

Innovate UK

# Process evaluation of the Longitude Prize on Dementia Discovery Awards

April 2024

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# Executive Summary

## Overview

The Longitude Prize on Dementia (LPoD) is funded by Innovate UK, Alzheimer's Society and the Medical Research Council (MRC) and is being delivered by Challenge Works.

The LPoD aims to drive the creation of innovative technology that will enable people with dementia to live independently for longer. The Prize is a competition, split into three phases, the Discovery Awards, the Finalist Awards and one winner selected at the end. This element makes the LPoD different to typical funding methods used by partners, especially Innovate UK. Innovators were invited to apply to the Prize in September 2022 and attracted 163 eligible applications from across the globe.<sup>1</sup> Of these, 24 successful applications were selected to progress into the Discovery Awards phase.

Discovery Awardees are provided with financial and non-financial support to help them to develop their solution. A key element of the LPoD is that solutions should be co-created with people living with dementia.

Innovate UK has commissioned Cordis Bright to carry out a process evaluation of the Prize's initial entry and Discovery Awards.

The process evaluation aims to find out about how the approach, processes, implementation and delivery of the LPoD Discovery Awards are working to select and support promising Awardees to develop solutions to help people with dementia retain their independence. This will help to inform the continued delivery of the programme and similar future investments.

## Process evaluation methodology

The process evaluation is informed by:

- **A review of relevant operational and project management documentation** for the LPoD, provided by Challenge Works, Innovate UK and Alzheimer's Society.
- **An online survey of applicants to the LPoD.** The survey questions were designed and agreed with Innovate UK and partners.
- **Interviews with 20 of the 24 Discovery Awardees**, to explore their experiences of the LPoD and what has worked well or less well.

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<sup>1</sup> 175 applications were submitted, of which 12 were found to be out of scope and excluded due to being duplicate applications or deemed to be completely out of scope i.e. not relevant ideas.

- **Interviews with 10 key stakeholders** with knowledge of the design, administration and delivery of the LPoD.

Fieldwork took place between May 2023 and early February 2024.

## Key findings

### Governance

Overall, governance of the LPoD has been effective, and has become stronger over time as the new partnership of Innovate UK, Alzheimer's Society and Challenge Works better understood each other's priorities and strengths. The LPoD is the first time these organisations have all worked together, although this is the second Prize collaboration between Innovate UK and Challenge Works. Stakeholders noted that the three partners have some differing needs and expectations, for instance in terms of monitoring of financial spend and reporting from Awardees.

Innovate UK's additional requirements have increased the rigor of the Prize, but this has needed greater resources and effort to deliver by Challenge Works. Stakeholders reflected that the Programme Board meetings have provided space for helpful discussions and problem solving, although more could have been done prior to launch of the LPoD to establish the needs of the different partners and non-negotiable elements that need to be considered.

Other areas of the governance, such as the Judging Panel and the Lived Experience Advisory Panel (LEAP) have been reasonably effective in shaping the LPoD. In particular, although the LEAP did not have a vote, their review of which applicants should be brought into the Discovery Awards was seen as valuable for ensuring that the views of those affected by dementia are included in important decision making.

### Delivery of the LPoD

Most stakeholders and Awardees felt that the LPoD has been delivered effectively, despite some challenges. Awardees generally had a positive experience and reported that the LPoD compared well to other types of funding. Aspects of the LPoD that have worked well and are viewed by stakeholders and Awardees as enablers include:

- **The application process:** This was viewed positively by most applicants who responded to the survey and they indicated that the purpose and requirements of the LPoD were clear. Awardees reflected that it was a relatively short and simple application to complete and not administratively burdensome.
- **Support for participants:** The provision of financial and non-financial support was seen as beneficial to helping Awardees develop skills and their solutions.
- **Innovator Hub resources:** The Innovator Hub is a useful resource where Awardees can access information on the LPoD, schedule mentoring sessions, and watch back recordings of workshops.

- **Insights of people with lived experience of dementia:** The involvement of the LEAP and emphasis on co-design has been important to ensuring that solutions are selected and developed with people affected by dementia at the centre. This is viewed as essential to ensure that the end product is fit for use with the target cohort.

Elements of the LPoD that have worked less well or acted as barriers within the LPoD include:

- **Lack of shared consensus over what ‘breakthrough innovation’ means to everyone involved:** Some stakeholders felt there were not many ‘breakthrough’ innovations given the more novel Prize funding mechanism. However, colleagues at Alzheimer’s Society suggest that, as there is a lack of existing technology designed for and with people affected by dementia specifically, there may be the potential for more simplistic innovations to have a bigger impact than it would in other fields. It is important that solutions are well designed to help people affected by dementia in the real world. This is a particular challenge because it requires expertise in both dementia care and technology development, which may not always go hand-in-hand.
- **The remit of the Judging Panel was exceeded:** Stakeholders indicated that 24 instead of 23 Awardees were selected for the Discovery Awards phase due to a lack of clarity and transparency around the order of preference for applicants to be taken forward and a suggestion that two team could collaborate which was rejected by the Programme Board. This meant that additional funds were needed for the 24<sup>th</sup> team.
- **Supporting a diverse set of awardees effectively:** The diversity of Awardees and their stage of development has made it more challenging to develop an appropriate non-financial support (NFS) plan that fits the varying needs of Awardees. Although the LPoD has been inclusive in terms of being open to innovators from different countries, fields of expertise and types of organisations this has led to a diverse cohort. At the time that fieldwork was carried out, it was not yet clear how this context would be taken into account in the next round of judging.
- **Delays to support:** The planning and timing of NFS has been delayed, in particular many felt that the Technology and Data support should have been provided from the start of the Discovery Awards. Stakeholders and Awardees identified a need to be informed about what support is on offer at the start of the programme, as this would enable greater planning around how to incorporate this.
- **Challenges recruiting people with dementia for product testing:** Recruitment of people with dementia to test solutions has also been a key challenge for several Awardees. Although Alzheimer’s Society and Centre for Aging and Brain Health Innovation (CABHI) have been able to offer some support in this area, greater planning of how to support recruitment, particularly for international teams, was needed.

### *Outcomes of the Discovery Awards*

Stakeholders and Awardees identified several ways in which short-term outcomes outlined in the LPoD logic model are being achieved, indicating progress towards the longer-term objectives. These outcomes included:

- **New teams attracted to the field.** The LPoD appears to have had a global reach and attracted 163 in scope applications including some new innovators to develop smart technology for people affected by dementia. The large number of applications suggests that the Prize provides sufficient incentive to attract innovators. However, a large proportion of applicants were based in the UK (n= 81/163) and USA (n=27/163), and survey data suggest that most (n=32/35) had previously received funding to develop technology and only 16 of the 35 respondents had not previously applied for funding from the LPoD partners. Therefore, it is likely only some applications came from innovators new to the field.
- **Improved innovation skills and capabilities.** NFS support offered through the LPoD, including workshops and mentoring opportunities, have helped some Awardees to develop their skills in co-design and business development. The extent of the impact is not clear.
- **New products and technologies developed.** The LPoD has enabled many Awardees to accelerate the development of their solutions through funding and NFS. Most stakeholders are confident that there are at least five good candidates developing innovative solutions who could be taken forward to the next stage of the LPoD.
- **Leverage of further investment.** Some Awardees indicated that they have been able to use their involvement in the LPoD to leverage further investment and build new collaborations. Several plan to continue working on their solution even if they are not successful in the next round of the LPoD.
- **Increased interest and activity in the problem space.** At this stage it is difficult to know the extent to which the LPoD has increased attention on the need for smart solutions to support people living with dementia. However, through the international reach, the partnerships that have been developed and external communications on the Prize, the LPoD has started to work towards this.

Awardees report that the LPoD compares well to other types of funding they had experience with, for example, they often found the application less demanding particularly as there was no need to provide detailed budgeting information which could be difficult for some in the early development stages. Awardees also appreciated the inclusion of NFS.

### **Recommendations**

The following recommendations are designed to enhance the effectiveness, reach, and impact of the LPoD and similar future investments. These should support participating innovators more effectively, and ensure the program's

governance and delivery approaches are aligned with its goals. Findings are based on fieldwork that was completed by early February 2024 and some of these recommendations have already been addressed in preparation for the Finalist Awards.

### Effective Programme Management

1. **Establish a clear governance framework early:** To prevent delays and misunderstandings, all partners should establish clear governance structures, roles, and non-negotiables at the outset. This framework should accommodate the diverse governance requirements and expectations of all partners involved.
2. **Provide clear guidance to Judges and promote consistency of approach:** Ensure that Judging Panels have a broad range of relevant expertise and that Judges with specific expertise in the field of the Prize (in this case dementia care) review each application. Establish clear guidance on the approach to be taken to reviewing applications and clarify red lines in terms of the remit of the panel.
3. **Refine monitoring processes:** Develop a balanced monitoring framework that accommodates the needs of all partners without imposing undue administrative burdens on participants. Greater understanding between partners on the purpose of monitoring would be beneficial.
4. **Improve transparency and communication:** Ensure fairness and transparency in decision-making processes and provide clear, detailed guidance on requirements and expectations for each phase of the program. Establish direct lines of communication between participants and Challenge Works for queries and support.

### Supporting Awardees

5. **Foster stronger partnerships:** If global reach is a key goal, develop strategic partnerships with organisations in various countries beyond the UK and North America to facilitate global reach and support international teams more effectively, particularly in accessing users for testing solutions.
6. **Enhance non-financial support (NFS):** Offer a more structured and comprehensive NFS package from the start of the program. Clearly communicate available support, including technology and data assistance, to allow participants to plan and incorporate these resources effectively.
7. **Leverage the Lived Experience Advisory Panel (LEAP) and support recruitment of users:** Continue involving the LEAP and others affected by dementia in all phases of the program to ensure that solutions are co-designed with and for people affected by dementia. Identify and support routes to recruit people to test solutions.
8. **Facilitate networking among Awardees:** Create more opportunities for Awardees to network, share learning, and explore potential collaborations. While maintaining the competitive nature of the Prize, encourage a culture of collaboration and mutual support among innovators.



### **Continue Process Evaluation**

9. **Assess changes made to LPoD governance:** Further evaluation of updated processes, particularly around assessment of applications and monitoring decision making, to identify whether these are working as intended.
10. **Evaluate on-going NFS:** Continue to evaluate the extent to which NFS enables Awardees to develop their solutions quickly and to a high standard. If achieving international reach remains a goal, investigate whether there are barriers to participation for international teams and develop strategies to address them.

# 1 Introduction

## 1.1 Overview

This report presents findings from the process evaluation of the Longitude Prize on Dementia (LPoD) initial entry and Discovery Award phases. Findings were informed by a review of relevant documentation, a survey of applicants to the LPoD, and stakeholder and Awardee interviews.

## 1.2 About the Longitude Prize on Dementia

The LPoD is a Prize that aims to engage and motivate the creation of innovative technology solutions to help people living with dementia maintain independence for longer. The Prize is being delivered by Challenge Works, who have previous experience at delivering similar Prizes. However, it is a relatively novel funding method for the funding partners; Innovate UK, the Alzheimer's Society and the Medical Research Council.

The LPoD provides financial as well as non-financial support to Awardees across a multistage process. The LPoD initial entry / application process ran from September 2022 to January 2023. Following judging and the selection of 24 Awardees, the Discovery phase launched from June 2023 to May 2024. Judging and selection will take place again from June 2024, with five Finalist Awardees funded from August 2024 to November 2025. One winner will be selected in February 2026. A Logic Model was developed for the LPoD retrospectively, see Appendix A.

## 1.3 About the process evaluation

This process evaluation focuses on the initial entry and Discovery Awards only, utilising a mixed methods approach to explore the processes and implementation of the LPoD. Fieldwork was completed in early February 2024. Since completion, Challenge Works have addressed some of the areas of improvement and recommendations highlighted in this report.

Figure 1 outlines the research questions for this evaluation and the section of this report that addresses that question.

*Figure 1: Process evaluation research questions*

Research question	Section
Governance	
How has the governance (i.e., the Longitude Committee, the Prize programme board, the Judging Panel and Prize awarding) affected the delivery of the Prize so far?	Section 2.4 & 3.2.4

Research question	Section
Delivery of the LPoD and ways of working	
How effectively has the Challenge Prize been delivered and was it delivered as intended? Which factors have acted as facilitators or barriers to delivery of the LPoD?	Section 3
What are the views of the innovators, and other key stakeholders involved, on what is working more or less well regarding the delivery of the LPoD?	Section 3
To what extent did the timing and support provided in the different phases of the Prize affect individuals' overall experience of the programme?	Section 3.2.1; 3.5 & 3.6
What resources and support are helping the innovators to meet their objectives and what is missing? What types of support do innovators consider most useful, and how does this relate to the cost of that support?	Section 3.4 & 3.5
How are the interactions between the innovator teams and other stakeholder groups changing/influencing the proposed solutions addressing the problem? <ul style="list-style-type: none"> <li>In particular, to what extent, and how, has the co-design of solutions with people affected by dementia changed and/or de-risked the innovation process?</li> </ul>	Section 3.5
Outcomes	
Does the Challenge Prize provide a sufficient incentive for innovators – particularly those new to the problem area – to enter the assistive technology and dementia sector? <ul style="list-style-type: none"> <li>What types of innovators and organisations have applied to the Longitude Prize on Dementia? Are they new to the field of dementia or have they worked in this space before?</li> <li>What motivated innovators and organisations to apply to the Challenge Prize?</li> <li>Are Prizes considered to be accessible and with low barriers to entry?</li> </ul>	Section 3.2.2 & 4.2
To what extent does the Prize, including the support and resource provided by the Prize, enable innovators to develop their solutions more quickly and to a higher quality than they might have achieved without the Prize?	Section 4.2
Lessons for future Prizes	
What potential lessons are there for future Challenge Prizes? <ul style="list-style-type: none"> <li>Are there any lessons on the criteria that support an effective Challenge Prize and the role of similar funding mechanisms in the future?</li> </ul>	Section 5

Research question	Section
What questions might further evaluation of the LPoD aim to address?	Section 5

## 1.4 Methods

This section outlines the data collection and analysis methods for the process evaluation.

### 1.4.1 Data collection

A mixed methods approach was taken to data collection, including fieldwork and analysis undertaken at two time points to provide interim and summative findings during the Discovery Awards Phase. This involved:

- document review, including delivery plans and monitoring data;
- an online survey of innovators who applied to the LPoD;
- interviews with 20 of the 24 Awardees<sup>2</sup>;
- interviews 10 key stakeholders.

