A life course microsimulation perspective on multi-dimensional well-being for five European countries



Public consultation on the effects of population ageing on well-being: Report

WP5

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Project Consortium

Project Identity

Project name	*A life course microsimulation perspective on multi-dimensional well-being for five European countries* – WELLSIM
Coordinator	Matteo Richiardi, Professor of Economics and Director, *Centre for Microsimulation and Policy Analysis* (University of Essex)
Consortium	• University of Glasgow (UK) • Universitat de Barcelona (Spain) • Stockholm University (Sweden) • University of Warsaw • Institute for Employment Research (IAB) (Germany)
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Website	https://www.microsimulation.ac.uk/wellsim/

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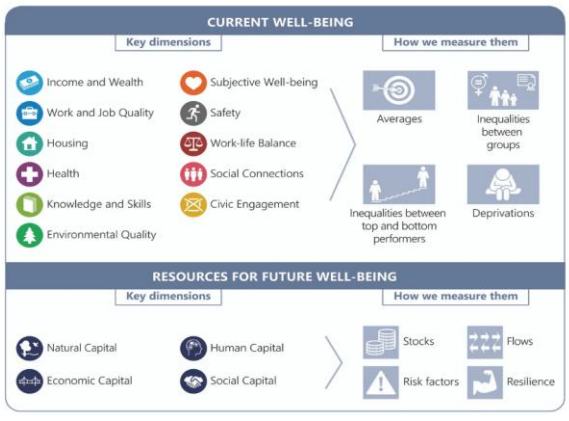
1. Background

Well-being is a multidimensional concept that spans a variety of individuals and households' life domains and time scales, affected by variable determinants across the life course. Since the report on *Measurement of Economic Performance and Social Progress* (Stiglitz, J., Sen, A., & Fitoussi, J.-P. 2009), which considered the limitations of GDP and how progress should otherwise be measured, there has been an increasing interest from policymakers to gain insight on people's life and the state of society 'beyond GDP'.

The OECD used the report to develop its Well-being framework (2011) which covers 11 dimensions of well-being and 4 types of resources for future well-being: the (i) economic, (ii) natural, (iii) human and (iv) social capital, supporting the inclusion of over 80 indicators. This however remains an ideal framework, with only partial implementation in OECD countries. It is, however, intended mainly as a descriptive tool, with the richness of the framework itself making it unsuitable for projections. Moreover, it is mostly implemented through a collection of aggregate statistics, which mask individual heterogeneity and many aspects of well-being inequality (such as the correlation between dimensions).

The step-change WELLSIM offers to the field of well-being is to operationalise this framework in a modelling context which allows projections at the individual and household level and counterfactual analysis to evaluate the impact of different macro- and micro-scenarios, and the effects of different policy interventions. This requires projecting forward, for each individual in a population of interest, the different life domains considered, considering their interconnectedness.



Of the 11 dimensions, our modelling framework includes (i) Income and Wealth, (ii) Work and Job Quality (measured by wages), (iii) Housing (tenure and size), (iv) Health (mental and physical, including chronic pain), (v) Knowledge and Skills (education, skill level), (vi) Subjective Well-being, (vii) Work-life Balance (family structure and hours worked). A key aspect of the approach is the integration of objective and subjective measures of well-being, at the forefront of research. We also take on board scholarly suggestions to focus on chronic pain, the main cause of morbidity in terms of *years lived with disability* (YLD) in most advanced countries and a sizeable source of economic loss, as a separate determinant of well-being. This makes WELLSIM a most comprehensive well-being model conceived to date, which we can deliver by leveraging years of continual investment and development to maximise the value of the award. Projections of

health outcomes, analysis of the socio-economic determinants of health and well-being and associated inequalities, and evaluation of the 'health in all policies' component of fiscal systems highlight how the project will also push frontiers in public health research. We go beyond an aggregate characterisation of how the environment can nurture future well-being, to investigate how the actual determinants of well-being at the individual level evolve over the life course, based on demographic, social, economic and health processes operating in detailed institutional frameworks, and subject to macro-trends, thus contributing also to advancing the field of life course analysis and sociology of the life course.

WELLSIM offers a unique opportunity to extend the framework to the analysis of well-being, considering the potential impact of some of the macro challenges faced by European countries (i.e., population ageing, migration and labour market). In this context, we would like stakeholders to influence the scenarios examined. That is why WELLSIM consortium will be consulting on the different scenarios for the macro-challenges throughout the project implementation (2025-2028).

2. Introduction

Why a public consultation on Ageing Population?

While the improved life expectancy we have gained over the last century is a success, an ageing population is now one of the major challenges we face. It has implications on healthcare and social care, pension and welfare sustainability, age population structures, social connections, etc. Between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12% to 22%[1]. With ageing and shrinking workforces becoming pressing issues, governments need better indicators to craft policies that meet the needs of all generations cohorts (improving health, increasing employment policies, pensions reforms, etc.).

Our aim is to analyse the channels through which this challenge affects well-being of different population groups by gathering expert views on fertility, migration, and policy responses adaptations in pensions and healthcare across Europe. Also, emphasising technological roles, public acceptance of AI, robots in healthcare, and their impacts on well-being, with future challenges focusing on balancing demographic shifts and system sustainability.

About this report

This report presents the analysis of the contributions received during the public consultation launched in March 2026 focused on the first macro-challenge: **Population Ageing**. The

[1] https://www.who.int/news-room/fact-sheets/detail/ageing-and-health

consultation took the form of an online questionnaire with a pack of 55 questions including a mix of closed and open-ended questions.

We disseminated the questionnaire via the *Advisory Group*, the *Chanse Programme Secretariat* and ISER mailing list which counts with roughly 3,000 recipients. We advertised the consultation on the project website and project's social media accounts (LinkedIn and Bluesky).

The consultation is primarily intended to stakeholders and policymakers. It was opened for eight weeks until last Friday 22nd of May 2026.

Phases	Tasks	Responsible
Planning	Defining purpose, brainstorming ideas	All WELLSIM researchers
	Supporting materials (explainer, presentation)	Mireia Gracia
	Stakeholders mapping	Mireia Gracia
Design and preparation	Drafting questions	David Adunts, IAB (section 2) Cio Patxot, UB (section 3) Matteo Richiardi, CeMPA (section 4) Agneta Cederström, Stockholm University (section 5) Claire Niedzwiedz, Glasglow University (section 6)
	Preparing the online form	Mireia Gracia
	Engagement channels (mainly online, via e-mails, social media, website)	Mireia Gracia
	Responses monitoring	Mireia Gracia
	Data collection	Mireia Gracia
Analysis and evaluation	Analysis of results / determine outcomes	Matteo Richiardi and Mireia Gracia
	Evaluation and lessons learned	Matteo Richiardi and Mireia Gracia

Table 1. WELLSIM Consultation phases

The following sections show the results of this consultation summarising the answers received.

3. Results of the consultation process

3.1. Section 1: Respondents

We received answers from 1 German institution, 2 Spanish universities, 2 from Sweden and a mix of 8 academia institutions and civil organisations from the UK. We didn't receive any responses from Poland.

Academia / research institution	Civil Society Organisations	Others
-UNED (National Distance Learning University) -The Baltic International Centre for Economic Policy Studies (BICEPS) -Climate Service Center Germany (GERICS) -London School of Economics (LSE) -Umea University -University of Valencia -Liverpool Business School	-Wellbeing Economy Alliance Scotland -Women's Budget Group -Child Poverty Action Group (CPAG)	-Independent researcher (St Mary Abchurch, City of London) -Retired -Professor emeritus (Uppsala University, Department of Economics)

3.2. Section 2: Population Scenarios – 2040 Horizon

The scenarios for this section present the latest available data (2024) together with 2040 baseline projections. For **EU countries,** 2024 values are based on the most recent observed data from Eurostat, while 2040 projections follow the EUROPOP2023 baseline. For the **United Kingdom**, both UN and ONS projection variants are provided; in both cases, the 2024 figures reflect projected or estimated values rather than fully observed outcomes.

