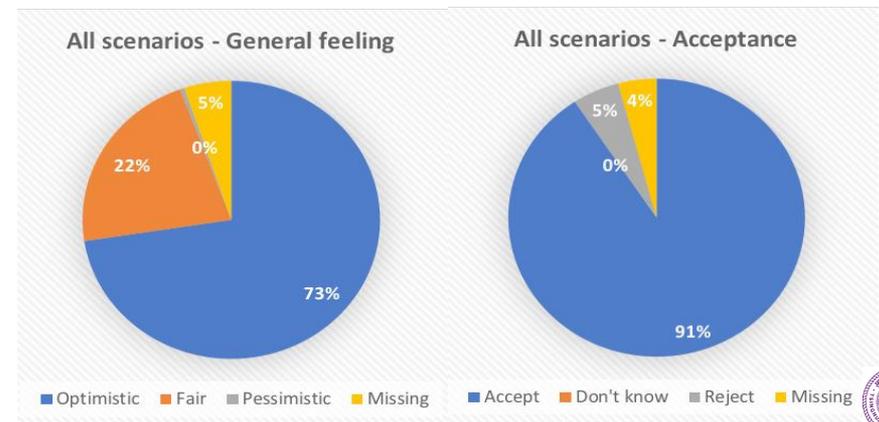
Trends

Feedback

Evaluations

Public events to get feedback on proposed solutions

- ✓ Plausibility and Robustness
- ✓ Importance
- ✓ Value
- ✓ Whether the scenarios were optimistic and pessimistic
- ✓ Whether they accepted it or not
- ✓ High optimistic and acceptance
- ✓ More efficient family, community and social support
- ✓ Providing policy, regulation, and professional inspectors
- ✓



Contributions

Quantitative part

- Established an original model to forecast the trends of living arrangements
- Involved potential social evolutions based on a synthesis of WP1-WP5
- Provided political implications to prompt ageing-in-place

Qualitative part

- ✓ Established scenarios from several angles based on a synthesis of WP1-WP5
- ✓ Suggested Solutions to promote ageing-in-place from a practical perspective
- ✓ Evaluated the proposed solutions

WP6

Designed an integrated framework of care delivery model to promote ageing-in-place

Further Works

- ▶ Better family, community and social support model will benefit the improvement of the scenarios
- ▶ The system between the old people and the health centre/hospital
- ▶ More qualified data on housing retrofitting, social support and health issue
- ▶ Consider the interaction between the government, enterprises and older people
- ▶ Built realistic financial solution for each scenario
- ▶ Implications for regulations and policies

...



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Thanks

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WP6.2: Future scenario building.

Karim Hadjri; Tulika Gadakari; Junjie Huang;
Jingjing Wang.

Infographics: Yanisa Niennattrakul



WP6.2: Scenario building

Scenario specific future-proof adjustments are provided in the table below:

No	Scenario	WP1 & 2 data	
S1	<p>Scenario 1</p> <p>A 60 year old couple who will be retiring shortly are planning for their future. They are currently in good health though one of them anticipates the occurrence of a stroke due to familial medical history. They realise that currently the apartment and building in which they live is not equipped to support their future needs for independent living. They are keen on using technology to alert their children who live in the same neighbourhood (less than 5km away), as well as manage other activities of daily living. They are currently physically active and enjoy gardening as well as many other social activities.</p> <p>Problem keywords: risk of stroke, manage daily living activities, future needs not supported.</p> <p>Existing supports: children live in the same neighbourhood.</p> <p>For this couple who wants to plan for their future, ODESSA proposes future-proof adjustments in the areas of:</p> <ul style="list-style-type: none"> • Health: maintain good health, advanced health support for assessment and advice of potential health issues and plan for new requirements. • Social care: additional transportation requirements and intergenerational support from family members. • Design: planning for special features to improve mobility needs. • Technology: planning new equipment for health management, remote monitoring and easy alternatives to operate computers/tablets with physical impairments. 	<p>Supporting Variables used for data substantiation</p> <p>Age: 60-70 year age group Number of Children: In China, 26% of 60-70 year olds have 3 children Distance to Children: In China, 25% of 60-70 year olds live in the same neighbourhoods as their children Living with Partner: In China, 86% of 60-70 year olds live with their partner Special equipment for mobility: In China, only 22% of buildings have handicapped facilities such as ramps. At least two limitations in ADLs: In China, 0.8% of 60-70 year olds have at least two ADL limitations and the number dramatically rises to 9.1% for older people over the age of 80 years. At least two limitations in IADLs: In China, 4.4% of 60-70 year olds have at least two IADL limitations and the number dramatically rises to 32.1% for older people over the age of 80 years. Special equipment: In Europe, the use of alerting devices increases from 2% among 60-70 year olds to 14.5% for people over 90 years.</p>	
Solutions	WP3 (Health and Social Care)	WP4 (Design and Technology)	WP5 (Finance)
S1	<p>Maintain good health, activity and social relationships:</p> <ul style="list-style-type: none"> • Undertake advance planning to assess the potential impact a stroke may have (e.g. reduced mobility) and plan for new health and social care requirements. • Maintaining existing community networks: examine what will enable older people to continue to participate 	<p>Design:</p> <ul style="list-style-type: none"> • Waterproof reclining shower seat with wheels for assisted bathing <p>Technology:</p> <ul style="list-style-type: none"> • Door entry system with intercom and additional remote controlled option for people with low mobility 	<p>Adaptation of housing conditions to ageing-in-place</p> <ul style="list-style-type: none"> • Financial schemes to de-lock wealth from property ownership such as equity release or <u>viager</u> may be used to cover the cost of housing adaptation. • The current situation tends to favour “cash poor, asset