#### *Document review*

Documentation from the LPoD were reviewed in September/October 2023, to inform the interim report, and January/February 2024 to further inform the final report. Documents included:

- delivery plans for the LPoD;
- key documentation developed for the LPoD by Challenge works, such as the Innovator Handbook;
- documentation detailing involvement of the Lived Experience Advisory Panel (LEAP);
- monitoring documentation, such as Programme Board meeting minutes and Awardee monitoring reports.

For a full list of the documents reviewed, see Appendix B – Documentation reviewed.

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<sup>2</sup> Awardees were interviewed on a first-come-first-serve basis, but priority was given to ensure those who did not take part in the survey were consulted. Resources were available for 30 interviews, including interviews with 10 stakeholders to gain insight into the design and delivery of the LPoD.

### *Online survey of applicants*

A survey to capture experiences of the LPoD application process was developed and agreed with Innovate UK, Alzheimer's Society and Challenge Works. Feedback on the survey was also provided by members of the LEAP. A mix of multiple choice, rating and open questions were used, which allowed respondents to give additional details if they wished.

In August 2023, applicants (n=163) were invited by Cordis Bright to take part in the online survey, which was administered via SmartSurvey.<sup>3</sup> This was approximately two months after the Discovery Awardees were publicly announced. A Word version of the survey was also attached to the email invitation to enable applicants to preview questions and complete this version if preferred.

The survey remained open for five weeks and three email reminders were sent to non-responders. Awardees were also encouraged to take part by Challenge Works. Applicants were able to exit and return to the survey if they wished.

47(29%) teams completed the survey, including seven with substantial missing data (who did not provide demographic details). The survey sample includes 21 of the 24 Awardees and 26 unsuccessful applicants. For a full analysis, see Appendix C – Applicant survey analysis.

### *Consultation with Awardees*

To ensure that the evidence-base contains detailed and in-depth perspectives of those directly involved in the programme, interviews were conducted with 20 of the 24 Discovery Awardees. All Awardees were invited to participate in an interview, however they were arranged on a first come first serve basis and priority given to those who had not completed the survey.

Interviews took place online via Teams/Zoom (one was conducted by phone) in January 2023, lasting around 45 to 60 minutes each. A semi-structured topic guide was developed and agreed with Innovate UK, Alzheimer's Society and Challenge Works. This focused on Awardee's experiences with the LPoD from application up to their current experiences with the NFS and preparations for the next round of applications for the LPoD.

### *Consultation with stakeholders*

Ten interviews were conducted with stakeholders with knowledge of the design, administration and delivery of the LPoD. A purposive sampling approach was taken to ensure a range of views were included from Innovate UK, Alzheimer's Society, Challenge Works, the LEAP and other delivery partners.

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<sup>3</sup> 175 applications were submitted, of which 12 were found to be out of scope and excluded due to being duplicate applications or deemed to be completely out of scope i.e. not relevant ideas.

Interviews took place online via Teams/Zoom and were approximately 45 to 60 minutes in length. A topic guide was developed and agreed with Innovate UK, Alzheimer's Society and Challenge Works, and interviews were adapted to ask the most relevant questions of each stakeholder according to their role in the LPoD. Interviews covered inputs, activities, governance, and outcomes of the LPoD.

#### 1.4.2 Analysis

The data were analysed as follows:

- **Quantitative data analysis.** Data collected via the applicant survey was descriptively analysed in Excel. Open text responses were analysed thematically.
- **Qualitative data analysis.** The qualitative evidence captured through interviews with Awardees and stakeholders was recorded in a matrix, which mapped responses against key evaluation questions. The data were analysed thematically by a designated team member who identified key themes, commonalities, and divergences in responses.

This is an iterative process, using initial data collected to establish themes, and using these themes to continue to examine further data. In effect this allows for constant comparison of the themes and ensures that any theories or judgements are closely linked to the data that they are developed from. This was then scrutinised, challenged and reviewed by the wider research team (all of whom have access to the original data).

- **Triangulation.** We used both the quantitative and qualitative data to answer the research questions, rather than presenting the different data sources in 'silos'. We prioritised data with high relevance and high consistency of view. In instances where we collected data with high relevance but low consistency of view, we have focused on trying to unpick why this range of opinion exists. Where data has high consistency of view but low relevance to the research question, we have examined this further as this may indicate domains of unintended or unanticipated consequences (positive and negative). We have avoided presenting evidence which has low relevance to the research questions and low consistency of view. Findings were sense-checked through discussions within the research team to make decisions on how to present the information collected.

#### 1.5 Structure of the report

The report is structured as follows:

- Section 2 – About the Longitude Prize on Dementia: Key information about the LPoD rationale, inputs, governance and external communication.
- Section 3 – Longitude Prize on Dementia processes: Discussion of findings on the delivery of the Prize including the Discovery Awards application and

selection process, initial entry, financial and non-financial support and monitoring activities.

- Section 4 – Outcomes of the initial entry and Discovery Awards: Discussion of the outcomes of the Discovery Awards based on Awardees and stakeholders' reflections.
- Section 5 – Discussion and recommendations: Discussion of the key findings from the process evaluation and subsequent recommendations for the continued delivery of the LPoD and/or future similar investments.

## 2 About the Longitude Prize on Dementia

### 2.1 Overview

This chapter includes key information about the LPoD including the background to the Prize, its aims, inputs and governance. Stakeholder, and where relevant Awardee, feedback is provided on these elements where appropriate.

#### Key messages

- The LPoD is a Challenge Prize that aims to advance the development of technology solutions to help people living with dementia maintain independence and have a better quality of life.
- Awardees received £80,000 and are provided with NFS to develop their solutions, with a strong emphasis on co-design.
- The overall Governance of the LPoD has been working well but stakeholders noted that the three key partners, Innovate UK, Alzheimer's Society and Challenge Works, have some differing expectations and approaches on how the Prize should be delivered and monitored. This has led to some additional work in the Prize delivery/administration that was not originally factored in, particularly around the amount of reporting and the degree of transparency required around the delivery plans and how money is being spent.
- External communications, supported by Seven Consultancy, during the Discovery Awards has focused on the launch and promoting Awardee teams and their work. Agreeing a clear strategy and approach to communications between funding organisations would provide clarity regarding purpose and objectives.

### 2.2 Background and Rationale for the Longitude Prize on Dementia

#### 2.2.1 Background to the Prize

The LPoD aims to drive the creation of personalised, technology-based tools that are co-created with people living with the early stages of dementia and help them to live independently for longer. People living with dementia will be the primary users of the technology-based tools.

The Prize, which is worth £7.73 million including over £4.42 million in seed funding and grants, is funded by:

1. **Alzheimer's Society**, a leading UK dementia charity which supports people affected by dementia to live fulfilled lives.



2. **Innovate UK**, which aims to drive productivity and economic growth through supporting businesses to develop, and connects business to partners, customers and investors.
3. **The Medical Research Council (MRC)**, which funds research to prevent illness, develop therapies and improve human health.

The Prize is delivered by **Challenge Works**, a social enterprise founded by Nesta. Challenge Works partners with organisations, charities and governments worldwide to discover entrepreneurs and innovations which address identified contemporary challenges.

### 2.2.2 Rationale for the Prize

Dementia has been identified as a condition that can result in multiple challenges for those affected. Prevalence of dementia worldwide is set to triple to 153 million by 2050.<sup>4</sup> Most people living with dementia want to remain living in their own homes for as long as possible, avoiding unnecessary hospital and/or care home admissions.<sup>5</sup>

Dementia is a progressive condition without a cure, but one with which people can 'live well' for years. There is a growing market in personalised technology advances, which are increasingly being targeted as a way to maintain independence and 'live well' with dementia.

It has been argued that existing markets for dementia care are not reaching the optimal level of incentive for innovation, and there is a gap in the provision of truly user-centred, adaptive technologies (see Appendix A – Logic Model for the LPoD). Combined, these indicate that there is untapped capacity for innovation and the needs experienced by people living with dementia are not being adequately met.

The LPoD aims to incentivise teams to create technologies which use artificial intelligence (AI) and machine learning combined with user data and testing to provide personalised support for people living with dementia. As stated in the LPoD Innovator Handbook:

*“The Longitude Prize on Dementia will be awarded to the creator of a breakthrough technology that learns from a person living with dementia, adapting and compensating for their condition as it progresses, and enabling them to continue living independently for longer. The winning solution will be a digital device or service designed for use by people living with dementia as the primary users. It must be able to demonstrate a transformational improvement in the*

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<sup>4</sup> GBD 2019 Dementia Forecasting Collaborators (2022). Estimation of the global prevalence of dementia in 2019 and forecasted prevalence in 2050: an analysis for the Global Burden of Disease Study 2019. The Lancet. Public health, 7(2), e105–e125. [https://doi.org/10.1016/S2468-2667\(21\)00249-8](https://doi.org/10.1016/S2468-2667(21)00249-8)

<sup>5</sup> Alzheimer's Society (2016). Fix Dementia Care: Homecare; London, UK. Available at: [https://www.alzheimers.org.uk/sites/default/files/migrate/downloads/fix\\_dementia\\_care\\_homecare\\_report.pdf](https://www.alzheimers.org.uk/sites/default/files/migrate/downloads/fix_dementia_care_homecare_report.pdf)

*lives of users, helping them to retain independence in one or more of the areas that contributes to their wellbeing and quality of life, including: essential activities of daily living, communication and social interactions; and other activities that enable them to lead a fulfilling life doing things they enjoy.”*

Tied to its aim to incentivise innovation, the LPoD also seeks to:

- Support new partnerships and knowledge sharing between innovators and key stakeholders.
- Facilitate co-design of solutions with people affected by dementia.
- Raise wider awareness and support of the issue, contributing to new standards of user-testing and new market opportunities.

## 2.3 The Longitude Prize on Dementia Inputs

The logic model for the LPoD (Appendix A – Logic Model for the LPoD) indicates that the LPoD’s key inputs are: 1) financial, 2) time and 3) knowledge and expertise.

1. **Financial input:** the Alzheimer’s Society, Innovate UK and the MRC have contributed £3.55 million, £3.68 million and £500,000 respectively to the Prize, totalling £7.73 million. Over half of this total is allocated to Awardees in seed funding and grants, as shown in Figure 2. The remaining funds have been allocated to the administration and delivery of the LPoD.

Figure 2: Breakdown of Prize fund

Phase	Number of Awardees	Prize pot
Discovery Awards	24	£80,000 each
Finalist Awards	5	£300,000 each
Winner	1	£1 million
<b>Total prize fund available for Awardees</b>		<b>£4.42 million</b>

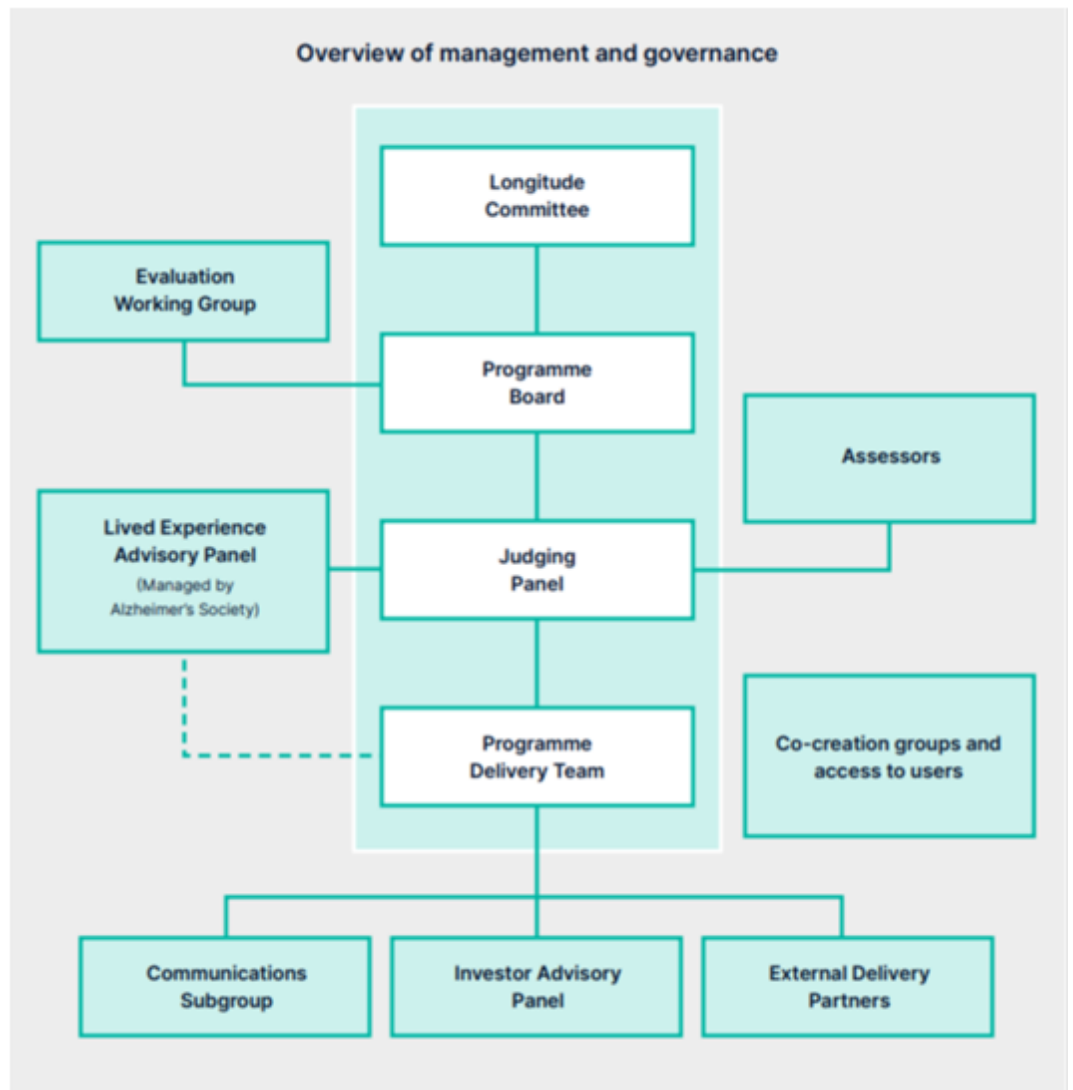
2. **Time input:** the LPoD requires time contribution primarily from Challenge Works, which is responsible for Prize design and core delivery tasks including assessment of applications, disbursement and monitoring of funds, engagement and communications, and validation of solution effectiveness. Assessors and judges also contribute their time to the Prize.
3. **Knowledge and expertise:** brought to the LPoD by the partnership between funders, complimented by external organisations expertise in co-design and technology innovation.