Some 2024 observations are marked as provisional, estimated, or subject to methodological breaks in time series. These details are documented in the accompanying data file. Respondents are asked to assess the likelihood of alternative demographic trajectories relative to the respective 2040 baseline projection.

Respondents were asked to assess the likelihood of alternative demographic trajectories relative to the respective 2040 baseline projection. Since most of the responses received are from the UK (60%), we have focused on the results from this country.

United Kingdom

The first projection deals with **fertility rate**, according to most of the respondents FR will remain close to the baseline level for both cases.

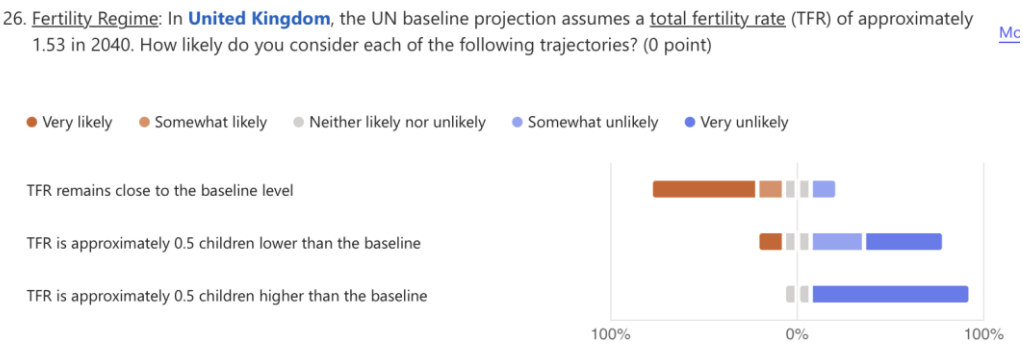
Total Fertility Rate (TFR) baseline projections

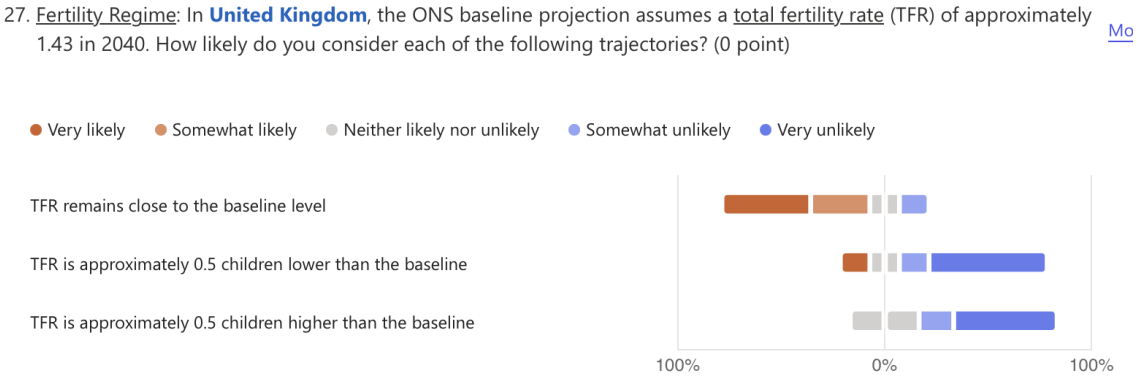






1.57	1.51	1.29	1.75	1.53 (UN)





When it comes to **migration**, again most of the respondents reckon migration will remain close to the baseline level for both cases, followed by some that consider it will be 50% higher than the baseline.

Net migration regime baseline projections

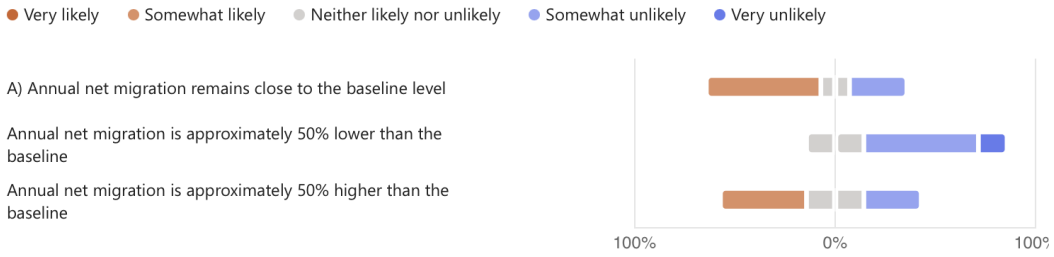




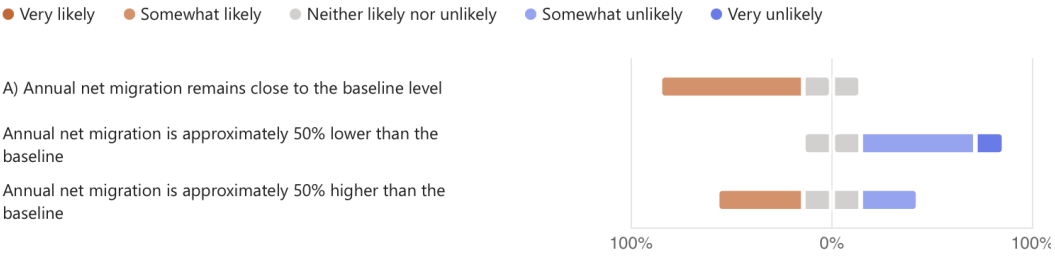


262,971 persons/year	Close to zero	231,735 per year	47,511 per year	237,000 per year (UN)

28. Net Migration Regime: The UN baseline projection in **United Kingdom** assumes annual net migration of approximat ely 237,000 in 2040. Please assess the likelihood of the following alternative migration regimes: (0 point)



29. Net Migration Regime: The ONS baseline projection in **United Kingdom** assumes annual net migration of approxima tely 340,000 in 2040. Please assess the likelihood of the following alternative migration regimes: (0 point)



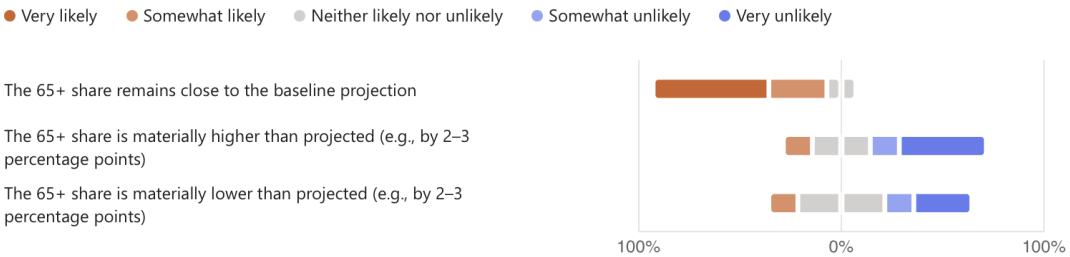
Share of population 65+



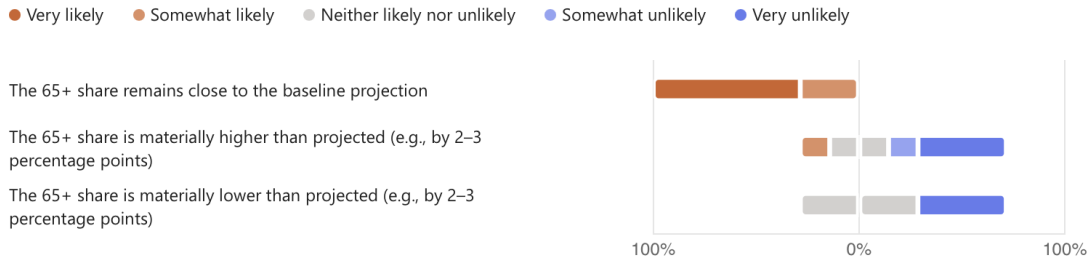
24.3% 28.9% 22.7% 23.5%
UN

What about the shared of **population aged 65 or older**? For participants it will very likely remain close to the baseline projection.

