

## **Designing Homes for Healthy Cognitive Ageing (DesHCA) Project: Testing Home Designs in Virtual Reality (WP5) Participant Information Sheet**

### **Background**

The Designing Homes for Healthy Cognitive Ageing (DesHCA) project aims to identify housing designs, including adaptations, that can support older people, including those living with cognitive change, to live well at home for longer. Improved housing design can enable better lives, by helping to postpone the impact of cognitive change, improve quality of life, and prevent admission to care settings.

Over the three-year lifespan of the DesHCA project, we are inviting older people, including those living with cognitive change, as well as housing professionals to participate in a wide variety of research activities. These activities have included home mapping exercises to help us to better understand how people's homes work for them; using virtual reality to test potential design solutions; and creating demonstrators to test how the designs might be implemented.

The DesHCA project is led by a team of researchers at the University of Stirling, alongside partners including local authorities, building companies, and games developers, who are all helping to inform the research and implement the resulting design solutions.

### **Invitation**

We would like to invite you to take part in a research event, where you will be given the opportunity to review prototype home designs using virtual reality (VR) technology. As part of your involvement, you will be invited to provide feedback on the designs.

Information collected during this research will help us to develop the final version of our home designs, which will be used to develop physical and digital demonstrators that illustrate the importance of supportive design for older people. It will also inform the final phases of other activities in the wider research project.

### **Why have I been invited to take part?**

You have been invited to take part because you are an older person, or a housing related professional. We believe that your lived experience and/or subject expertise could help improve the outcomes of the DesHCA project.

## Do I have to take part?

No, you do not have to take part. If you decide to take part, you can withdraw your participation at any time, without needing to explain, and without penalty. You only need to tell the research team of your decision.

You may also choose to withdraw any data that we have collected from or about you during the event by contacting us within 30 days and asking for your data to be withdrawn. You do not have to give a reason for this choice, and there is no penalty associated with doing so. Please note that due to the nature of group activities, and how they are recorded, it may not be possible to completely remove all data related to you or generated by you. Similarly, after 30 days once the data are being analysed and/or later when results are published it may not be possible to remove your data from the study.

You may keep this information sheet for as long as you wish to. If you choose to take part in the event, you will be sent a consent form ahead of time. You may complete this online, or to complete a physical copy which you can return to the research team by post or in-person on the day of the event.

Please note that choosing not to take part in this aspect of our research will not affect your ability to contribute to other parts of the study.

## What will happen if I take part?

If you decide to take part, you will join members of the research team and other individuals at a half-day, in-person event, either in a morning or afternoon at an agreed upon venue.

The workshop will begin with an introduction from a member of the research team explaining the project, purpose of the workshop, and the order of events throughout the workshop.

You will then be invited, as part of the group, to review and feedback on prototype home designs. During the event the VR model will be available to view on a screen, but you will be provided with an opportunity try out the VR designs directly, if you wish, using an Oculus Quest 2 VR headset, shown in the image.



*Figure 1: Oculus Quest Headset*

Everyone who takes part in the VR activity will be paired up with a member of the research team who will support you throughout the process. This will involve adjusting the headset to make sure you are comfortable, helping you learn the controls, and standing close by while you explore the VR model. You can move around the VR model in different ways depending on how comfortable you feel. At the start of the activity the team member supporting you will ask if you prefer to use the system standing up, (letting you to walk around the space), sitting on a wheeled desk chair, (letting you to wheel around the space), or on a stationary chair- please do not hesitate to choose the option which makes you feel the most comfortable, and let the team know if you feel uncomfortable or which to change how you move around the 3D model at any time.

We may record the conversations you have with the research team and your contributions to group discussions while you are looking at and reviewing the home designs. These recordings will help us develop our final models and inform the final phases of the project.

### **What happens to my data?**

Information about how your personal data will be managed, and your rights under GDPR (General Data Protection Regulation) legislation, can be found in the Data Management Information Sheet you have been given. Your responses will be anonymised to ensure confidentiality.

Under the conditions of the funding provider for the DesHCA project, the Economic and Social Research Council (ESRC), all data collected must be anonymised and archived as part of the UK Data Service. This a database of anonymised outputs from previous ESRC-funded projects, which is accessible to fellow researchers. Your anonymised data will only be shared on this database with your consent. For further information, please see <https://ukdataservice.ac.uk/about>

### **Are there any potential risks in taking part?**

The experience of virtual reality and VR-headsets can potentially make some people feel uncomfortable or disorientated. Headset based VR is an immersive, mostly visual experience, so it is possible to lose balance, or accidentally bump into objects (such as furniture) in the immediate real-world environment. To help prevent these risks, any participants who choose to try out the VR headset will be directly supported by a researcher. The researcher will explain how the VR headset and controllers and safety features work, then act as a 'spotter' to warn of any obstacles that might not be visible whilst using the headset.

We also recognise that any event involving bringing people together represents a certain level of risk. The research team will always arrange events to comply with the up-to-date guidance around COVID-19 and flu, however we ask that participants be mindful of others and avoid attending workshops if they have any symptoms of COVID-19, the flu, or other illnesses, or have any other reason to believe they are unwell.

### **Are there any benefits in taking part?**

There are no direct benefits from taking part in this research. However, we hope that you will find it an enjoyable experience, and your contribution will be of great value to our work.

### **Will the research be published?**

Knowledge gained from the event will be used to inform the development of the final versions of the VR home models and may be used in other research activities within DesHCA such as future workshops.

The data from this event may also be published in a variety of formats including academic journal articles, conference presentations, blogs on the project website, policy briefs, and professional training materials. Data used in this way will always be anonymised to protect your identity.

The University of Stirling is committed to making research publicly accessible. So, unless funder/publisher requirements prevent us, this research will be shared publicly through our open-access repository, known as STORRE.

### **Who is organising and funding the research?**

The research is funded by the UKRI (UK Research and Innovation) Economic & Social Research Council, as part of their Healthy Ageing Challenge funding stream.

### **Who has reviewed this research project?**

The ethical approaches of this project have been approved via the University of Stirling General University Ethics Panel.

### **Who do I contact if I have more questions about the study?**

If you would like to discuss the research with someone, please contact the DesHCA research team at [deshcaresearch@stir.ac.uk](mailto:deshcaresearch@stir.ac.uk) to receive more information.

## **Who do I contact if I have concerns about this study or wish to complain?**

If you have concerns or wish to complain about this research you may contact Professor Liz Forbat, Deputy Dean of the Faculty of Social Sciences, by email at [elizabeth.forbat1@stir.ac.uk](mailto:elizabeth.forbat1@stir.ac.uk).

**Thank you for your interest in this project.**