## 2.4 Governance of the Longitude Prize on Dementia

This section outlines the governance of the LPoD and reports the reflections of stakeholders on how well the governance has worked and affected the delivery of the Prize. Figure 3 provides an overview of the governance of the LPoD.

Stakeholders reported that overall, the Prize's governance was strong, but not without challenges, most of which stemmed from the difficulty to integrate Innovate UK into the structure at a late stage, which limited the opportunities for partners to agree mutual expectations. This resulted in additional time being required to manage the programme governance over the course of the programme.

Figure 3: Overview of the governance of the LPoD<sup>6</sup>



Innovate UK joined the partnership for this Prize just prior to launch, with a lot of the discussions about the Prize and its governance held between the original partners, Alzheimer’s Society and Challenge Works since 2021. Contracting between the organisations took a long time, approximately one year, therefore impacting the time available to incorporate Innovate UK’s approach into the planning of the Prize:

*“...they came onto it so late that they didn’t get to shape it at all. And I think it means that the Prize delivery team on the Challenge Works side are spending sometimes quite a lot of time kind of retrofitting*

<sup>6</sup> Taken from: Longitude Prize on Dementia, Programme Board Terms of Reference, December 2022.

*things to fit what Innovate (UK) needed in the first place. Rather than being able to focus kind of solely on the delivery of the Prize’.*

Stakeholder

As a result of this, agreeing expectations of the funding and non-negotiables between the partners has played out during the Prize rather than before the launch:

*“...red lines need agreeing as early as possible’.*

Stakeholder

The governance of this prize has taken relatively a lot more of senior leaderships’ time across partners in comparison to other, much larger funding streams, for instance, the Healthy Aging Challenge (a total of £98million in comparison to approximately £3million here).

Overall, most stakeholders and Awardees felt that the LPoD has been delivered well by Challenge Works. The roles and responsibilities of the various partners were mostly clear and well understood and there is a sense of achievement that three large organisations have been able to come together to actualise this Prize. There is also recognition from each of the partners about the strengths they individually bring to the partnership:

*“...the prize is in a better position due to the AS co-funding, in terms of the expertise they bring’.*

Stakeholder

*“...we are benefiting from their (Innovate UK) experience in this space in terms of running large programmes every year with focus on aging...So we benefit from that rigor both in challenging the way in which things are running but also everything from, kind of, the criteria to helping us determine some of what was fair in each case for judges’*

Stakeholder

Despite that, there were some differences in expectations and approach between Innovate UK, Alzheimer’s Society and Challenge Works during the process, specifically regarding monitoring and reporting, further details of which are provided in Section 2.4.2.

#### 2.4.1 Longitude Committee

The Longitude Committee is a group of 14 experts in a range of areas within public policy, academic research, and business development who provide consultation on the LPoD. The Committee has assisted with decisions such as who was included in the Judging Panel, and will have key involvement in deciding which team will win the LPoD.

#### 2.4.2 Programme Board

The Programme Board comprises representatives from Innovate UK, Alzheimer's Society and Challenge Works who have responsibility for the oversight and governance of the LPoD. This has included signing off governance decisions, appointing Judging Panel members, and providing strategic direction to the delivery team.

Programme Board meetings are held once per quarter in line with the Awardees' Quarterly Review submissions. These meetings provide an opportunity to update Prize partners on the progress of delivery and discuss any challenges and next steps. Partners also receive weekly updates from Challenge Works and the Board communicate via email as needed between these quarterly meetings.

Overall, stakeholders felt the Programme Board meetings have provided space for the partners to come together to be updated, express concerns, make requests, and problem-solve. However, difficulties have sometimes arisen due to partners' differing expectations and approaches, an example of such is regarding monitoring and allocation of the financial support. Innovate UK's approach has been described as more detailed and rigorous, which, whilst beneficial, has meant that additional time and resource has been needed to monitor and report where and how money is being spent, impacting delivery. Stakeholders reflected that because Innovate UK receive funds through taxpayer money, they perhaps have greater accountability and need for transparency around how decisions are made and how money is spent than other partners, which can result in greater 'risk aversion'.

Further details around views on the monitoring processes of the LPoD are provided in Section 3.7.

#### 2.4.3 The Judging Panel

The Judging Panel was recruited based on a scoping phase which sought to identify experts in dementia care and research, co-design, technology and AI. Gender and geographical balance were considered when finalising the Judging Panel, which was then reviewed and approved by the Longitude Committee and Programme Board.

The Judging panel assisted in the initial selection of Discovery Awardees and will go on to support the selection of the five Finalists. Members have worked with Challenge Works in different ways during the LPoD, including consulting on NFS activity planning during the Discovery Phase, and supporting Challenge Works in planning for external events, such as the Alzheimer's Disease International Conference in April 2024.

Stakeholders believe the Judging Panel worked reasonably well. Further exploration of the judging process is detailed in Section 3.2.4. The Panel was described as diverse by stakeholders in terms of expertise and international inclusion; however, some stakeholders also felt it may have benefited from additional judges with academic backgrounds and further expertise in dementia care in order to ensure each application is reviewed by an expert in the field and

to champion the importance of applicants evidencing claims about their technology solutions.

*“I think you need people on the panel who know about dementia and know about research and know about evidence and that sort of thing.”*

Stakeholder

#### 2.4.4 Programme delivery team

The LPoD is delivered by Challenge Works, who are responsible for risk management and mitigation, escalating issues to Innovate UK and Alzheimer’s Society as required, as well as the external management, reporting, coordination and implementation of the Prize. Weekly progress updates are sent to partners and the LEAP to keep everyone updated.

Challenge Works has collaborated with a range of other organisations to deliver the LPoD NFS, including CABHI, Social Tech Trust (STT), and Amazon Web Services (AWS).

Some stakeholders reflected that greater communication and collaboration between the wider group of funding and delivery partners could have aided effective delivery of the LPoD, particularly the NFS.

Whilst stakeholders acknowledged that there were different expectations among the partners, it was commented that Challenge Works had worked hard to understand this and accommodate changes to their ways of working.

*“There’s a really great openness from Challenge Works to learn and to understand each of the partners, and their policies and procedures, and as best they can try and ensure that they meet them.”*

Stakeholder

#### 2.4.5 Lived Experience Advisory Panel (LEAP)

The LEAP is a group of 12 individuals including five who have some form of dementia themselves, five who have experience of caring for someone living with dementia and two advocates. The panel are managed by the Alzheimer’s Society and are involved in the Prize in a range of ways to provide the perspective of people with lived experience in the progress of the Prize including reviewing applications. Further details of their role and reflections on this are provided in Section 3.2.4.

Overall, it has been reflected that the involvement of the LEAP has been valuable for helping to ensure that the views of people affected by dementia impact the LPoD.

## 2.5 External Communication

External communications support for the Prize has been provided by Seven Consultancy. Documentation indicates that the key communication objectives for the Discovery phase have been to:

- build credibility within the dementia and technology space;
- show impact in action;
- give exposure to innovators;
- promote co-design as an essential success criteria.

Initial plans were set out prior to the launch of the Prize and further developed through planning meetings between Challenge Works, Innovate UK and Alzheimer's Society. External communications through various media outlets has aimed to promote the Prize and Awardees taking part in the LPoD, and link in with other related organisations and activities taking place in the field of dementia care. In particular, external communications in year two of the LPoD has revolved around the announcement of the Discovery Awardees in June 2023 and profiling Awardees. For example, Seven Consultancy report that there have been 92 posts about the LPoD on social media channels such as Instagram, Facebook and Twitter.

It was reported by stakeholders that there has been more coverage than is usual for a Prize:

*“...almost four times the amount of coverage than we'd normally have for a prize like this’.*

Stakeholder

While a few stakeholders reflected that this external communication has been beneficial, as it has increased visibility of the Prize without adding too much additional burden to internal comms teams, others felt unclear of the communication strategy and purpose of this additional exposure at this stage of the process. Greater clarity and a shared agreement on an approach would have been beneficial to some Prize partners.



## 3 Longitude Prize on Dementia processes

### 3.1 Overview

This chapter outlines key information on the processes and activities of the LPoD, with Awardee and stakeholder feedback regarding what has been working well or less well.

#### Key messages

- Applicants who responded to the online survey reported an overall positive experience of the LPoD application process. The purpose and requirements of the Prize were clear to most applicants.
- The judging and selection process worked reasonably well, however more teams than initially agreed were taken into the Discovery Award phase which incurred an additional cost. This, and some discrepancies in judge's scoring, highlight a need for greater clarity around the remit of judges.
- A diverse group of innovators were taken through to the Discovery Awards. This has added to the complexity of providing appropriate and useful NFS. Geographical context and the level of development at the start of the awards may need to be factored into the assessment and decision making for the Finalist round.
- Input into the Prize from the LEAP and a strong ethos of co-design has been valuable for ensuring the views of people affected by dementia are included in decision making and the development of solutions. The recruitment of people living with dementia to test solutions has been a challenge for some Awardees without existing networks.
- The NFS is a key element of the LPoD that makes it stand out from some other types of funding. It has enabled Awardees to gain knowledge and insight, and in some instances, establish key connections with LPoD partners. Awardees would have benefited from greater clarity on the support available and earlier engagement of technology and data support.
- Quarterly reporting provided Awardees with an opportunity to reflect on progress and was not seen as overly burdensome. Partners had different needs and expectations in terms of the level of reporting.

### 3.2 Application and selection process

#### 3.2.1 Discovery Awards application process

Applicants were required to enter via an online application form hosted by Submittable. Entries opened on 26 September 2022 and closed on 26 January

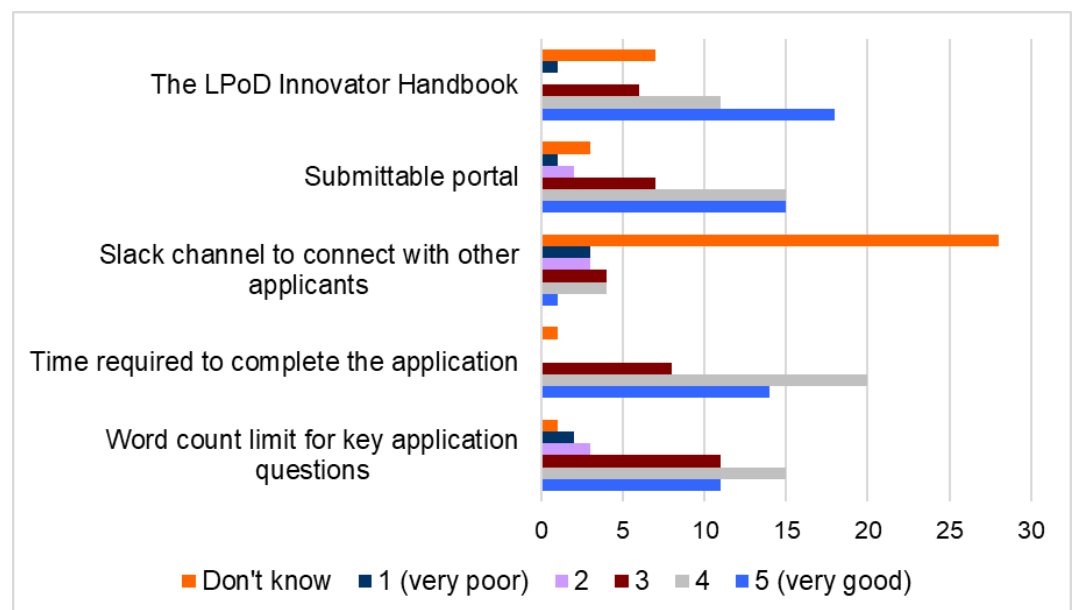
2023. A total of 175 entries were submitted, of which 163 were 'in scope' and progressed to the assessment stage.<sup>7</sup>

As part of the application form, applicants were asked to focus on the following areas of interest: innovation; insight; impact; adaptability; safety, security, and data ethics; usability and user experience; technological feasibility; interoperability; market potential and affordability; team capabilities.

When asked about their experiences of applying to the Prize, around 80% of survey respondents felt the purpose (38 of 46 respondents)<sup>8</sup> and requirements (39 of 47 respondents) of the LPoD were clear and most reported an overall positive experience of the LPoD application process (28 of 40 respondents).

In particular, the 'Submittable portal' (30 out of 40 respondents that rated this indicated it was very good/good) and 'time required to complete the application' (34 out of 42 respondents that rated this indicated it was very good/good) were highly rated. Figure 4 presents survey respondents ratings of different elements of the LPoD application.

Figure 4: On a scale of 1 to 5, where 1 is very poor and 5 is very good, how would you rate the following elements of the LPoD? (n=43)



This largely positive experience was also reflected in interviews, as Awardees found the application questions clear and directive with associated assessment criteria allowing them to effectively tailor and complete their application. The

<sup>7</sup> 12 applications were excluded due to being duplicate applications or because they were found to be completely out of scope i.e. not relevant ideas.

<sup>8</sup> Number of respondents varies by question due to missing data or individuals indicating 'Don't know' instead of providing a rating.

LPoD application was viewed as being less onerous in comparison to other funding applications that Awardees had previously completed (further details are provided in Section 4.3). Some suggested that a more interactive application format, such as pitch presentation or demonstration could have been an improved option for showcasing their solution. This suggestion has already been incorporated into the assessment process for the Finalist Awards.

During the application process applicants were provided with 'Hackathon' sessions, 'Ask us Anything sessions', and a Slack channel to connect with other applicants.

### *'Hackathon' sessions*

Two 'Hackathon' sessions were facilitated by Challenge Works online in November 2022, each lasting three hours. They aimed to help applicants better understand (1) dementia, and (2) how to enter and win the Prize. During these sessions, applicants were introduced to the Prize and connected with experts, funders of the Prize and people living with dementia, as well as other innovators from across the world. They had the opportunity to share ideas and expertise, and to ask questions related to the Prize and judging criteria.