30. Ageing Outcome: Under the UN baseline projection, the share of the population aged 65+ in **United Kingdom** is pro jected to be approximately 23.5% in 2040. Please assess the likelihood of the following ageing outcomes: (0 point) More



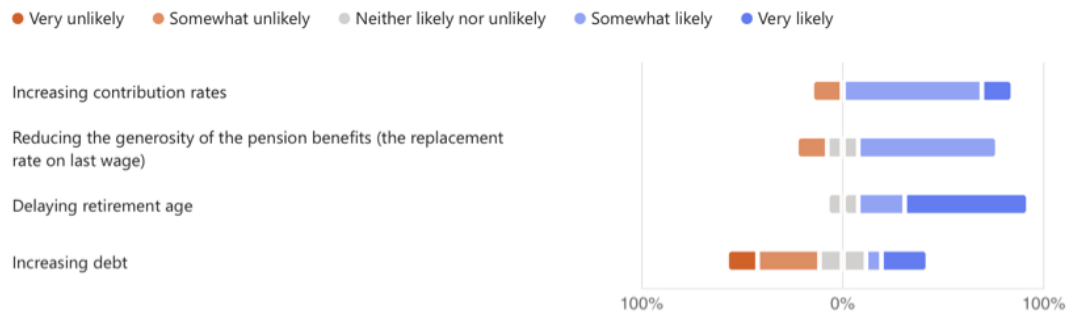
31. Ageing Outcome: Under the ONS baseline projection, the share of the population aged 65+ in **United Kingdom** is pr ojected to be approximately 22.9% in 2040. Please assess the likelihood of the following ageing outcomes: (0 point) Mor



3.3. Section 3: Policy Responses

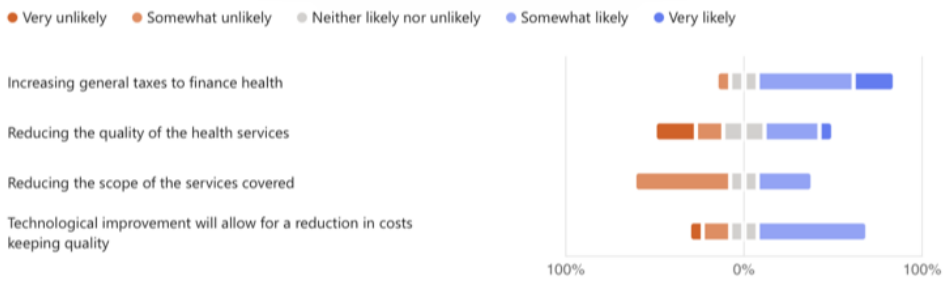
Next, we asked about how governments are addressing or will address the demographic shift. Concerning pensions reforms, for them, governments are most probably by delaying retirement ages, ahead of increasing contribution rates. Conversely, they think it's very unlikely governments will increase debt.

Pension system adjustment:
How is the government going to respond to the increase in old dependency ratio?



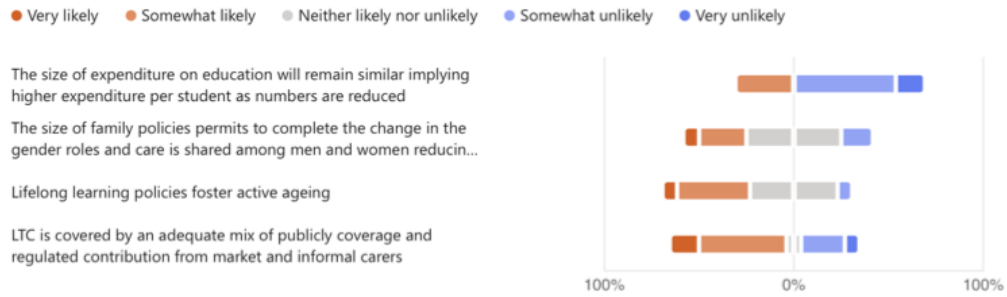
What about **health systems**? According to their opinion, it's likely governments will combine increasing taxes along with technology investment to reduce costs while maintaining quality of services. Otherwise, they do not reckon governments will reduce coverage.

Health system adjustment:
How is the government going to respond to the increase in old dependency ratio?



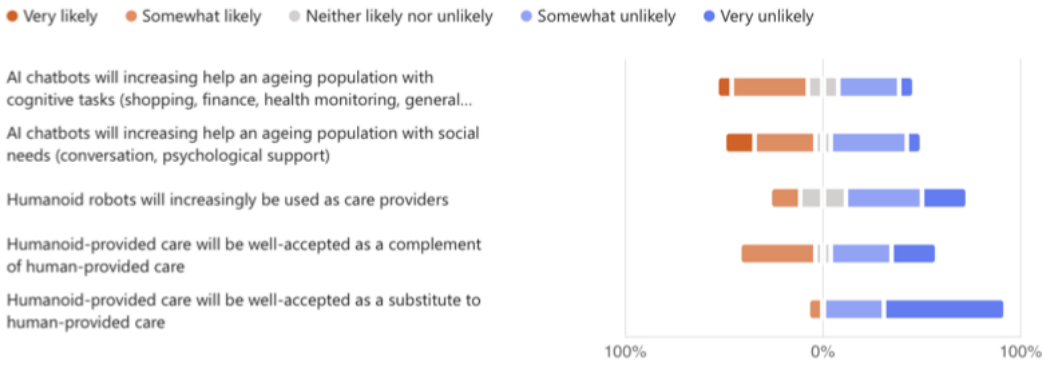
As regards to **other policies** like education, family-policies or LTC. From the policies suggested, the most significant seems to be LTC provided with a mix of public funding and formal and informal carers, followed by strategies for active and healthy ageing like lifelong learning policies. On the other way, the highly unlikely policy governments will approach is by devoting more costs per student as there will be fewer students in the pre-university education.

Other Policies: education, family-policies, LTC



3.4. Section 4: Role of technological changes

What role do you think AI and technological change will have in alleviating the consequences of population ageing?

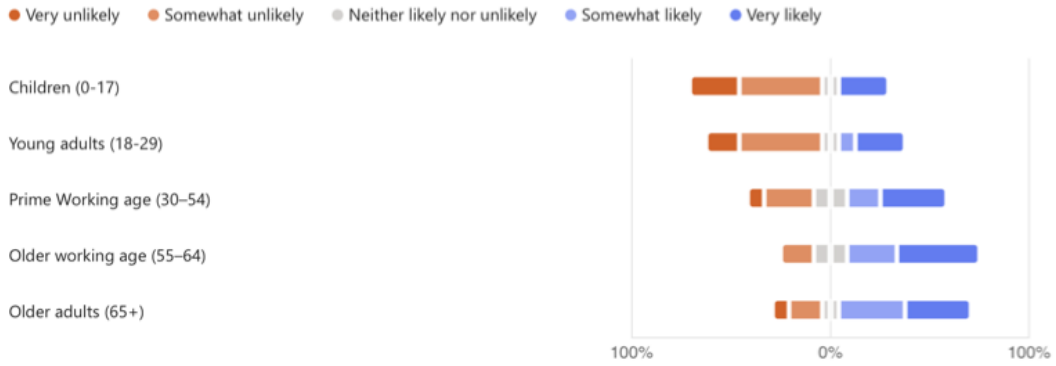


3.5. Section 5: Demographics

Expected effects across demographic subgroups

If we look at the demographic's questions starting with **age cohorts**, gender, followed by migration, income, education, families and households, as to urban/rural classification, employment, and finally different population subgroups.

How is population ageing likely to affect the well-being of the following population groups over the next 20–30 years?