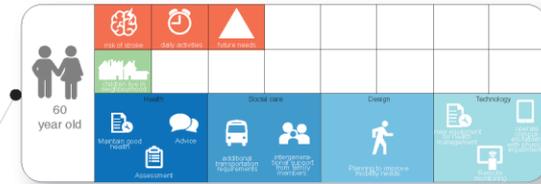
SCENARIO 11



SCENARIO 12



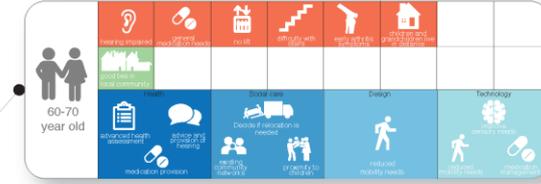
SCENARIO 1



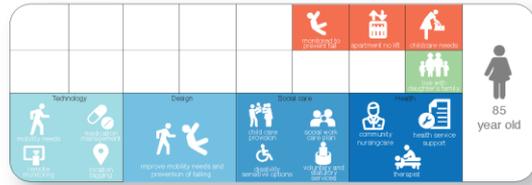
SCENARIO 10



SCENARIO 2



SCENARIO 9



SCENARIO 3



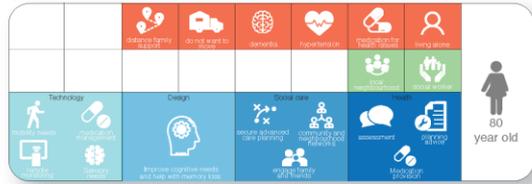
SCENARIO 8



SCENARIO 4



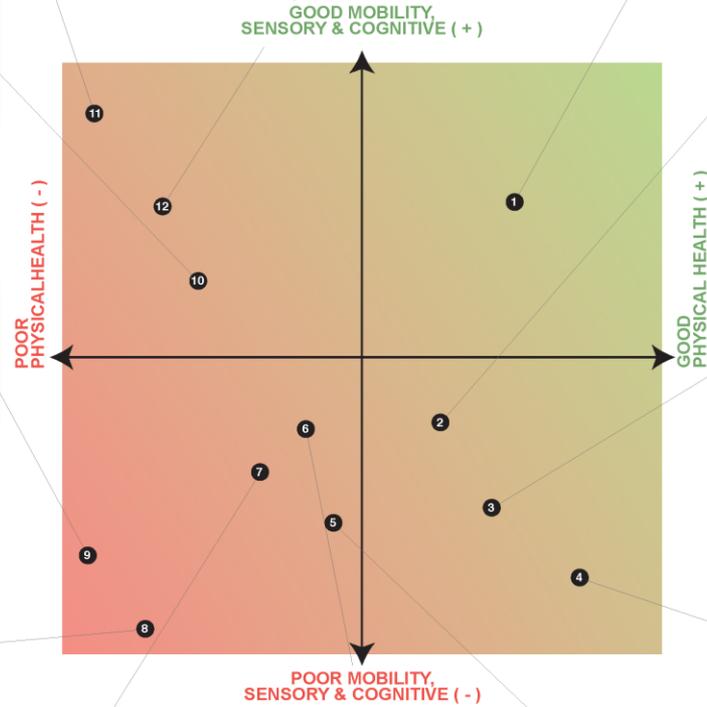
SCENARIO 7



SCENARIO 6



SCENARIO 5





SCENARIO 5

 82 year old	 knee surgery	 wheelchair	 regular physiotherapy	 stepped access to lift	 no special facilities	 coronary heart disease	 requires regular monitoring	 depression	
	 5 children in the same city	 lift	 visiting physiotherapist						 trouble sleeping
	Health  special health support including nursing, therapists		Social care  Statutory Support  social work care plan  disability sensitive options		Design  special design features to fulfill mobility and sensory needs.		Technology  mobility needs  remote monitoring		 medication management  Cognitive needs

WP6.2: Scenario building

Focus group events in Beijing on 25th and 26th October 2017.

Feedback on 12 scenarios.



SCENARIO NUMBER:	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Do not know
1. Plausibility and robustness of the scenario						
The scenario is plausible and could happen in the future						
The scenario addresses realistic issues known to society in China						
The scenario solutions are useful (text in blue)						
The scenario solutions are achievable (text in blue)						
Comments:						
2. Importance of the scenario						
This scenario is important in terms of retrofitting for accessibility and mobility.						
This scenario is important in terms of retrofitting for technology.						
This scenario is important in terms of being connected to family, community and social and health care.						
Comments:						
3. Value of the scenario						
This scenario merits the attention of older people.						
This scenario merits the attention of older people's relatives and informal caregivers.						