Data from the applicant survey suggests that many (28 of 43 respondents) did not attend a 'Hackathon' session, the main reason for this was due to lack of knowledge about their occurrence (22 indicated they did not know about the sessions). However, all 15 respondents (including 10 Awardees) who did attend a session indicated that the timing was appropriate for informing their application but three indicated that the session was not helpful overall. (For further details, see Appendix C, Section 8.3.1).

### *'Ask us Anything' sessions*

Two 'Ask Us Anything' sessions were held online in December 2022 and January 2023, each lasting one hour. These sessions gave applicants the opportunity to ask questions about the Prize and the application process.

Similarly to the Hackathon sessions, 27 of the 42 applicants who responded to the survey indicated that they did not attend an 'Ask Us Anything' session, 20 respondents indicated that this was because they did not know about them. Of the 15 respondents who attend a session, 12 found the timing appropriate to inform their application and 11 found the session helpful. (For more information, please see Appendix C, Section 8.3.2).

The lack of awareness of 'Hackathon' and 'Ask Us Anything' sessions suggests that they may not have been promoted enough.

### *Slack channel*

The Slack channel has not been widely used by Awardees. Two thirds of survey respondents (see Figure 4) and several Awardees interviewed indicated they did not know about the Slack channel. A few Awardees reported already using Slack channels within their organisations and found it burdensome to use it for another

project too. Findings suggest that a Slack channel may not be an appropriate means by which to enable Awardees to connect, collaborate and discuss ideas.

### 3.2.2 Reach of the LPoD

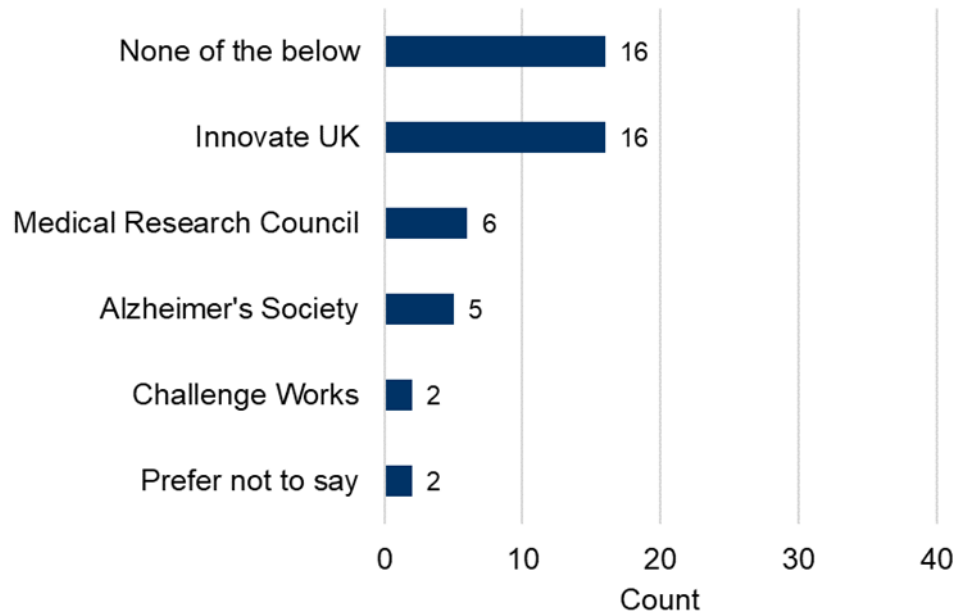
Stakeholders reflected that they were generally pleased with the number of applications received. Data collected by Challenge Works indicates that in scope applications were received from 26 countries, however a large proportion of these came from the UK (n=81/163) and the United States (n=27/163). Applications predominantly came from incorporated businesses (n=87/163) and academic institutes (n=27/163).

Data from the survey indicates that a large proportion of respondents were an incorporated business (22 of 40 respondents) of which most had just nine or fewer employees (20 of the 22 businesses). The self-reported primary expertise of respondents was predominantly technology (15 of 40 respondents), artificial intelligence/data science (10 respondents) or other/a combination of expertise (9 respondents) rather than dementia expertise including lived experience (four respondents). (See Appendix C, Figure 11.)

Furthermore, 32 out of 35 survey respondents indicated their team had received funding in the last three years to support any innovation activities. As shown in Figure 5, 16 survey respondents indicated they had not previously applied to one of the Prize partner organisations for funding. Of these 16, 12 indicated their organisations head office was based outside of the UK, and therefore would not usually be eligible to apply for funding from Innovate UK or the Medical Research Council.

These findings suggests that whilst several applicants had previous experience with applying for and receiving funding, a proportion were new to these funders and to the field of dementia care. These findings should be interpreted with caution due to the small sample size, particularly of unsuccessful applicants.

Figure 5: Have you or your team previously applied for funding from the following organisations? (Please select all that apply) (n=39)



### 3.2.3 Judging criteria

The following criteria have been used to judge applications (see Appendix D – Judging criteria for full details):

- Breakthrough innovation that helps people with dementia live independently for longer.
- Adapting to user (users are defined as people living with dementia or caring for a person with dementia) needs to deliver tailored support, contributing to wellbeing and quality of life.
- High standards of technical excellence.
- Credible path to sustainability and scale.

Stakeholders reflected that the judging criteria were clear, but also identified some discrepancies in how they were applied during the Judging Panel's assessment of applications, discussed further in Section 3.2.4. It is unclear the extent to which context, such as geographical location and how developed solution already were (or whether it was a new idea), was taken into account when applying the judging criteria at application. There is a need for greater clarity around the extent to which this context should be taken into account in the next round of assessments for the Finalist Awards, particularly as the current cohort of Awardees is so diverse.

*“One thing that’s difficult, particularly at the early stage, I think it’ll be easier at the next stage is it’s really hard to judge what was already happening and dressing up as something new and what was stimulated by the LPoD.”*

Stakeholder

### 3.2.4 Selection process for Discovery Awards

Discovery Awardees were selected through a multi-stage process which involved an initial assessment of in-scope applications, a moderation process by the Programme Board to create a shortlist and, lastly, the shortlisted applications were reviewed by a judging panel to select approximately 23 Awardees.

#### *Initial assessment process*

Thirty-five external assessors were recruited from across the world through the LPoD network. They held knowledge and expertise in current dementia research and policy, as well as the innovation landscape, the use of Artificial Intelligence (AI) and machine-learning, product design and healthcare commercialisation. Assessors submitted CV’s and Challenge Works endeavoured to split expertise across applications. Challenge Works delivered two training sessions on how to use Submittable and provided scoring guidance to assessors. Each entry was then reviewed and scored by three assessors over a two-week period.

From late January to early February 2023, each assessor scored entries from one to five against each of the criteria outlined above and made a recommendation (yes, no or maybe) as to whether the entry should proceed to the Discovery Award phase. Each assessor reviewed between 13 to 20 applications each.

A moderation meeting with the Programme Board, attended by senior colleagues from Innovate UK, the Alzheimer’s Society and Challenges Works, took place in February 2023. The Board shortlisted 47 applications to be reviewed by the Judging Panel.

#### *Judging process*

The shortlisted entries were reviewed and scored by the Judging Panel of ten judges with expertise spanning the clinical and social care landscape (specifically in dementia), co-design, and technology.

Each entry was also reviewed by two members of the LEAP, one living with dementia and one family carer. They scored applications on (1) transformational technology, (2) empowerment and (3) whether the product warranted investment, and then had two meetings to discuss the entries prior to the Judging Panel.

The Judging Panel met in March 2023 and was attended by members of the Judging Panel, the Chair of the LEAP, the Alzheimer’s Society and Challenge Works. Following the judging, it was noted that some Panel members scored all applications they reviewed highly. This led to some concerns over how this may

have impacted the overall scoring. On reflection, improved guidance to ensure consistency of approach to assessment and scoring would improve this process. However, Challenge Works also report normalising scores to help account for any systematic differences in judging, so if some judges score consistently higher than others this is taken into account.

While the LEAP had an advisory role in the Judging Panel meeting and not a voting role, the inclusion of the LEAP's views in this discussion was seen as valuable by stakeholders. The process of reviewing applications, gathering views and relaying these to the Judging Panel was reported to have worked well and was not overly burdensome.

*"I thought that process was exemplary because we mostly aligned with our recommendations and where we didn't there was good debate and sometimes the professional judges embraced our recommendations and sometimes they didn't. But I felt what came out of it was a very positive representation of the 24 semi-finalists that should go forward."*

Stakeholder

The aim of the Panel was to select 23 teams who would proceed into the Discovery Awards and judges aimed to include a range of solutions. During this meeting the judges suggested that two teams form a partnership, however this was rejected by the Board as there was a need to score and select applicants based on their individual merits. There was also a lack of clarity around the order of preference of selected applications. This resulted in 24 rather than 23 teams being shortlisted for the Discovery Awards. Whilst this was viewed positively by a few stakeholders, as it presented an additional opportunity to progress the development of a solution, it posed an issue because additional funding needed to be found for the 24<sup>th</sup> team. Stakeholders highlighted a need for greater clarity and guidance around the remit of the judging panel and transparency on how decisions were made. Since completion of fieldwork, Challenge Works have provided Judging Panel members with an Innovator Judging Guide in preparation for the next round of applications and assessment in May 2024.

### 3.2.5 Quality of innovative technology solutions

Stakeholders varied in their perceptions of how successful the Prize was at attracting innovative technology solutions. Some indicated disappointment in the range of innovative ideas in the applications received, and there were concerns that some solutions chosen for the Discovery Awards were not close enough to the ambition of 'breakthrough technology'.

However, it was also highlighted that, due to the lack of existing technology designed specifically for and with the input of those affected by dementia, there is the potential for more simplistic innovations to have a bigger impact than they would in other fields. Instead, the focus should be on whether these solutions will improve the lives of people affected by dementia. Stakeholders tended to agree that the LPoD had attracted some strong contenders and would result in the



development of useful new technology, regardless of whether that be considered 'breakthrough'.

*"I'd argue that there's a lower barrier in dementia and this Prize is maximising the possibility of that breakthrough happening."*

Stakeholder

The lack of consensus on whether solutions meet the criteria of 'breakthrough innovation' suggests that the definition may need defining further.

It is also possible that the initial amount of funding offered for the Discovery Awards was too little to attract really innovative and breakthrough technology, which may be especially expensive to develop. As discussed in Section 3.4, several Awardees reflected that while the funding had enabled them to progress the development of their solution it is a relatively low amount in this sector.

### 3.2.6 Discovery Awardees

The channels through which Awardees found out about the LPoD varied depending on their existing network. Many Awardees were made aware of the LPoD through a colleague in their institution/organisation, or another person working in the dementia field. Others found out through media such as LinkedIn.

Figure 6 provides some key characteristics of the Discovery Award teams. The majority of Awardees are based in Europe (n=16, 67%) and specifically the UK (n=14, 58%) and the most common solution type is wearable technology (n=6, 25%) and lighting solutions (n=3, 13%). A full list of Awardees is available here <https://dementia.longitudeprize.org/discovery-award-winners-semi-finalists/>

Survey data collected from 21 of the 24 Awardees indicates that most were incorporated businesses (n=13, 62%) or an academic institute (n=5, 24%)<sup>9</sup> and about half (n=11) were smaller organisations of nine or fewer employees. Awardee survey responders mostly reported that their area of expertise was technology (n=7, 33%) and AI/data science (n=5, 24%) and they had spent less than one year (n=12, 60%) or one to two years (n=7, 35%) working on their solution prior to application. For further detail of Awardee survey responders see Appendix C, Section 8.2.

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<sup>9</sup> This is self-reported information provided by the Awardees. Three Awardees did not complete the survey and one indicated a partnership.



Figure 6: Discovery Awardee location and solution type<sup>10</sup>

	Awardee (n=24)
<b>Location</b>	
Europe	16 (67%; including 14 from UK)
North America	5 (21%)
South America	1 (4%)
Middle East	1 (4%)
Oceania	1 (4%)
<b>Solution type</b>	
Wearable	6 (25%)
Lighting	3 (13%)
Virtual companion	2 (8%)
Virtual assistant	2 (8%)
Monitoring	2 (8%)
Falls	1 (4%)
Wayfinding	1 (4%)
Reminiscence	1 (4%)
Hearing	1 (4%)
Assessment	1 (4%)
Virtual reality	1 (4%)
Reminders	1 (4%)
Speech	1 (4%)
Entertainment	1 (4%)

### 3.3 Discovery Award initial entry

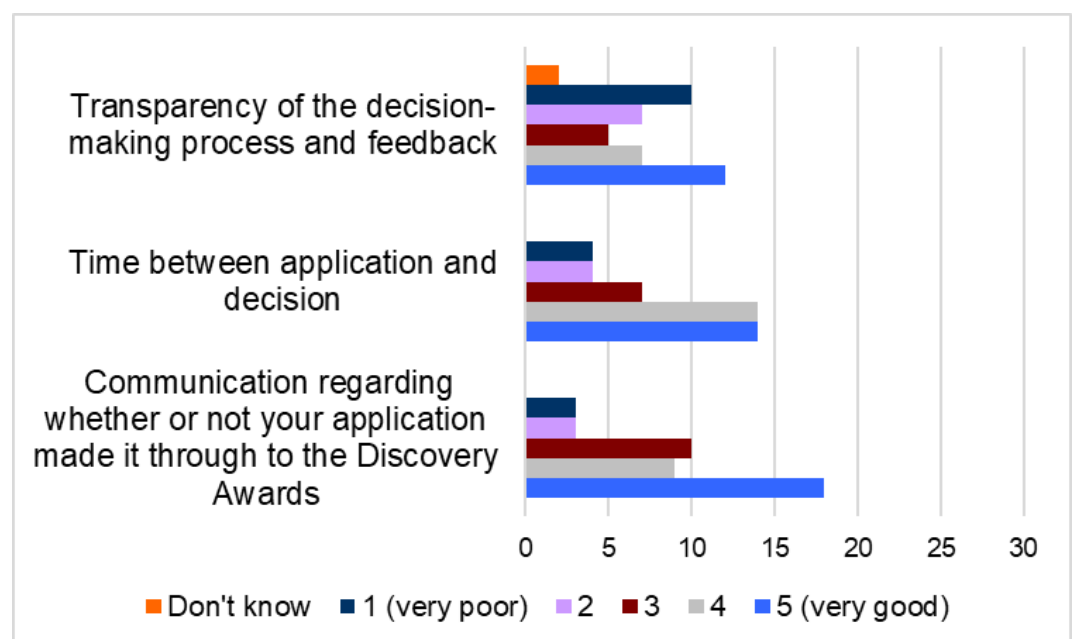
Applicants were informed if they were successful in May 2023 and invited to an onboarding/launch event on 1<sup>st</sup> June, at which point due diligence was underway. The Discovery Awardees were announced publicly on 20<sup>th</sup> June 2023.