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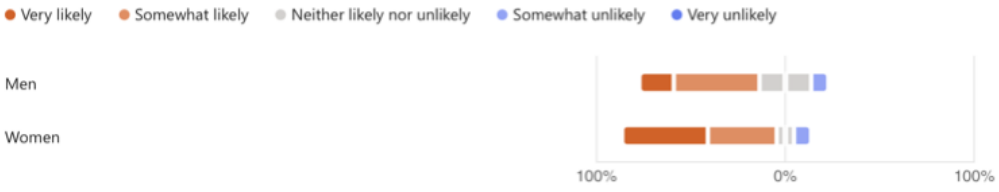
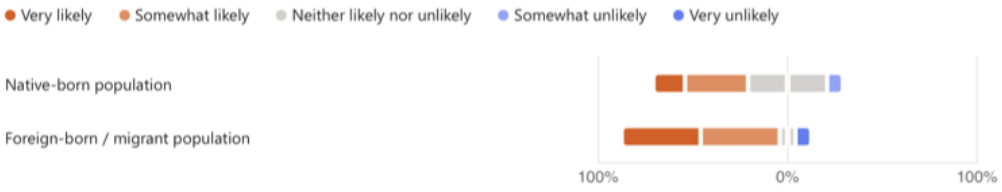


How is population ageing likely to affect the well-being of the following population groups over the next 20–30 years?



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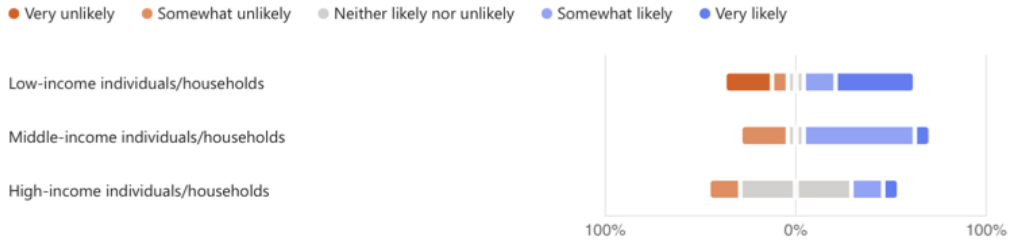
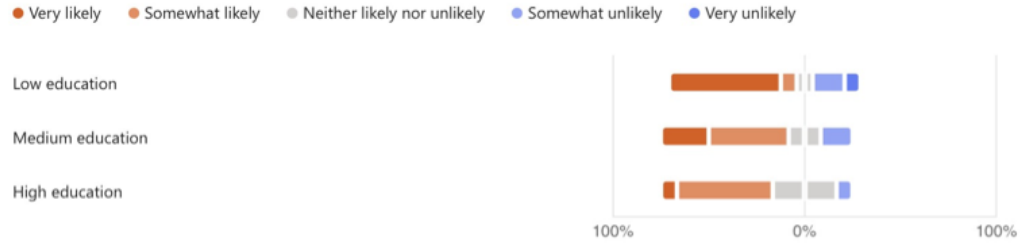
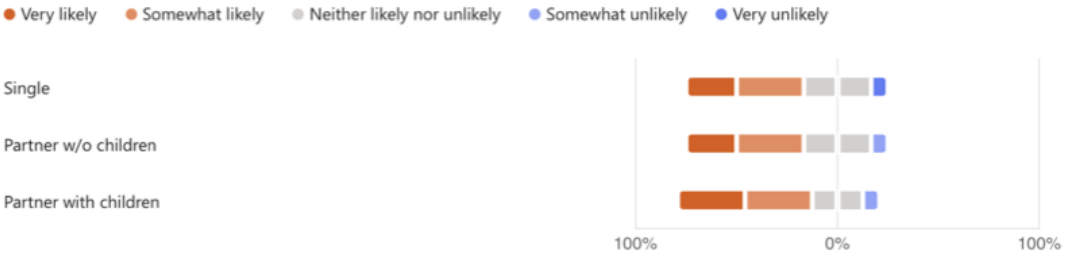


How is population ageing likely to affect the well-being of the following population groups over the next 20–30 years?



How is population ageing likely to affect the well-being of the following population groups over the next 20–30 years?



How is population ageing likely to affect the well-being of the following population groups over the next 20–30 years?



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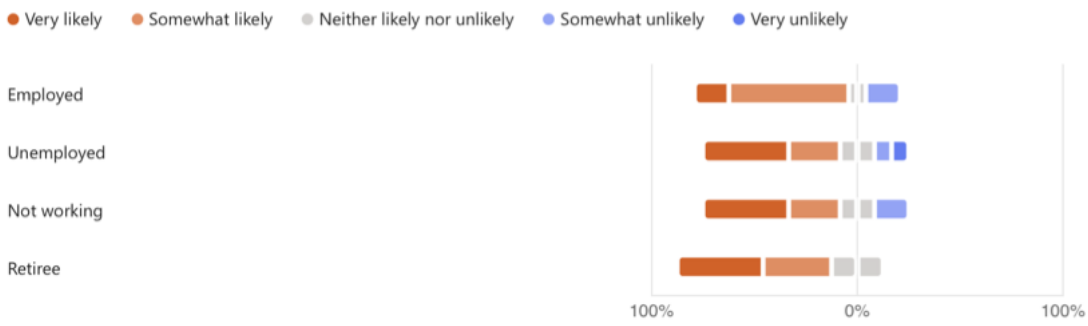
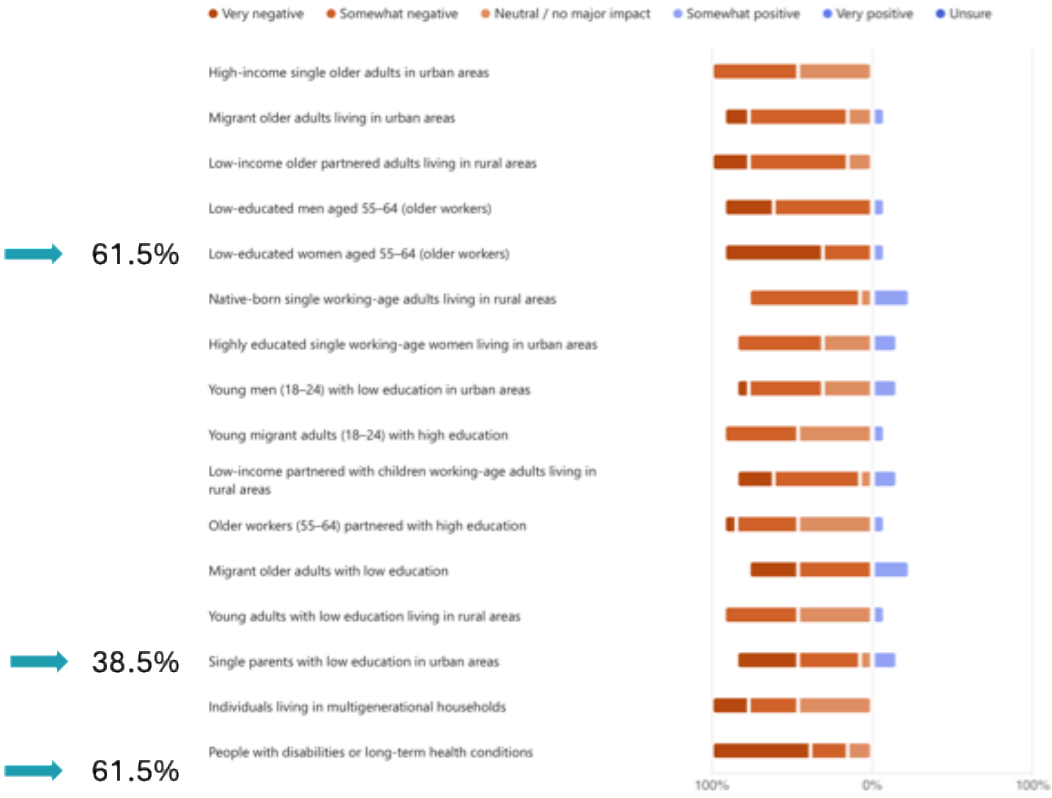


How do you expect population ageing to affect the well-being of the following groups?



Written feedback

Following this string of demographics questions, we asked for written feedback about other groups that they think might be affected either positively or negatively. Well, these are the few points raised by respondents on the positive side.

Are there any other population groups you expect to be particularly **positively** affected?