This scenario merits the attention of formal social and healthcare providers.						
This scenario merits the attention of designers (architects etc.).						
This scenario merits the attention of policy-makers.						
Comments:						
In all, would you consider this to be a:	Based on the above and overall structure of the scenario, would you:					
a) Optimistic	a) Accept the scenario					
b) Fair	b) Reject the scenario					
c) Pessimistic	c) Don't know					
d) Don't know						

WP6.2: Scenario building

Focus group events in Beijing on 25th and 26th October 2017.

Feedback on 12 scenarios.



WP6.2: Scenario building

Two public evaluation events in China

Feedback data was collected on:

- Plausibility and Robustness
- Importance
- Value
- Optimism
- Acceptance
- Comments



WP6.2: Scenario building

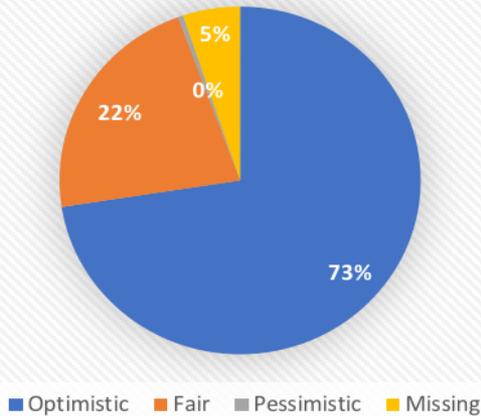
Both descriptive statistical means and detailed qualitative comments were examined to enable further evidence-based ageing-in-place scenario improvements.

Data overview:

	Total number	Frequency		Mean Age	General feeling	Acceptance
		Female	Male			
Overall	215	152	57	68.41	0.76	0.89

WP6.2: Scenario building

All scenarios - Optimism

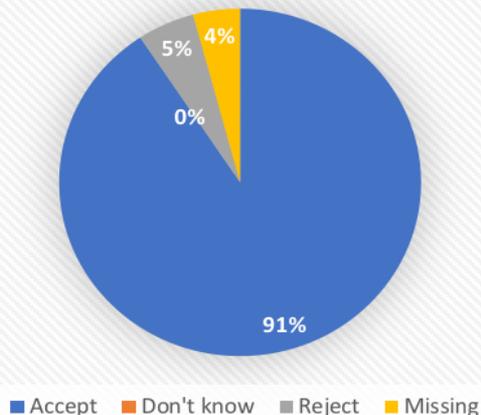


High Optimism and Acceptance level

Relatively high concerns in:

- Social and community support solutions
- Emergency health care system
- Up-to-date retrofitting options
- Inspection system

All scenarios - Acceptance



WP6.2: Scenario building

1. Living arrangements consideration.
2. Social, community and family support.
3. Health solutions.
4. Housing retrofitting options.
5. Financial model to help with the cost of retrofitting needs.
6. Policy, regulation and professional inspection needs for retrofitting.



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Thank
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ODESSA PROJECT

Panel discussion

23 February 2018