<sup>10</sup> Information taken from LPoD Dashboard.

Data from the applicant survey shown in Figure 7 indicates that a substantial proportion of respondents rated the ‘transparency of the decision making process and feedback’ poorly (17 out of 43 respondents). Of the 17 respondents who rated feedback as poor, 15 of them were unsuccessful applicants, suggesting that unsuccessful candidates did not have a positive experience at the end of the application process. This is important because we might assume that it would influence their likelihood to put themselves forward for future bids, if they were not successful and not clear why. Open text responses indicated that a few applicants were dissatisfied with the amount of feedback received on their application and the length of time it took to receive feedback.

Figure 7 also indicates the ‘time between application and decision’ and communication of the outcome were generally rated positively or neutral. See Appendix C, Section 8.5 for further information around communication within the LPoD application stage.

Figure 7: On a scale of 1 to 5, where 1 is very poor and 5 is very good, how would you rate the following elements of the Longitude Prize on Dementia? (n=43)



### 3.3.1 Due diligence processes

Once the 24 teams were selected, information gathering for due diligence was carried out by Challenge Works using a global platform (LexisNexis). There were some initial concerns about the lack of information available for some teams (fledgling businesses or based in countries with minimal available information), but the process was expanded, and additional information was obtained. One team failed due diligence and so a reserve was taken forward instead.

Most Awardees described the due diligence process as being smooth and without any issues. Some acknowledged that this was, in part, because their organisation has another department that dealt with this whilst others were

smaller organisations that had more direct involvement. A few, however, came up against issues. This was particularly the case for Awardees based outside of the UK. For example, contracting issues regarding transfer of funds and the need to provide certain documents or documents in English when these are not readily available for teams working in non-English speaking countries.

Documentation indicates that whilst one month had been allocated to due diligence, it took closer to two months. This resulted in some contracting delays which meant that a few teams had a slightly later start. For example, as the Prize had an international reach, it was the first time that some Awardees were receiving funds from the UK and due diligence sometimes took slightly longer. A longer lead in time and/or resources to resolve due diligence issues may have been beneficial for ensuring that all Awardees were in an equal position and had a full year to develop their solution.

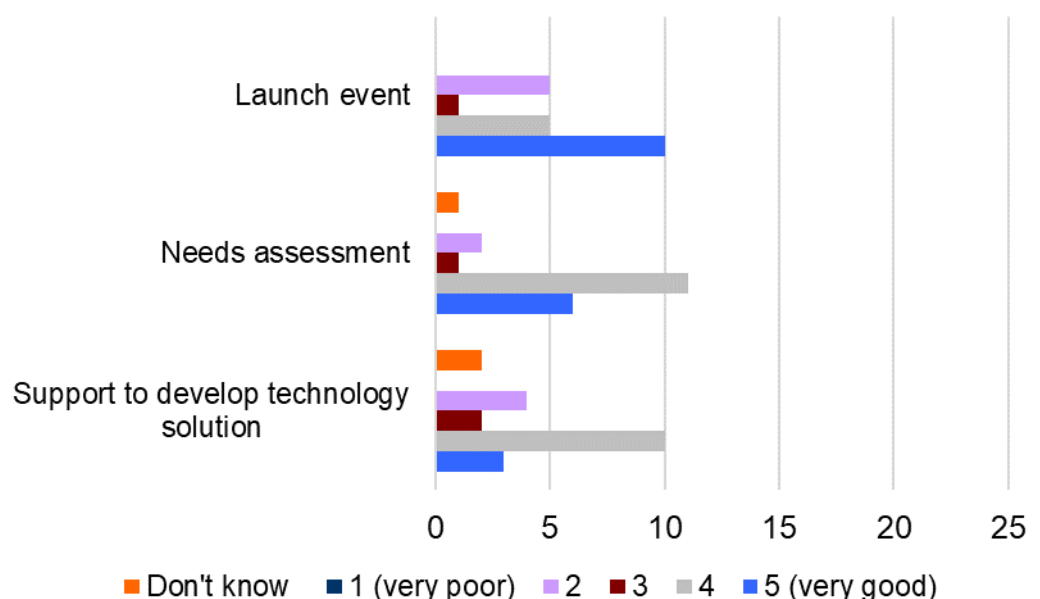
*It [due diligence and contract agreement] took slightly longer than expected. Maybe because it was the first time dealing with an [organisation] in this region.*

Awardee

### 3.3.2 Onboarding processes

One of the main activities of the onboarding process was the launch/onboarding event. Awardees gave mixed responses on their experience with this event, as seen in survey responses in Figure 8, around a quarter of Awardees who responded to the survey rated the event as poor or neutral.

Figure 8: On a scale of 1 to 5, where 1 is very poor and 5 is very good, how would you rate the following elements of the LPoD? (n=21)



In interviews with Awardees, the launch/onboarding event was often seen positively, as an opportunity to meet other Awardees and be introduced into the LPoD. Several Awardees also found the workshop on appropriate language and communication with people with lived experience of dementia very helpful, although this did not provide new information for those already working in the field.

Overall, however, some felt that greater clarity could have been provided at the event on the plans and timelines for the Discovery Phase. Awardees would have liked more information on the structure and content of the non-financial support, as this would have allowed them to plan around it. Some smaller teams with less capacity highlighted that they sometimes missed emails or information on events but would have kept an eye out on developments if they had known from the beginning of the Award.

*“I would have liked more on their timeline on what to expect in the longer term, even if not set in stone yet, a brief intro of everything would have been helpful.”*

Awardee

Some Awardees would have liked more coverage of their success at becoming a Discovery Awardee on the LPoD, as greater publicity would help to give their work greater legitimacy and enable them to grow and expand their reach in the dementia field. They would also have liked to find out more about other Awardees and have opportunity to collaborate and discuss related ideas, however others viewed the LPoD as a competition and did not want this. We appreciate that the Slack channel was created for just such a purpose but as mentioned in Section 3.2.1, over two-thirds of teams were unaware of this platform.

The launch of the LPoD coincided with university summer holidays which led to issues for at least one team who wanted to recruit PhD students to their teams and were unable to recruit in time. With many students being on leave, this led to delays for some teams/adversely impacted some teams in comparison to others. Whilst we appreciate there may not be a solution to this, it may be something to be mindful of for future Prize timelines.

### 3.3.3 Needs assessment

There were two needs assessments conducted during the Discovery Phase. The first needs assessment was conducted in June 2023 by Challenge Works to identify areas of support that different teams would need. This was used to help plan non-financial support. A second needs assessment was conducted by STT in December 2023/January 2024 to establish how best to support Awardees to develop their technology for the remainder of the Discovery Award period.

The needs assessments were rated well by survey respondents (shown in Figure 8) and Awardees found them comprehensive, covering a range of areas, as well as providing an opportunity to elaborate on specific needs where necessary. There were some concerns expressed by Awardees that, due to the competitive nature of the Prize, these needs assessments would be used to assess and

judge them, and could lead to bias against their solution later down the line if skills gaps were identified. Some Awardees stated that they would have liked to have follow-up conversations after submitting their needs assessments, and suggested having a designated contact to ask questions and discuss progress and challenges.

### **3.4 Financial support**

Awardees received £80,000 in financial support during the Discovery Awards of the LPoD, with £50,000 released upon signing a grant agreement in May 2023 and further £20,000 of funding in November 2023 after submission of Quarter 1 and 2 reports. The final instalment of £10,000 will be released to Awardees in May 2024.

The financial support has enabled Awardees to accelerate the development or widen the scope of their solution, which was highlighted as one of the main incentives for applying to the LPoD. It was noted that whilst the amount was not enough to fully develop and complete work on their solution, it had enabled some to start development and others to bring forward further development of an existing solution. The funds have been used in a variety of ways such as to recruit specialist staff or additional support staff, to purchase devices and other equipment and to remunerate user testing groups, incentivising participation in co-design.

For most, the process of receiving funds has been unproblematic. A few Awardees experienced delays but this has often been quickly resolved by Challenge Works.

### **3.5 Non-financial support**

Challenge Works have partnered with a variety of organisations to provide NFS to Awardees throughout the LPoD. Various webinars and opportunities to gain one-to-one support have been made available during the Discovery Awards, the coordination of which has taken substantial time and effort. All support was delivered online, which made it more accessible to international Awardees, although a few still commented on difficulties due to the time difference.

Awardees have also been provided with an online Innovator Hub where they are able to access information, key materials, webinar recordings, resources, and contact details for experts. This has been highlighted as a helpful resource where different team members can access a variety of relevant information and watch recordings of webinars they have missed. Some expressed that it would have been helpful to have the Innovator Hub set up from the very beginning of the Discovery Awards to counter queries earlier on in the Prize, but overall it is viewed as a helpful resource.

The LPoD Discovery Awards NFS programme has the following workstreams:

- **Co-design.** Alzheimer's Society and CABHI have provided specialist support on co-design and engaging with people affected by dementia.
- **Access to users.** Alzheimer's Society has organised and hosted online focus groups for Awardees who would like to connect with people affected by dementia in the UK, meanwhile CABHI consults with teams in North America to connect them with local organisations and users.
- **Technology and data support.** As of October 2023, STT have been contracted to provide technology and data support to Awardees for seven months, at a cost of £179,040 inc. VAT. AWS are also providing some consultancy and credits to use the AWS cloud.
- **Access to a pool of experts and mentoring.** Discovery Awardees have access to a pool of 10 experts available to them for 60-minute one-to-one sessions.
- **Business support.** Challenge Works have offered Awardees workshops and mentorship to support their business development. This is particularly aimed at organisations that are early stage start-up businesses and research teams.

Awardees were expected to take initiative and pursue support and connections on offer to enable them to effectively develop their solutions and build their business. The type and amount of NFS taken up by Awardees varied, with Awardees expressing that they attended sessions and accepted support as needed. Some indicated that, because they had specialist expertise in their teams already, they did not feel they would benefit from some of the NFS on offer.

It is difficult to conclude which type of support was considered most useful as this varied by team. It is likely that one-to-one support (which may be more costly) can be more tailored to specific needs. For those with less expertise in a certain area, webinars may be sufficiently detailed and also offer opportunity to hear from other Awardees and partners of the Prize.

Some elements of the NFS were offered too late in the process, according to Awardees, such as the technology and data support, discussed further in Section 3.5.2. Similarly, some stakeholders reflected that, while the plan was to tailor support once the Discovery Awardees were selected, there were several elements of the NFS that were always needed and they would have liked to see more detailed plans and arrangements made earlier on so that Awardees could make the most of the support prior to the next round of judging.

*“We were always going to wait for the needs assessments to be completed before providing the NFS as the innovators are so diverse, but this has meant delays”*

Stakeholder

While the different streams of NFS have resulted in a broad offer of support, it has been noted that to some extent these have been delivered in silos and a more holistic approach with greater collaboration between the various providers could have been beneficial.

It should be noted that, since the completion of fieldwork, Challenge Works have amended tender processes to ensure that NFS will be arranged for the start of the Finalist Awards in September 2024.

### 3.5.1 Co-design and access to prospective users

The co-design of solutions with those affected by dementia is seen as a key element of the LPoD and was cited by several Awardees as a motivator for their application. Many Awardees felt passionate about designing a solution fit for users, with the users at the core of the development.

Identifying and accessing users to test solutions has been highlighted as a key challenge during the Discovery Awards. While some Awardees have existing contacts and routes into recruiting people with dementia to test their solutions, others do not and have been trying to build on this during the Discovery Awards. Additional requirements, such as the need to complete ethical approval applications prior to testing, also had the potential to delay progress for some.

Challenge Works and Alzheimer's Society have been working to find solutions to help Awardees and connecting them with partner organisations, such as CABHI for those working in North America. Some Awardees have attended online focus groups hosted by Alzheimer's Society, which provide a space for Awardees to gain feedback from users. Some Awardees who attended the focus groups were given the opportunity to collect further information from users through a survey about their solution, which Alzheimer's Society circulated with focus group attendees. The online focus groups have been useful for some Awardees; however, others indicated a need for people to physically test their solution in person.

Some Awardees expressed that they would have liked greater engagement with Prize partners, such as with Alzheimer's Society. Direct contact between Alzheimer's Society and the Awardees may have facilitated efforts to support co-design.

It has been a particular challenge to help international Awardees outside of the UK and North America to access users. Alzheimer's Society has made attempts to support teams to access users, but their efforts are generally confined to the UK and relies on volunteers, which has led to challenges encouraging participation in focus groups on solutions that users find less exciting.

*“There’s a requirement that participants do their own recruitment and testing but I’m aware that there are teams in certain locations where there isn’t an obvious Alzheimer’s Society equivalent to go to or we don’t have very good links.”*

Stakeholder



Despite these challenges, several Awardees discussed the value of gaining insight from people affected by dementia to help develop, test and improve their solutions.

*“We’ve been doing face-to-face consultations with a group of people with dementia and another with peers. We talk through the design and their lived experience, and what matters to them in the design...”*

Awardee

### 3.5.2 Technology and data support

The STT were contracted in October 2023 to provide technology and data support during the Discovery Awards through a programme of workshops and one-to-one support. They met with most Awardees in December 2023 and January 2024 to conduct needs assessments to help plan out the support offer. Many Awardees described this as a useful discussion to reflect on the progress of their solution and found STT’s insight helpful for identifying areas of their work to focus on more closely. Support provided by AWS, including cloud and data support, has also enabled a few Awardees to develop their solution further.

As the Awardee teams are very varied in terms of their level of expertise and capabilities, as well as the stage at which they are at in the development of their solution, some have had greater support needs than others. Some Awardees reflected that they had little need of additional support in this area, particularly at the time it was offered. This breadth of need has also made it difficult to plan the level at which to pitch support, particularly in workshops, as there is a need to cover more basic information for some which is less useful for those with more advanced knowledge.