5 Responses

ID ↑	Name	Responses
1	anonymous	Children might know their grandparents for longer
2	anonymous	Women, migrant, workers
3	anonymous	no
4	anonymous	I can't think of any
5	anonymous	Not really... Potentially people currently living abroad who are able to immigrate to the UK because of labour shortages. But not likely in current political climate...

These are the few points raised by respondents on the **negative** side:

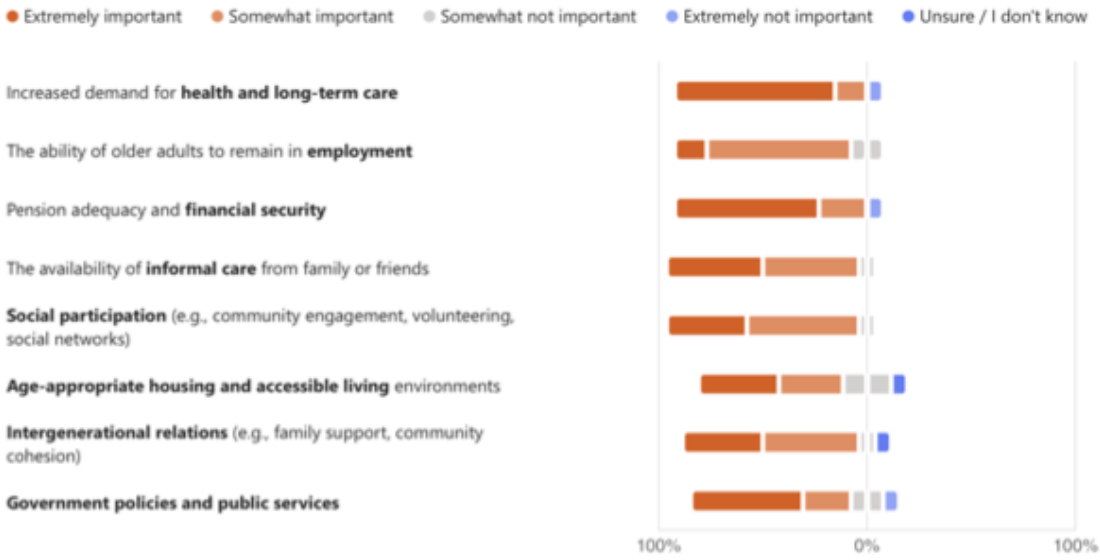
Are there any other population groups you expect to be particularly **negatively** affected?

4 Responses

ID ↑	Name	Responses
1	anonymous	single oldest
2	anonymous	no
3	anonymous	I think main groups were covered. Older women of working age, from low-income groups, will be the most affected in terms of additional care responsibilities.
4	anonymous	Working-age people who rely on the social security system

3.6. Section 6: Causal pathways

In the last section, participants were asked about the importance of the following casual pathways linking population ageing to wellbeing:



*"Looking at the long time-scales of the project, I would expect that the worsening of **climate change** will have a considerable negative effect on the wellbeing, especially of **older people**. But that does not seem to feature in the survey".*

When it comes to the greatest impact these casual pathways will have on wellbeing, respondents think these are pension and financial security, public services, followed by social participation. To a lesser extent, health and care need, labour market participation, housing and environment, informal care and intergenerational relationships.

Which of the following **pathways** do you believe have the greatest impact on well-being in ageing populations?

1.	Health and care needs	15.4%
2.	Labour market participation	15.4%
3.	Pension and financial security	30.8%
4.	Informal care availability	7.7%
5.	Social participation	23.1%
6.	Housing and environment	15.4%
7.	Intergenerational relationships	7.7%
8.	Public services and policy	30.8%

3.7. Experience in answering this survey

Overall, respondents were satisfied with taking part on this questionnaire:



4. Main findings and implications for WELLSIM

The consultation provides two main insights for WELLSIM: one concerning the choice of demographic scenarios, and the other concerning the expected consequences of population ageing for individual and household well-being.

Need for departing from official demographic projections

The consultation provides limited support for departing substantially from official demographic projections when defining the baseline scenarios. Focusing on the United Kingdom, which accounts for approximately 60% of responses, participants generally considered the official UN and ONS projections for 2040 to be plausible. In particular, most respondents expected fertility rates, net migration and the proportion of the population aged 65 or over to remain close to their respective baseline projections.

Alternative scenarios involving substantial deviations from the baseline—such as fertility rates differing by 0.5 children per woman, net migration differing by 50%, or the share of older people differing by 2–3 percentage points—were generally considered less likely. There was, however, some indication that higher-than-projected migration was considered more plausible than lower migration.

These findings suggest that official demographic projections provide a reasonable starting point for WELLSIM's analysis, without a clear justification for systematically adjusting their central assumptions. Nevertheless, exploring alternative demographic trajectories remains valuable for assessing the sensitivity of well-being outcomes to demographic uncertainty. Such scenarios should be interpreted primarily as counterfactual or sensitivity analyses rather than as alternative forecasts endorsed by the consultation.

Expected impact of demographic change on well-being

Respondents generally anticipated that population ageing would have negative consequences for well-being over the next 20–30 years, although the magnitude of these effects was expected to vary across population groups.

The assessment of detailed demographic profiles revealed predominantly negative expectations across almost all groups considered. Particularly strong concerns emerged for people with disabilities or long-term health conditions and for low-educated women aged 55–64, with 61.5% of respondents anticipating a very negative impact for each group. Other potentially vulnerable groups include older migrants, low-income households, single parents with low education and individuals facing additional care responsibilities. These findings highlight the importance of considering intersecting dimensions of disadvantage rather than analysing the effects of ageing exclusively by age group.

When asked to identify the main pathways through which population ageing would affect well-being, respondents most frequently selected pension adequacy and financial security and government policies and public services (30.8% each), followed by social participation (23.1%). Health and long-term care needs, labour market participation and housing were also identified as important channels, alongside informal care and intergenerational relationships.

The consultation also highlighted the potential importance of policy responses in moderating these effects. Respondents anticipated adjustments to retirement ages, pension systems and healthcare financing, alongside greater reliance on technological innovation and a combination of formal and informal long-term care. These responses suggest that the consequences of demographic change for well-being will depend not only on demographic developments themselves, but also on the institutional and policy responses to them.

Overall, the consultation supports retaining official demographic projections as the central scenarios while placing particular emphasis on the distributional consequences of population ageing and the potential role of policy interventions. For WELLSIM, this reinforces the value of an individual-level, multidimensional approach capable of identifying which population groups are most exposed to adverse outcomes, through which mechanisms, and how alternative policies might mitigate these effects.

Finally, these conclusions should be interpreted with caution. The consultation attracted a small, self-selected group of respondents, with a strong representation from the United Kingdom and no responses from Poland. The findings should therefore be regarded as indicative stakeholder assessments that help inform modelling priorities, rather than as representative estimates of expert opinion or quantitative forecasts of future well-being.

5. Challenges and lessons for public consultations

Did we reach the right stakeholders? Did participants understand the aim of the consultation and the issues? Does this consultation help in shaping policy recommendations or model inputs?

The consultation didn't receive the responses we aimed for. Although most of the questions were closed - using a likelihood scale -, the questionnaire was too long (55 questions) and took it too much time to answer.

Here we gather a few lessons we have learned from this consultation, and which we will apply to the next consultations planned within the project:

Key challenges	Proposed actions
Very low levels of responses	Keep the questionnaire as short and specific as possible, using closed questions with predetermined and limited options for responses.
Some questions have been understood in different ways so this could have undermined the value of our findings	Making sure that questions are clear: Before officially launching the questionnaire, we could ask few volunteers to answer the questions (for example, among the researchers involved in the project).
Low Engagement	*Build more stakeholders links* from all participating countries in the project (UK, Germany, Poland, Spain and Sweden): devote further efforts to engage with the right stakeholders from all countries, involve more project partners in broadcasting the consultation. Further efforts in building understanding and explaining why are we consulting

6. Acknowledgments

This work has been supported by CHANSE and NORFACE [CHANSE-WB-275], by the *Economic and Social Research Council* (ESRC, UK) with grant No UKRI611; *Ministerio de Ciencia, Innovación y Universidades* (MCIN/AEI, Spain) with grant No PCI2025-163172; *National Science Centre* (Poland) with project reference No 2024/06/Y/HS4/00029; *Swedish Research Council for Health, Working Life and Welfare* (FORTE, Sweden) with project No 2023-01709; and *Deutsche Forschungsgemeinschaft* (DFG, German Research Foundation) with project No 539817120.