Although viewed positively by many, it has been reflected that the technology and data support came too late, as most Awardees interviewed in January 2024 had not yet had a chance to utilise the support and would have liked to access STT expertise earlier. Some Awardees and stakeholders did not feel that there was sufficient time left within the Discovery Phase for Awardees to make the most of this support.

*“If we were told we could have tech support sooner it would have helped us to start thinking about this earlier, it would have helped with planning... We could have planned different aspects more efficiently.”*

Awardee

The remit of support on offer was also not clear to all. While STT were commissioned to provide technology and data support specifically, this overlaps somewhat with other areas such as co-design, business development and commercialisation which some Awardees also wanted support with.

### 3.5.3 Access to experts and mentoring

Discovery Awardees have access to a pool of 10 experts who were available for them to book 60-minute one-to-one sessions. Each team could book up to six



sessions of support between October 2023 and May 2024 and were required to prepare a brief and questions for each session they book.

Initially, a low number of sessions were booked in by Awardees and Challenge Works increased the communication on this opportunity in response to this. A few Awardees expressed having a positive experience and gained useful insight through a mentor/expert that they had spoken to. If this provision goes unused, Challenge Works plan to review how to repurpose the approximate £20,000 budget for this workstream.

In addition, Awardees have been invited to attend some external events in order to connect with other experts in the field of dementia care and research. For example, the Longitude Prize on Dementia Discoveries Showcase, an Alzheimer's Society Fundraising Event which was attended by nine Discovery Awardees (including two international teams). The Healthy Ageing 2023 Conference run by Innovate UK was hosted in November 2023 with innovators, members of the Judging Panel, LPoD stakeholders, the Challenge Works team, and Healthy Ageing Community in attendance. There will also be an Alzheimer Disease International Conference held in April 2024 in Poland, which Awardee's are invited to. The LPoD will be hosting a breakfast symposium during this conference and Awardee's solutions will be showcased to attendees using printed and online booklets.

#### 3.5.4 Business development

During the Discovery Awards, Challenge Works has offered workshops and mentoring support to help Awardees develop their business model and understand how to establish partnerships they may need to progress their solution.

However, several Awardees were unaware of what the business development support on offer entailed and indicated they had not had much support in this area. While some larger organisations and universities already have access to experts in business development others lacked this resource. Some Awardees expressed that greater support and information on the legal aspects of business development and patenting their idea would have been welcomed.

### 3.6 Preparation for Finalist submissions

By the end of the Discovery Awards phase, Awardees will be expected to have developed their solution to a prototype level and will need to present a detailed submission for evaluation against the judging criteria. The solution should:

1. Use a technology whose core features are usable independently by the target population (people living with dementia).
2. Have been tested with a spectrum of real users who are at different stages of progression with early to mid-stages of dementia.
3. Demonstrate initial evidence of adaptability.

Overall, at the time that fieldwork was carried out (January 2024), many Awardees did not feel very well informed about the upcoming Finalist application and selection stage and were unsure what the requirements and expectations would be.

*“We’re very excited about the next stage but [would like] a bit more advice on how we can best demonstrate our outcome. Is it a pitch or do we submit a form? ... What are the key bits that they are looking for? It would be helpful to see [this] to prepare our application.”*

*Awardee*

Similarly, stakeholders reported a lack of clarity around what would be involved in the next stage of application and assessments, with some indicating a need to know this in order to best advise Awardees they were working with. It was reflected that the context of the broad diversity of Awardees, including the different stages to which their solutions were developed to at the start of the LPoD, would need to be taken into account in the judging and it was not yet clear how this would be done. The need to prepare judges and the LEAP for the next round of assessments was highlighted, as they had limited exposure to the teams during the Discovery Awards.

Some also highlighted a lack of clarity on how the Finalist stage itself will be delivered. For example, what expectations and criteria, if any, would need to be met to receive funding (at what point might funding be pulled) and what non-financial support will be delivered.

Awardees also stated that they would have liked to know more about the other teams and solutions. This would have been particularly helpful for teams interested in collaborating and learning from other Awardees. As use of the Slack channel was very limited, alternative ways to enable Awardees to share learning and possibly establish working relationships and collaboration would have been useful. Additional in-person activities/events and opportunities for Awardees to network may have allowed greater collaboration and shared learning. However, some Awardees and stakeholders also stated that because the LPoD is a Prize, this ultimately creates competition between teams, which may act as a barrier for greater knowledge sharing.

Since the fieldwork was completed, further information has been provided to Awardees via email, including guidance on the applications and judging criteria for the Finalist Awards; the provision of ‘Ask Us Anything’ sessions in April/May; the ADI conference; plans for mandatory consultation between each team and the LEAP; the addition of a new business expert available to provide support; and updates on masterclasses with STT. These activities are beyond the scope of the current process evaluation.

### 3.7 Monitoring activities

During the Discovery Awards, Awardees have been expected to report on their progress to Challenge Works through the completion of quarterly reports via Submittable. Overall, Awardees did not find monitoring to be burdensome and

when compared to their experiences with other types of funding, the LPoD is viewed positively. The LPoD can therefore be seen as inclusive, as smaller teams with less capacity are not overburdened by administrative requirements. Several also indicated that monitoring provided them with a useful opportunity to reflect on their progress and do some internal problem solving.

*“It’s helpful to develop a budget and milestones and report on that. It’s given us a clear structure, which has been useful.”*

Awardee

However, a few did feel that reporting was too frequent as they did not have new information to report each quarter. Others would have liked to be able to provide more information/explanation on how funds were spent or would have liked more engagement around the reports, such as a follow-up call to ensure they were on track.

Once completed, Challenge Works reviews and analyses the monitoring data provided, assigning a Red, Amber or Green (RAG) rating and requesting further information as needed. For example, in quarter two, five teams were marked as Amber due to low spend or slow progress and were asked for additional information. A summary of the monitoring information is then fed back to the Programme Board, where any unresolved issues are discussed.

Stakeholders presented mixed views on the monitoring process, particularly in terms of the level of detail needed. In addition, it was highlighted that the monitoring involved completion of a self-report form without a structured framework to track progress, and there was a lack of clarity around what would be done if teams were struggling and at what point funding might be pulled. This in part reflects differences in partners’ expectations around the need to track and explain how funds are spent, with Innovate UK requiring a more rigorous process.

## 4 Outcomes of the Discovery Awards

### 4.1 Overview

This chapter outlines key outcomes which stakeholders and Awardees have achieved or hope to have achieved by the end of the Discovery Awards phase. As interviews were conducted several months before the end of the Discovery phase, we present the Awardees progress at the time of fieldwork, and assess the extent to which there is promising evidence to suggest that the right progress has been made to have confidence that longer-term outcomes will be achievable. Further evaluation will be needed to assess longer-term outcomes and impact of the LPoD.

#### Key messages

Stakeholders and Awardees identified several ways in which short-term outcomes outlined in the LPoD logic model are being achieved, indicating progress towards the longer-term objectives. These outcomes included:

- **New teams attracted to the field.** The LPoD appears to have had a global reach and attracted 163 in scope applications including some new innovators to develop smart technology for people affected by dementia. The large number of applications suggests that the Prize provides sufficient incentive to attract innovators. However, a large proportion of applicants were based in the UK (n= 81/163) and USA (n=27/163), and survey data suggest that most (n=32/35) had previously received funding to develop technology and only 16 of 35 respondents had not previously applied for funding from the LPoD partners. Therefore, it is likely that only some applications came from innovators new to the field.
- **Improved innovation skills and capabilities.** NFS support offered through the LPoD, including workshops and mentoring opportunities, have helped some Awardees to develop their skills in co-design and business development. The extent of the impact is not clear.
- **New products and technologies developed.** The LPoD has enabled many Awardees to accelerate the development of their solutions through funding and NFS. Most stakeholders are confident that there are at least five good candidates developing innovative solutions who could be taken forward to the next stage of the LPoD.
- **Leverage of further investment.** Some Awardees indicated that they have been able to use their involvement in the LPoD to leverage further investment and build new collaborations. Several plan to continue working on their solution even if they are not successful in the next round of the LPoD.
- **Increased interest and activity in the problem space.** At this stage it is difficult to know the extent to which the LPoD has increased attention on

the need for smart solutions to support people living with dementia. However, through the international reach, the partnerships that have been developed and external communications on the Prize, the LPoD has started to work towards this.

Overall, several Awardees indicated that the LPoD compared favourably to other types of funding they had experience with, as the application was less demanding and the Prize involved non-financial as well as financial support.

## 4.2 Outcomes

The LPoD Logic Model outlines outcomes that the Prize aims to achieve, outcomes that the Discovery Awards have started to work towards and achieve are summarised below, these include:

- new teams attracted to the field;
- improved innovation skills and capacities within Awardees;
- new products and technologies developed;
- leverage of further investment;
- increased public awareness.

Awardees and stakeholders reflected that progress has been made, which can provide confidence for the achievement of future goals.

### 4.2.1 New teams attracted to the field

As discussed in Section 3.2.2, the LPoD attracted 163 in scope applications from 26 countries across the globe. The large number of applications suggests that the Prize provided sufficient incentive for innovators to apply.

However, a large proportion of applicants were based in the UK (n= 81/163) and USA (n=27/163). Data also indicates that the majority of applicants who completed the survey had previously received funding to develop innovation (31 out of 35 respondents) and several had previously applied for funding from the LPoD partners (only 16 out of 39 respondents indicated they had not). Only four survey respondents indicated that their primary expertise was 'dementia Expertise including lived experience' and nine indicated 'other' including a combination of technology, data science and dementia expertise. This information suggests that it is likely that only some applications were received from innovators new to the field.

While Awardees report that the initial £80k Prize for the Discovery Award phase is insufficient to fully develop new technology, it was still an attractive prospect to progress an idea. In addition, the perceived prestige of the LPoD motivated Awardees to apply. Applicants, and in turn Awardees, varied widely, from

academic researchers to small businesses, and have expertise in different areas of technology and/or dementia care.

In interviews, some Awardees highlighted that they had been able to create/grow their team or enter into new collaborations because the LPoD had enabled them to. For example, teams had been able to recruit specialist staff and at least one business entered into a new collaboration with a university, and this aided the development and testing of their technology solution.

*“We brought on a health researcher who has experience in participatory co-design and working with the patient population to figure out solutions that work for them.”*

Awardee

However, some stakeholders and Awardees indicated that the LPoD also had created competition due to the nature of it being a Challenge Prize with one final winner. This could be a barrier to networking and collaboration between Awardees because some may want to protect their ideas and compete for the funds rather than collaborate. However, it can also motivate and drive Awardees to develop their solutions to a high quality in order to win the prize.

#### 4.2.2 Improved innovation skills and capacities within Awardees

The NFS is a novel element of the LPoD compared to other funding mechanisms that Awardees had previous experience with, and this additional support was appreciated by many. Some Awardees indicated that they had been able to upskill, for example, in terms of their understanding around co-design and business model development, and this had enabled them to better develop their solutions and business.

*“I didn’t have experience in working with people with lived experience. So this Prize helped me learn to communicate with them, then collaborate with them. I got a lot of ideas and learnt to bridge the gap between tech and care.”*

Awardee

Stakeholders stated that some Awardees may feel unsure about whether they are being judged or supported when going through the process of needs assessments and attending mentoring and workshops. Time is therefore needed to build trust with Awardees, so they are able to discuss concerns and establish the support needed.

As discussed in section 3.5.2, several Awardees and stakeholders reflected that the tech and data support was delivered too late in the Discovery Awards and it would have been helpful to have access to this earlier. At the time of interviews in January 2024, Awardees could not comment in depth about the impact of this element of the NFS. Clearer plans on the NFS support on offer from the start of the Discovery Awards would have allowed Awardees to better plan how they would incorporate this into their learning and development.

#### 4.2.3 New products and technologies developed

Survey data indicates that a large proportion of Awardees (12 of the 21 respondents) had been working on their solution for less than one year prior to application, suggesting the LPoD attracted some newly developing ideas.

In interviews, Awardees reported that the LPoD has allowed the development of new, as well as existing technology to help support people with dementia. For example, some teams explained that they had worked in the dementia field for a long time, but they had not previously built technology with AI or machine learning, and this was the first time they were incorporating this technology into solutions for people affected by dementia. Similarly, some teams explained that whilst the technology of their solution already existed in some form, it had not previously been tailored for use by people with dementia specifically. The LPoD has therefore contributed to increased interest and progress in the development of technology for those affected by dementia as the financial support and NFS has enabled many Awardees to accelerate progress in the development of their solution.

*“We already had the idea and were developing the platform for older people but the LPoD supported the product development for people with dementia... We still would have done this development, but it would have been slower.”*

Awardee

Although the recruitment of people with dementia to test solutions has been a challenge, Awardees have been working to keep users’ needs at the centre of the development of their solution. This has been difficult for some but valuable to the end product.

Whilst the cohort has been described as mixed in terms of their level of development, and some stakeholders raised concerns about whether solutions were breakthrough innovations, there is a general shared belief between stakeholders and most Awardees that they are making good progress and will be in a position to apply for the next stage. Most stakeholders were confident that there will be five strong contenders for the next round of the LPoD.

Some Awardees have also confirmed that, although they would like to be successful in the next round, they will be going forward with the development of their solution regardless of whether or not they continue with the LPoD.

It is important to note that while anecdotal evidence suggests that progress has been made, it is difficult to understand the extent to which solutions have truly progressed and how the LPoD has contributed to this without a formalised framework for tracking progress and impact. The next round of applications and assessment will also help to clarify progress.



#### 4.2.4 Leverage of further investment

An additional aim of the LPoD is to leverage innovators to gain further investment outside of the LPoD, so that they can go on to fully develop their solutions. This leverage, that would come from taking part in the LPoD and receiving funding from two high status UK funders, was a key motivator for Awardees.

Some indicated that the LPoD had given weight to their solutions as a viable idea and had gained attention and publicity for the teams within the dementia field. This has enabled some to secure new collaborations and contracts with other partners as a result. For example, an Awardee explained they had previously been unable to form partnerships; however, they were able to successfully renegotiate the partnership after their success on the LPoD. The publicity around the teams and their solutions is therefore seen as an important element of the LPoD, although some Awardees would have liked additional coverage.

Awardees are beginning to make connections with other funders and are networking to form partnerships in order to ensure they are able to continue with the development of their solution outside of the LPoD if they are unsuccessful. Therefore, even though only five solutions will be taken into the next round of the LPoD, it is possible that other solutions may also be developed further with the aim to be brought to market.

Stakeholders are keen to establish plans on how Awardees can be followed up in future to establish the longer-term impact of the investment.

#### 4.2.5 Increased interest and activity in the problem space

The LPoD aims to drive innovation to develop ideas and solutions to promote the quality of life of people affected by dementia. Some stakeholders suggested that the LPoD was improving awareness and attracting attention within the field through its global reach, the partnerships developed, and media coverage of the Prize and Awardees. This is seen as an important additional outcome, but one that is difficult to measure and assess. The extent to which this is being achieved is therefore currently unclear.

### 4.3 How the LPoD compares to other funding/grants

Awardees reported that their experience of applying to and taking part in the LPoD compared positively to other types of funding they had previously applied for/received. There are several aspects that differentiate the LPoD that make it an appealing prospect for innovators:

- The application seemed shorter, simpler and less demanding than other funding applications. The lack of requirement to provide detailed budgeting information at application was beneficial as it would have been difficult for some Awardees to allocate funds in the early development stages.
- The LPoD had a global reach and was the first time that some international teams had received UK funding, which was in-part made possible by the



involvement of Alzheimer's Society as a co-funder. Despite not being based in the UK, international teams generally found the processes of the LPoD worked well. The international aspect of the Prize meant that Awardees could connect with others working in the technology and dementia field from across the world, learn from their experiences and share knowledge.

- The LPoD is a somewhat novel funding mechanism due to the Prize element and because it provides a range of NFS as well as funding. Awardees appreciated this additional support and, along with the funding, it helped several to accelerate the development of their solution and business development.

## 5 Discussion and recommendations

### 5.1 Overview

This section provides a summary and discussion of the key findings of this process evaluation and presents some suggested recommendations for the continuation of the LPoD and similar future investments.

### 5.2 Discussion of key findings

This report highlights some of the achievements and complexities of running a Challenge Prize aimed at stimulating innovation in dementia care. The insights gathered provide valuable lessons for managing partnerships and supporting innovators which are critical for the success of similar future investments.

Figure 9 provides a discussion of findings from this process evaluation linked to each research question.

Figure 9: Research questions and discussion of findings

Research question	Discussion of findings
Governance	
How has the governance (i.e., the Longitude Committee, the Prize programme board, the Judging Panel and Prize awarding) affected the delivery of the Prize so far?	<ul style="list-style-type: none"> <li>• The LPoD is the first time that Challenge Works, Innovate UK and Alzheimer's Society have worked together and there is a recognition that each partner brings unique skills to the table.</li> <li>• Stakeholders noted that the three partners have some differing needs and expectations, particularly in terms of monitoring how money is spent. Innovate UK's additional requirements have increased the rigor of the Prize, but this has needed greater resources and effort to deliver by Challenge Works.</li> <li>• Stakeholders reflected that the Programme Board meetings have provided space for helpful discussions and problem solving, although more could have been done at the start of the LPoD to establish the needs of the different partners and non-negotiable elements so that this could be factored in in advance.</li> <li>• The Judging Panel and the LEAP have also been effective in shaping the LPoD. In particular, although the LEAP did not have a vote, their review of which applicants should be brought into the Discovery Awards was valuable.</li> </ul>

Research question	Discussion of findings
Delivery of the LPoD and ways of working	
How effectively has the Challenge Prize been delivered and was it delivered as intended? Which factors have acted as facilitators or barriers to delivery of the LPoD?	<ul style="list-style-type: none"> <li>Overall, stakeholders and Awardees felt that the LPoD has been delivered effectively, despite some challenges.</li> <li>Awardees generally had a positive experience and the LPoD compared well to other types of funding.</li> <li>Facilitators and barriers are included below throughout the findings of the other research questions.</li> </ul>
What are the views of the innovators, and other key stakeholders involved, on what is working more or less well regarding the delivery of the LPoD?	<p>Aspects of the LPoD that have worked well and acted as enablers include:</p> <ul style="list-style-type: none"> <li>The application process. Awardees reflected that it was a relatively short and simple application to complete and not administratively burdensome.</li> <li>The provision of financial and non-financial support was seen as beneficial to helping Awardees develop skills and their solution.</li> <li>The Innovator Hub is a useful resource where Awardees can access information on the LPoD, book mentoring sessions, and watch back recordings of workshops.</li> <li>The involvement of the LEAP and emphasis on co-design has been important to ensuring that solutions are selected and developed with people affected by dementia at the centre. This is viewed as essential to ensure that the end product is fit for use with the target cohort.</li> </ul>

Research question	Discussion of findings
	<p>Elements of the LPoD that have worked less well and acted as a barrier include:</p> <ul style="list-style-type: none"> <li>• Meeting the non-financial support needs of such a diverse group of Awardees (in terms of their innovations but also their stage of development).</li> <li>• The planning and timing of non-financial support has been delayed, in particular many felt that the technology and data support should have been provided from the start of the Discovery Awards.</li> <li>• Recruitment of people with dementia to test solutions. Although Alzheimer's Society and CABHI have been able to offer some support in this area, greater planning of how to support recruitment, particularly for international teams, was needed.</li> <li>• Transparency in decision-making processes was also a point of contention, especially among unsuccessful applicants.</li> </ul>
To what extent did the timing and support provided in the different phases of the Prize affect individuals' overall experience of the programme?	<ul style="list-style-type: none"> <li>• The financial support was viewed positively and helped Awardees to begin or continue to develop their solutions.</li> <li>• There was a delay between onboarding of Awardees and the start of the non-financial support (which was also only provided once needs assessments had been completed). Stakeholders and Awardees identified a need to be informed about what support is on offer at the start of the programme as this would enable greater planning around how to incorporate this.</li> <li>• Awardees indicated a lack of clarity and guidance on how to prepare for the next round of submissions. Improved communication about expectations, timelines, and</li> </ul>

Research question	Discussion of findings
	the types of support available in this phase could have enhanced their experience and preparation efforts.
<p>What resources and support are helping the innovators to meet their objectives and what is missing?</p> <ul style="list-style-type: none"> <li>What types of support do innovators consider most useful, and how does this relate to the cost of that support?</li> </ul>	<ul style="list-style-type: none"> <li>Financial support is allowing teams to develop their solutions and network for future funding support elsewhere.</li> <li>Non-financial support has supported Awardees to develop co-design skills specifically when working with people affected by dementia as well as in business development.</li> <li>Some awardees noted a desire for improved communication regarding the support available.</li> <li>The support that Awardees found most useful varied, partly due to the diversity of the cohort, at this time we cannot comment on the cost of preferred support.</li> </ul>
<p>How are the interactions between the innovator teams and other stakeholder groups changing/influencing the proposed solutions addressing the problem?</p> <ul style="list-style-type: none"> <li>In particular, to what extent, and how, has the co-design of solutions with people affected by dementia</li> </ul>	<ul style="list-style-type: none"> <li>A strong ethos of co-design has been valuable for ensuring the views of people affected by dementia are included in decision making and the development of solutions.</li> <li>The recruitment of people living with dementia to test solutions has been a challenge for some Awardees without existing networks.</li> <li>Some Awardees reflected that they would have appreciated more opportunities to network with other Awardees and partners involved in the funding and delivery of</li> </ul>

Research question	Discussion of findings
changed and/or de-risked the innovation process?	the LPoD. The competitive nature of the Prize was flagged as a potential barrier to greater collaboration between Awardees.
Outcomes	
<p>Does the Challenge Prize provide a sufficient incentive for innovators - particularly those new to the problem area - to enter the assistive technology and dementia sector?</p> <ul style="list-style-type: none"> <li>• What types of innovators and organisations have applied to the Longitude Prize on Dementia? Are they new to the field of dementia or have they worked in this space before?</li> <li>• What motivated innovators and organisations to apply to the Challenge Prize?</li> <li>• Are Prizes considered to be accessible and with low barriers to entry?</li> </ul>	<ul style="list-style-type: none"> <li>• The LPoD appears to have been effective at attracting innovators to develop smart technology solutions to help people affected by dementia.</li> <li>• A large number of applications were received from teams across the globe (26 countries), including those new to the field of dementia.</li> <li>• The majority of applicants were small, incorporated businesses or part of academic institutions.</li> <li>• Motivations included the financial and non-financial support on offer to develop solutions as well as the prestige of a Challenge Prize to add credibility to their work.</li> <li>• The LPoD was considered accessible and with low barriers to entry by many applicants. The application process was straightforward and not overly burdensome, making it easier for a wide range of innovators to apply.</li> </ul>

Research question	Discussion of findings
To what extent does the Prize, including the support and resource provided by the Prize, enable innovators to develop their solutions more quickly and to a higher quality than they might have achieved without the Prize?	<ul style="list-style-type: none"> <li>• The LPoD has enabled many Awardees to accelerate the development of their solutions through funding and NFS.</li> <li>• Some Awardees indicated that they have been able to use their involvement in the LPoD to leverage further investment and build new collaborations.</li> <li>• We are unable to assess quality at this stage of the Prize, however there were some reflections from Stakeholders that some of the innovations being developed by Awardees are not 'breakthrough'. Given the current technology landscape within dementia care, perhaps expectations needed to be adjusted in this regard.</li> <li>• Most stakeholders are confident that there will be five strong candidates for the next round of the Prize.</li> <li>• Several Awardees have indicated that they will continue to develop their innovation even if they do not progress any further in the Prize.</li> </ul>
Lessons for future Prizes	
<p>What potential lessons are there for future Challenge Prizes?</p> <ul style="list-style-type: none"> <li>• Are there any lessons on the criteria that support an effective Challenge Prize and the role of similar funding mechanisms in the future?</li> </ul>	These form the basis of our recommendations provide in Section 5.3.



Research question	Discussion of findings
What questions might further evaluation of the LPoD aim to address?	<p>Further process evaluation of the LPoD should focus on:</p> <ul style="list-style-type: none"><li>• Future judging rounds and how these are managed.</li><li>• Non-financial support offers to Awardees and if this meets their needs.</li><li>• How involved people living with dementia are in the rest of the Prize and the impact of this.</li><li>• Understanding of the cost effectiveness of the Prize, given the amount allocated to Awardees and the amount for administration of the Prize.</li></ul>

### 5.3 Recommendations

The following recommendations are designed to enhance the effectiveness, reach, and impact of the LPoD and similar future investments. These should support participating innovators more effectively, and ensure the program's governance and delivery approaches are aligned with its goals. Challenge Works have already been working to address some of the challenges highlighted in this report.

#### Effective Programme Management

1. **Establish a clear governance framework early:** To prevent delays and misunderstandings, all partners should establish clear governance structures, roles, and non-negotiables at the outset. This framework should accommodate the diverse governance requirements and expectations of all partners involved.
2. **Provide clear guidance to Judges and promote consistency of approach:** Ensure that Judging Panels have a broad range of relevant expertise and that Judges with specific expertise in the field of the Prize (in this case dementia care) review each application. Establish clear guidance on the approach to be taken to reviewing applications and clarify red lines in terms of the remit of the panel.
3. **Refine monitoring processes:** Develop a balanced monitoring framework that accommodates the needs of all partners without imposing undue administrative burdens on participants. Greater understanding between partners on the purpose of monitoring would be beneficial.
4. **Improve transparency and communication:** Ensure fairness and transparency in decision-making processes and provide clear, detailed guidance on requirements and expectations for each phase of the program. Establish direct lines of communication between participants and Challenge Works for queries and support.

#### Supporting Awardees

5. **Foster stronger partnerships:** If a global reach is a key goal, develop strategic partnerships with organisations in various countries beyond the UK and North America to facilitate global reach and support international teams more effectively, particularly in accessing users for testing solutions.
6. **Enhance non-financial support (NFS):** Offer a more structured and comprehensive NFS package from the start of the program. Clearly communicate available support, including technology and data assistance, to allow participants to plan and incorporate these resources effectively.
7. **Leverage the Lived Experience Advisory Panel (LEAP) and support recruitment of users:** Continue involving the LEAP and others affected by dementia in all phases of the program to ensure that solutions are co-designed with and for people affected by dementia. Identify and support routes to recruit people to test solutions.
8. **Facilitate networking among Awardees:** Create more opportunities for Awardees to network, share learning, and explore potential collaborations.

While maintaining the competitive nature of the Prize, encourage a culture of collaboration and mutual support among innovators.

#### **Continue Process Evaluation**

9. **Assess changes made to LPoD governance:** Further evaluation of updated processes, particularly around assessment and selection of applications and monitoring decision making, to identify whether these are working as intended.
10. **Evaluate on-going NFS:** Continue to evaluate the extent to which NFS enables Awardees to develop their solutions quickly and to a high standard and which types of support are valued most. If achieving international reach remains a goal, investigate whether there are barriers to participation for international teams and develop strategies to address them.