7. Annex I. Full Questionnaire

Section 1. About the respondents

1.1 Name/Surname

1.2 Type of organisation

Individual / Academic / Policymaker / Industry / Civil Society Organisation / International Organisation / Other

1.3 Organisation Name

1.4 Personal Data and Privacy Statement

Section 2. Population Scenarios – 2040 Horizon [Davit]

For this section, we present scenarios based on the latest available data (2024) together with 2040 baseline projections for **Germany, Spain, Poland, Sweden and the United Kingdom** (*technical information in Annex II*). The scenarios below present the latest available data (2024) together with 2040 baseline projections. For EU countries, 2024 values are based on the most recent observed data from Eurostat, while 2040 projections follow the EUROPOP2023 baseline. For the United Kingdom, both UN and ONS projection variants are provided; in both cases, the 2024 figures reflect projected or estimated values rather than fully observed outcomes.
Some 2024 observations are marked as provisional, estimated, or subject to methodological breaks in time series. These details are documented in the accompanying data file. Respondents are asked to assess the likelihood of alternative demographic trajectories relative to the respective 2040 baseline projection.

Please tell us the likelihood of alternative demographic trajectories relative to the respective 2040 baseline projection for the country of your choice:

Question 1 (Germany)

Latest available data (2024)	Baseline projection (2040)
- Population: 83,456,045 - Total Fertility Rate (TFR): 1.39 - Net migration: 451,736 per year - Share aged 65+: 22.4%	- Population: 85,183,945 - Total Fertility Rate (TFR): 1.57 - Net migration: 262,971 per year - Share aged 65+: 26.8%

Please indicate your assessment on the following scale: Very likely / Likely / Unsure / Unlikely

Question 1 – Fertility regime

The baseline projection assumes a total fertility rate (TFR) of approximately 1.57 in 2040. How likely do you consider each of the following trajectories?

A) TFR remains close to the baseline level

B) TFR is approximately 0.5 children lower than the baseline

C) TFR is approximately 0.5 children higher than the baseline
Question 2 – Net Migration regime
The baseline projection assumes annual net migration of approximately 262,971 persons in 2040. Please assess the likelihood of the following alternative migration regimes:
A) Annual net migration remains close to the baseline level
B) Annual net migration is approximately 50% lower than the baseline
C) Annual net migration is approximately 50% higher than the baseline
Question 3 – Ageing outcome
Under the baseline projection, the share of the population aged 65+ is projected to be approximately 26.8% in 2040. Please assess the likelihood of the following ageing outcomes:
A) The 65+ share remains close to the baseline projection
B) The 65+ share is materially higher than projected (e.g., by 2–3 percentage points)
C) The 65+ share is materially lower than projected (e.g., by 2–3 percentage points)

Question 2 (Spain)

Latest available data (2024)	Baseline projection (2040)
- Population: 48,619,695 - Total Fertility Rate (TFR): 1.10 - Net migration: 576,700 per year - Share aged 65+: 20.4%	- Population: 50,237,193 - Total Fertility Rate (TFR): 1.29 - Net migration: 231,735 per year - Share aged 65+: 28.9%

Please indicate your assessment on the following scale: Very likely / Likely / Unsure / Unlikely

Question 1 – Fertility regime
The baseline projection assumes a total fertility rate (TFR) of approximately 1.29 in 2040. How likely do you consider each of the following trajectories?
A) TFR remains close to the baseline level
B) TFR is approximately 0.5 children lower than the baseline
C) TFR is approximately 0.5 children higher than the baseline
Question 2 – Net Migration regime
The baseline projection assumes annual net migration of approximately 231,735 persons in 2040. Please assess the likelihood of the following alternative migration regimes:
A) Annual net migration remains close to the baseline level
B) Annual net migration is approximately 50% lower than the baseline
C) Annual net migration is approximately 50% higher than the baseline
Question 3 – Ageing outcome
Under the baseline projection, the share of the population aged 65+ is projected to be approximately 28.9% in 2040. Please assess the likelihood of the following ageing outcomes:
A) The 65+ share remains close to the baseline projection
B) The 65+ share is materially higher than projected (e.g., by 2–3 percentage points)
C) The 65+ share is materially lower than projected (e.g., by 2–3 percentage points)

Question 3 (Poland)

Latest available data (2024)	Baseline projection (2040)
- Population: 36,620,970 - Total Fertility Rate (TFR): 1.14 - Net migration: 33,247 per year - Share aged 65+: 20.5%	- Population: 35,844,414 - Total Fertility Rate (TFR): 1.51 - Net migration: 43,484 per year - Share aged 65+: 24.3%

Please indicate your assessment on the following scale: Very likely / Likely / Unsure / Unlikely

Question 1 – Fertility regime
The baseline projection assumes a total fertility rate (TFR) of approximately 1.51 in 2040. How likely do you consider each of the following trajectories?
A) TFR remains close to the baseline level
B) TFR is approximately 0.5 children lower than the baseline
C) TFR is approximately 0.5 children higher than the baseline

Question 2 – Net Migration regime
The baseline projection assumes net migration close to zero in 2040. Please assess the likelihood of the following migration regimes:
A) Continued near-zero net migration
B) A shift to moderate net immigration (e.g., around +50,000 annually)
C) A shift to moderate net emigration (e.g., around –50,000 annually)

Question 3 – Ageing outcome
Under the baseline projection, the share of the population aged 65+ is projected to be approximately 24.3% in 2040. Please assess the likelihood of the following ageing outcomes:
A) The 65+ share remains close to the baseline projection
B) The 65+ share is materially higher than projected (e.g., by 2–3 percentage points)
C) The 65+ share is materially lower than projected (e.g., by 2–3 percentage points)

Question 4 (Sweden)

Latest available data (2024)	Baseline projection (2040)
- Population: 10,551,707 - Total Fertility Rate (TFR): 1.43 - Net migration: 28,820 per year - Share aged 65+: 20.6%	- Population: 11,581,390 - Total Fertility Rate (TFR): 1.75 - Net migration: 47,511 per year - Share aged 65+: 22.7%

Please indicate your assessment on the following scale: Very likely / Likely / Unsure / Unlikely
Question 1 – Fertility regime
The baseline projection assumes a total fertility rate (TFR) of approximately 1.75 in 2040. How likely do you consider each of the following trajectories?
A) TFR remains close to the baseline level
B) TFR is approximately 0.5 children lower than the baseline

C) TFR is approximately 0.5 children higher than the baseline

Question 2 – Net Migration regime

The baseline projection assumes annual net migration of approximately 47,511 persons in 2040. Please assess the likelihood of the following alternative migration regimes:

A) Annual net migration remains close to the baseline level

B) Annual net migration is approximately 50% lower than the baseline

C) Annual net migration is approximately 50% higher than the baseline

Question 3 – Ageing outcome

Under the baseline projection, the share of the population aged 65+ is projected to be approximately 22.7% in 2040. Please assess the likelihood of the following ageing outcomes:

A) The 65+ share remains close to the baseline projection

B) The 65+ share is materially higher than projected (e.g., by 2–3 percentage points)

C) The 65+ share is materially lower than projected (e.g., by 2–3 percentage points)

Question 5 (United Kingdom, UN)

Latest available data (2024)	Baseline projection (2040)
- Population: 69,353,340 - Total Fertility Rate (TFR): 1.55 - Net migration: 417,114 per year - Share aged 65+: 19.6%	- Population: 73,900,000 - Total Fertility Rate (TFR): 1.53 - Net migration: 237,000 per year - Share aged 65+: 23.5%

Please indicate your assessment on the following scale: Very likely / Likely / Unsure / Unlikely

Question 1 – Fertility regime

The baseline projection assumes a total fertility rate (TFR) of approximately 1.53 in 2040. How likely do you consider each of the following trajectories?

A) TFR remains close to the baseline level

B) TFR is approximately 0.5 children lower than the baseline

C) TFR is approximately 0.5 children higher than the baseline

Question 2 – Net Migration regime

The baseline projection assumes annual net migration of approximately 237,000 persons in 2040. Please assess the likelihood of the following alternative migration regimes:

A) Annual net migration remains close to the baseline level

B) Annual net migration is approximately 50% lower than the baseline

C) Annual net migration is approximately 50% higher than the baseline

Question 3 – Ageing outcome

Under the baseline projection, the share of the population aged 65+ is projected to be approximately 23.5% in 2040. Please assess the likelihood of the following ageing outcomes:

A) The 65+ share remains close to the baseline projection

B) The 65+ share is materially higher than projected (e.g., by 2–3 percentage points)

C) The 65+ share is materially lower than projected (e.g., by 2–3 percentage points)

United Kingdom (ONS)

Latest available data (2024)	Baseline projection (2040)
- Population: 68,492,000 - Total Fertility Rate (TFR): 1.43 - Net migration: 728,000 per year - Share aged 65+: 19.2%	- Population: 73,532,000 - Total Fertility Rate (TFR): 1.43 - Net migration: 340,000 per year - Share aged 65+: 22.9%

Please indicate your assessment on the following scale: Very likely / Likely / Unsure / Unlikely

Question 1 – Fertility regime

The baseline projection assumes a total fertility rate (TFR) of approximately 1.53 in 2040. How likely do you consider each of the following trajectories?

A) TFR remains close to the baseline level

B) TFR is approximately 0.5 children lower than the baseline

C) TFR is approximately 0.5 children higher than the baseline

Question 2 – Net Migration regime

The baseline projection assumes annual net migration of approximately 237,000 persons in 2040. Please assess the likelihood of the following alternative migration regimes:

A) Annual net migration remains close to the baseline level

B) Annual net migration is approximately 50% lower than the baseline

C) Annual net migration is approximately 50% higher than the baseline

Question 3 – Ageing outcome

Under the baseline projection, the share of the population aged 65+ is projected to be approximately 23.5% in 2040. Please assess the likelihood of the following ageing outcomes:

A) The 65+ share remains close to the baseline projection

B) The 65+ share is materially higher than projected (e.g., by 2–3 percentage points)

C) The 65+ share is materially lower than projected (e.g., by 2–3 percentage points)

Section 3. Policy responses to ensure fiscal sustainability during the demographic transition while supporting well-being **[Cio]**

Question 6

In your opinion, how are governments going to respond to population ageing over the next 20–30 years?

3.1 Pension system adjustment: The government is going to respond to the increase in old dependency ratio mentioned before, by:

	Very likely	Likely	Not Likely	Very unlikely
A) Increasing contribution rates				
B) Reducing the generosity of the pension benefits (the replacement rate on last wage)				
C) Delaying retirement age				
D) Increasing debt				

3.2 Health system adjustment: The government is going to respond to the increase in old dependency ratio mentioned before, by:

	Very likely	Likely	Not Likely	Very unlikely
A) Increasing general taxes to finance health				
B) Reducing the quality of the health services				
C) Reducing the scope of the services covered				
D) Technological improvement will allow for a reduction in costs keeping quality				

3.3 Other policies: Please assess the impact of ageing on other policies:

	Very likely	Likely	Not Likely	Very unlikely
A) The size of expenditure on education will remail similar implying higher expenditure per student as numbers are reduced				
B) The size of family policies permits to complete the change in the gender roles and care is shared among men and women reducing the gender gap				
C) Lifelong learning policies foster active ageing				
D) LTC is covered by an adequate mix of publicly coverage and regulated contribution from market and informal carers				

Section 4. Role of technological change (robots, AI) [Matteo]

What do you think the role of AI and technological change (including the diffusion of humanoid robots) will have in alleviating the consequences of population ageing?

	Very likely	Likely	Not Likely	Very unlikely
A) AI chatbots will increasing help an ageing population with cognitive tasks (shopping, finance, health monitoring, general reminders)				
B) AI chatbots will increasing help an ageing population with social needs (conversation, psychological support)				
C) Humanoid robots will increasingly be used as care providers				
D) Humanoid-provided care will be well-accepted as a complement of human-provided care				
E) Humanoid-provided care will be well-accepted as a substitute to human-provided care				

Section 4. Expected effects across demographic subgroups [Agneta]

According to the WHO, between 2015 and 2050, the proportion of the world's population over 60 years will nearly double from 12% to 22% (https://www.who.int/news-room/fact-sheets/detail/ageing-and-health).

Question 7

4.1 In your opinion, how is population ageing likely to affect the well-being of the following population groups over the next 20–30 years? Please indicate the expected direction of **impact**.

Age	Very negative	Somewhat negative	Neutral / No major impact	Somewhat positive	Very positive	Unsure
Children (0–17)						
Young adults (18–29)						
Prime Working age (30–54)						
Older working age (55–64)						
Older adults (65+)						

Sex	Very negative	Somewhat negative	Neutral / No major impact	Somewhat positive	Very positive	Unsure
Men						
Women						

Migrant Background	Very negative	Somewhat negative	Neutral / No major impact	Somewhat positive	Very positive	Unsure
Native-born population						
Foreign-born / migrant population						

Income	Very negative	Somewhat negative	Neutral / No major impact	Somewhat positive	Very positive	Unsure
Low-income individuals/households						
Middle-income individuals/households						
High-income individuals/households						

Education	Very negative	Somewhat negative	Neutral / No major impact	Somewhat positive	Very positive	Unsure
Low education						
Medium education						
High educations						

Family-Household formation	Very negative	Somewhat negative	Neutral / No major impact	Somewhat positive	Very positive	Unsure

Single						
Partner w/o children						
Partner with children						

Area of residence	Very negative	Somewhat negative	Neutral / No major impact	Somewhat positive	Very positive	Unsure
Urban						
Rural						

Labour market attachment	Very negative	Somewhat negative	Neutral / No major impact	Somewhat positive	Very positive	Unsure
Employed						
Unemployed						
Not working						
Retiree						

Question 8

4.2 Intersectional groups most affected: Considering combinations of age, income, and migrant background, which groups do you expect to be most affected by population ageing in terms of well-being?

4.2.1 **Most negatively** affected (up to three groups)

Older adults (65+)	
Low-income native-born older adults	
Low-income migrant older adults	
High-income native-born older adults	
High-income migrant older adults	

Working-age adults (25–64)	
Low-income native-born working-age adults	
Low-income migrant working-age adults	
High-income native-born working-age adults	
High-income migrant working-age adults	

Young adults (18–24)	
Low-income native-born young adults	
Low-income migrant young adults	
High-income native-born young adults	
High-income migrant young adults	

4.2.2 **Most positively** affected (up to three groups)

Older adults (65+)	
Low-income native-born older adults	
Low-income migrant older adults	
High-income native-born older adults	
High-income migrant older adults	

Working-age adults (25–64)	
Low-income native-born working-age adults	
Low-income migrant working-age adults	
High-income native-born working-age adults	
High-income migrant working-age adults	

Young adults (18–24)	
Low-income native-born young adults	
Low-income migrant young adults	
High-income native-born young adults	
High-income migrant young adults	

Question 9

4.3 Other population groups: How do you expect population ageing to affect the well-being of the following groups over the next 20–30 years?

Groups	Very negative	Somewhat negative	Neutral / No major impact	Somewhat positive	Very positive	Unsure
High-income single older adults in urban areas						
Migrant older adults living in urban areas						
Low-income older partnered adults living in rural areas						
Low-educated men aged 55–64 (older workers)						
Low-educated women aged 55–64 (older workers)						
Native-born single working-age adults living in rural areas						
Highly educated single working-age women living in urban areas						
Young men (18–24) with low education in urban areas						
Young migrant adults (18–24) with high education						
Low-income partnered with children working-age adults living in rural areas						
Older workers (55–64) partnered with high education						
Migrant older adults with low education						
Young adults with low education living in rural areas						
Single parents with low education in urban areas						
Individuals living in multigenerational households						

People with disabilities or long-term health conditions						

Question 10

4.4 In your opinion, are there any other population groups you expect to be particularly **negatively** affected by population ageing? [*Open question*]

Question 11

4.5 In your opinion, are there any other population groups you expect to be particularly **positively** affected by population ageing? [*Open question*]

Section 5. Importance of different causal pathways linking population ageing to individual well-being **[Claire]**

Question 12

5.1 Please tell us what you think about the following causal pathways linking population ageing to individual well-being:

	Extremely important	Very important	Moderately important	Slightly important	Not important	Unsure / I don't know
Increased demand for **health and long-term care**						
The ability of older adults to remain in **employment**						
Pension adequacy and **financial security**						
The availability of **informal care** from family or friends						
Social participation (e.g., community engagement, volunteering, social networks)						
Age-appropriate housing and accessible living environments						
Intergenerational relations (e.g., family support, community cohesion)						
Government policies and public services						

Please elaborate / Further comments:

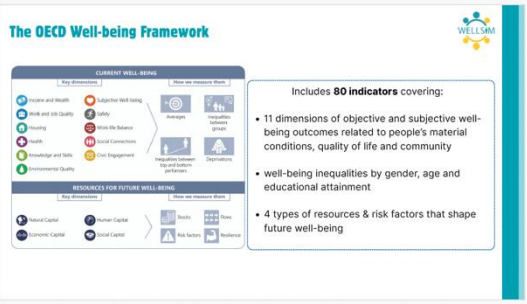
Question 13

5.2 Which three of the following pathways do you believe have the greatest impact on well-being in ageing populations? (Up to three or Rank from least important to most important)

	Ranking 1-8
Health and care needs	
Labour market participation	
Pension and financial security	
Informal care availability	
Social participation	
Housing and environment	
Intergenerational relationships	
Public services and policy	

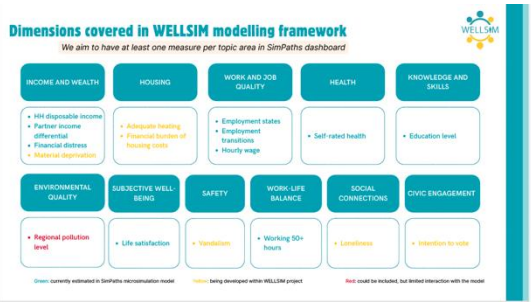
8. Annex II. Consultation brief



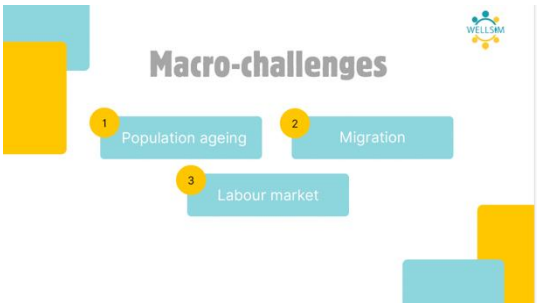


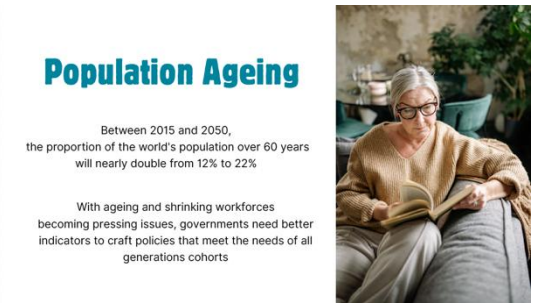




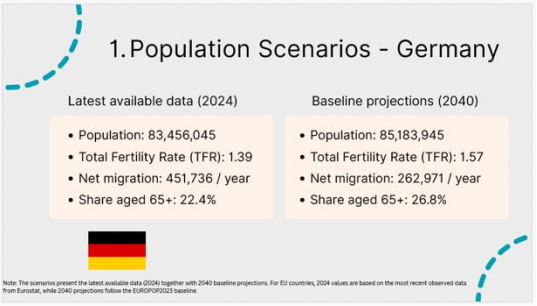









Public Consultation
Topic sections
1. Population Scenarios
2. Policy Responses to ensure fiscal sustainability
3. Role of technological and digital changes (AI, Robotics)
4. Expected effects accross demographic subgroups
5. Casual pathways linking population ageing to individual wellbeing


1. Population Scenarios - Germany
Latest available data (2024)
• Population: 83,456,045
• Total Fertility Rate (TFR): 1.39
• Net migration: 451,736 / year
• Share aged 65+: 22.4%
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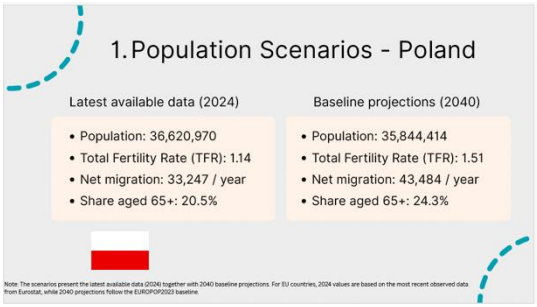
• Share aged 65+: 26.8%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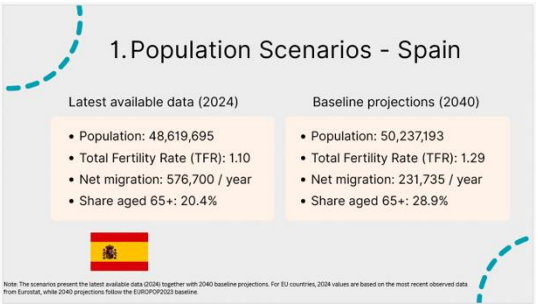
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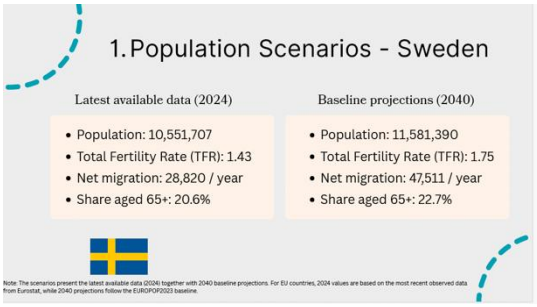
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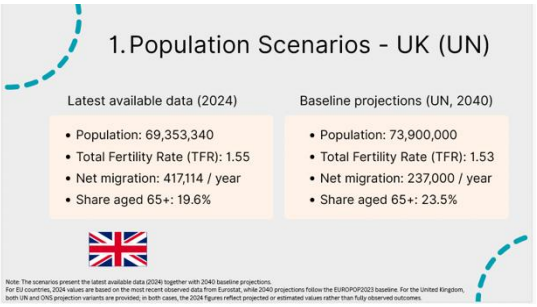
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• Share aged 65+: 19.6%
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• Net migration: 237,000 / year
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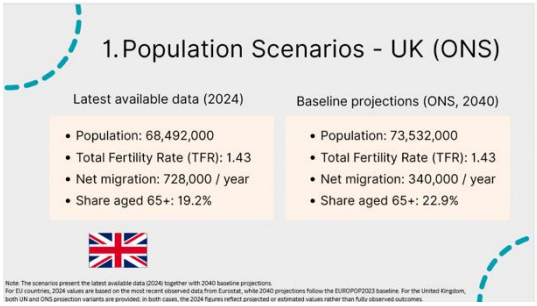
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• Share aged 65+: 19.2%
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• Total Fertility Rate (TFR): 1.43
• Net migration: 340,000 / year
• Share aged 65+: 22.9%


Share your feedback
To complete the survey:
• Follow this link or scan the QR code
• Most of the questions are closed with a scale, but have space to include additional comments
• It will take you about 25 minutes
Thank you for your time!