## 6 Appendix A – Logic Model for the LPoD

Logic Model for the Longitude Prize on Dementia

Context	Objective	Inputs	Activities	Outputs	Outcomes / Impact
<p>Dementia cases in adults worldwide are on course to triple to <b>153 million by 2050</b>. We know that people living with dementia would like to remain at home for as long as possible, and that, in the absence of a cure, innovative solutions are needed to help them retain that independence. Existing markets for dementia care are not providing the socially optimal level of incentives for innovation, with a gap in the provision of truly user-centred and adaptive technologies for this purpose. The needs &amp; challenges of people affected by dementia are inadequately met and innovative capacity to uncover novel solutions remains untapped.</p>	<ul style="list-style-type: none"> <li>- Incentivise new innovators to enter the assistive tech &amp; dementia sector</li> <li>- Maximise participation by supporting existing innovators to adapt or improve solutions</li> <li>- Support new partnerships and knowledge-sharing between these innovators and other key stakeholders</li> <li>- Facilitate the co-design of solutions with people affected by dementia</li> <li>- Introduce new and transformative solutions that help people live independently for longer</li> <li>- Raise wider awareness and support of the issue, also contributing to new standards on user-testing and new market opportunities.</li> </ul>	<p>£4.4m total prize fund: split between £3.4m in seed funding / grants and £1m final prize.</p> <p>CW time inputs for prize design and delivery work, including assessment of applications, disbursement &amp; monitoring of funds, engagement &amp; communications, and validation of solution effectiveness.</p> <p>Time / cost input from assessors &amp; judges.</p> <p>Partnership knowledge and expertise.</p>	<ul style="list-style-type: none"> <li>- Prize platform built &amp; populated</li> <li>- Communications and engagement activities to stimulate innovator interest and applications</li> <li>- Applications assessment and due diligence</li> <li>- Planning and provision of Discovery awards and finalists innovation support</li> <li>- Judging panel convened and supported</li> <li>- Solution scoring, ranking and assessment - Ongoing communications, engagement &amp; PR activities</li> <li>- Convening and speaking at sector events.</li> </ul>	<ul style="list-style-type: none"> <li>- New teams and partnerships engaged in competition</li> <li>- Discovery and finalist awards distributed</li> <li>- Leverage of further investment</li> <li>- Skills / capacity acquisition to test and develop solutions</li> <li>- New co-design processes implemented</li> <li>- New processes for product evaluation with users</li> <li>- New products and technologies</li> <li>- Key stakeholders are engaged in the prize programme</li> <li>- Prize coverage across range of media channels.</li> </ul>	<p><u>Intermediate outcomes</u></p> <ul style="list-style-type: none"> <li>- A diverse base of innovators tackle the problem</li> <li>- New / improved standards for testing technologies</li> <li>- Novel solutions are proven effective in independent living settings</li> <li>- Improved innovation skills and capacities for supported teams</li> <li>- Increased interest and activity in the problem space</li> <li>- More stakeholders engaged with the problem improves the ecosystem for assisted cognition and dementia</li> </ul> <p><u>Impact</u></p> <ul style="list-style-type: none"> <li>- Effective solutions are successfully taken to market</li> <li>- Stimulation of a new and improved community of innovators working on dementia solutions</li> <li>- Increased public and industry awareness of how technology can support people living with dementia</li> <li>- People with dementia are able to live independently for longer</li> <li>- People affected by dementia have improved wellbeing and quality of life.</li> </ul>

## 7 Appendix B – Documentation reviewed

The following additional documents were reviewed for this report:

- Challenge Works (2023) Communication to Innovators (Discovery Awards)
- Challenge Works (2023) LPoD Applicant Dashboard
- Challenge Works (2023) LPoD – NFS Survey Results
- Challenge Works (2023) LPoD NFS Tender for Technology and Data Support
- Challenge Works (2023) LPoD Co-Creation Workshop – Outline – 25 July 2023
- Challenge Works (2023) LPoD Innovator Q1 and Q2 Reports
- Challenge Works (2023) LPoD Non-Financial Support Plan for the Discovery Phase 14 Aug
- Challenge Works (2023) Programme Board Reporting Y1 Y2Q1 version 2
- Challenge Works (2024) Programme Quarterly Review Report (Y2, Q3)
- Challenge Works (2024) Social Tech Trust Report, January 2024
- Challenge Works (2024) LPoD 4-year implementation plan
- Challenge Works (2023) LPoD Programme Board Meeting Minutes (October 2023)
- Challenge Works (2024) LPoD Finalist Phase Communications Strategy
- Challenge Works (2024) LPoD Innovator Q2 Reports
- Challenge Works (2023) LPoD Programme Board Meeting Agenda for January/February 2024
- Challenge Works (2023) Summary analysis of 24 Innovators - Q2 Report
- Challenge Works (2023) Longitude Prize on Dementia and A Media Partnership (Dec 2023)
- Challenge Works (2023) LPoD Judging Panel Meeting Minutes (28.03.2023)
- Challenge Works (2023) LPoD Moderation Meeting Minutes (21.02.2023)
- Challenge Works (2024) Communication to Innovators (Discovery Awards)

- Challenge Works (2022) Longitude Dementia - July 2022 Launch Comms Plan DRAFT v3
- Challenge Works (2023) LPoD Assessor training
- Challenge Works (2023) LPoD Guidance to Judges
- Challenge Works (2024) LPoD weekly round-up for partners
- Challenge Works (2023) Programme Board LPoD Comms (08.2023)
- Challenge Works (2023) LPoD Hackathon Guide (16.11.23)
- Challenge Works (2024) LEAP meeting agenda and pre-read (23.06.2023)
- Alzheimer's Society (2023/24) LEAP meeting notes (06.2023; 21.09.2023; 14.12.23; 15.03.23; 17.03.23; 21.09.23; 23.06.23; 8.02.2024)
- Alzheimer's Society (2023) LEAP scores anonymised – Discovery Phase
- Alzheimer's Society (2023) LEAP\_ Judging Panel Comments (06.2023)
- Alzheimer's Society (2022) Longitude Prize 'Hackathon' briefing
- Alzheimer's Society (2023) LPoD Judging Panel Discovery Phase – LEAP presentation.
- Challenge Works (2023) LPoD LEAP Chair Agreement – v2 Final
- Challenge Works (2024) LPoD LEAP Member Agreement – v2 Final
- Challenge Works (2024) LPoD LEAP Vice Chair Agreement – v2 Final
- Challenge Works (2024) Meeting with LEAP (02.2024)
- Alzheimer's Society (2023) Notes for LPoD presentation from LEAP (28.03.23)

## 8 Appendix C – Applicant survey analysis

### 8.1 Overview

This section provides the key findings from the online survey of applicants.

The survey results indicate that the LPoD attracted a variety of applicants internationally, with expertise in technology, artificial intelligence/data science and dementia care. A proportion of applicants are new to Innovate UK and partners.

Applicants were clear on the purpose and requirements of the LPoD and the majority (70%) had a positive experience with the application process overall. However, there are some areas for improvement, in terms of the level of communication, particularly regarding transparency of the application outcome and feedback.

Awardees' experience during the initial entry period into the Discovery Awards appears mostly positive, although information from open text questions (and from a review of quarter one reports) indicate that more support may be needed to enable effective co-design and testing of solutions.

Some limitations of the survey need to be considered when interpreting the findings of the report:

- **The response rate to the survey was low,<sup>11</sup>** approximately 29% (n=47) of applicants completed the survey, including some returned surveys with substantial missing data. If only the 40 complete surveys are taken into account, this represents a response rate closer to 25%. In particular, only around 19% of the 139 unsuccessful applicants took part, while 88% of Awardees took part. Applicants may have been reluctant to take part as they had previously been asked to complete a similar survey administered by Challenge Works before the Awardees were announced. There was little motivation for unsuccessful applicants to take part in this survey, while Awardees may be aware that there is an expectation that they will take part in evaluative activities as part of their involvement in the Prize. While the final sample includes an almost even split of Awardees and unsuccessful applicants, responses may not be reflective of the larger group of applicants due to the low response rate of unsuccessful applicants.
- **The data may be impacted by bias** because the survey was completed after applicants found out about whether or not they were successful. It is possible that unsuccessful applicants may be more negative about their experience of the LPoD application process compared to Awardees because they were unsuccessful. This has been highlighted where apparent.

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<sup>11</sup> Although the response rate was low for robust data collection, this is fairly normal for Innovate UK evaluation surveys and not below expectations.



- **The delay between application and survey completion** (approximately 7 months) may mean that some individuals (both Awardees and unsuccessful applicants) may have forgotten details or misremembered their experience with the application process. Awardees perceptions of the application stage may also have been influenced by their continued experience within the Prize.

*Please note, for a number of the survey questions, respondents could choose multiple answers therefore the total number of responses varies throughout. We have indicated total number of respondents in all included figures.*

## 8.2 Respondent characteristics

47(29%) teams completed the survey, including seven with substantial missing data (who did not provide background details). The sample includes 21 of the 24 Awardees and 26 unsuccessful applicants. Figure 10 and Figure 11 provide details of the survey sample, broken down by Awardees and unsuccessful applicants.

Survey respondents were from across the globe; however, the majority had a head office based in Europe, of which 23 were based in the United Kingdom (UK). This represents a broader pool of innovators than is usual for partners to fund.

The majority of respondents were also incorporated businesses. This compares somewhat to the characteristics of the 163 'in-scope' applicants outlined on the LPoD Dashboard.

Figure 10: Survey respondent characteristics

	Awardees (n=21)	Unsuccessful applicants (n=19)	Total survey participant responses (n=40)	Total 'in scope' applications to the LPoD (n=163)
<b>Location</b>				
Europe	14 (67%)	14 (74%)	28 (70%)	104 (64%)
North America	4 (19%)	0	4 (10%)	34 (21%)
South America	1 (5%)	0	1 (3%)	3 (2%)
Asia	0	2 (11%)	2 (5%)	6 (4%)
Middle East	1 (5%)	0	1 (3%)	3 (2%)
Oceania	1 (5%)	0	1 (3%)	4 (2%)
Africa	0	3 (16%)	3 (8%)	9 (6%)



	Awardees (n=21)	Unsuccessful applicants (n=19)	Total survey participant responses (n=40)	Total 'in scope' applications to the LPoD (n=163)
<b>Organisation/entity type</b>				
Business – incorporated	13 (62%)	9 (47%)	22 (55%)	87 (53%)
Business – unincorporated	0	1 (5%)	1 (3%)	6 (4%)
Charity or non-profit organisation	2 (10%)	1 (5%)	3 (8%)	9 (6%)
Academic Institute	5 (24%)	3 (16%)	8 (20%)	27 (17%)
Partnership	1 (5%)	3 (16%)	4 (10%)	13 (8%)
Individual	0	2 (11%)	2 (5%)	12 (7%)
Public Sector organisation	0	0	0	2 (1%)
Other	0	0	0	3 (2%)

Figure 11: Survey respondent characteristics

	Awardees (n=21)	Unsuccessful applicants (n=19)	Total responses (n=40)
<b>Organisation size</b>			
1-9 employees	11 (52%)	14 (74%)	25 (63%)
10-49 employees	4 (19%)	0	4 (10%)
50-249 employees	1 (5%)	1 (5%)	2 (5%)
250 or more employees	4 (19%)	4 (21%)	8 (20%)
Not applicable	1 (5%)	0	1 (3%)
<b>Years of experience</b>			
Less than one year	6 (29%)	2 (11%)	8 (20%)

	Awardees (n=21)	Unsuccessful applicants (n=19)	Total responses (n=40)
1-2 years	4 (19%)	4 (21%)	8 (20%)
3-5 years	8 (38%)	8 (42%)	16 (40%)
6-10 years	2 (9%)	2 (10%)	4 (10%)
More than 10 years	1 (5%)	3 (16%)	4 (10%)
<b>Time spent on solution prior to application*</b>			
Less than one year	12 (60%)	9 (50%)	21 (55%)
1-2 years	7 (35%)	3 (17%)	10 (26%)
3-5 years	1 (5%)	3 (17%)	4 (11%)
6-10 years	0	2 (11%)	2 (5%)
More than 10 years	0	0	0
Other	0	1 (6%)	1 (3%)
<b>Primary expertise</b>			
Dementia Expertise including Lived Experience	4 (19%)	0	4 (10%)
Artificial Intelligence / Data Science	5 (24%)	5 (26%)	10 (25%)
Technology	7 (33%)	8 (42%)	15 (38%)
Inclusive Design	2 (9%)	0	2 (5%)
Other (including combination of above)	3 (15%)	6 (31%)	9 (23%)

\*n=38 due to missing data

Dashboard data provided on the 24 Awardees indicates they are working on a variety of solutions during the Discovery Awards, with the most common types being described as wearable technology (Figure 12).

Figure 12: Discovery Awardee solutions (taken from Dashboard, n=24)

Solution type	Count
Wearable	6 (25%)
Lighting	3 (13%)
Virtual companion	2 (8%)
Virtual assistant	2 (8%)
Monitoring	2 (8%)
Falls	1 (4%)
Wayfinding	1 (4%)
Reminiscence	1 (4%)
Hearing	1 (4%)
Assessment	1 (4%)
Virtual reality	1 (4%)
Reminders	1 (4%)
Speech	1 (4%)
Entertainment	1 (4%)

### 8.2.1 Previous funding applications

32 respondents indicated that they have received funding of some sort in the past three years for any innovation (Figure 13).<sup>12</sup> 16 (41%) respondents indicated that they had not previously applied to one of the Prize partner organisations (Figure 14). This suggests that whilst applicants may be experienced and this is not their first innovation to receive funding, a substantial proportion are new to these funders.

<sup>12</sup> Five respondents appear to have skipped this question and have missing data. It is unclear whether these five and the three who indicated 'prefer not to say' received funding in the last three years.

Figure 13: Have you or your team received funding through any of the following financial tools in the last three years to support any innovation activities you have undertaken? (Please select all that apply) (n=35)

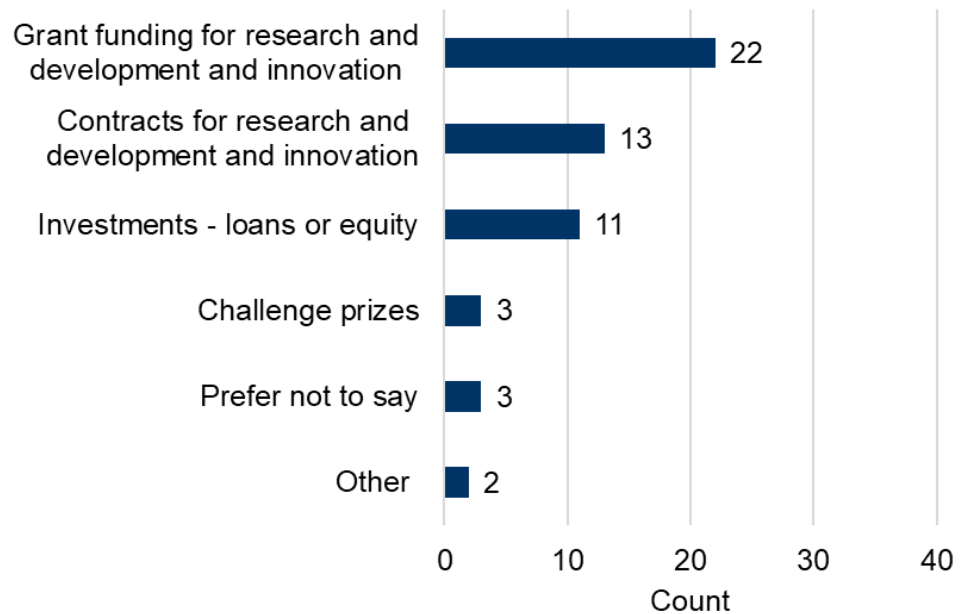
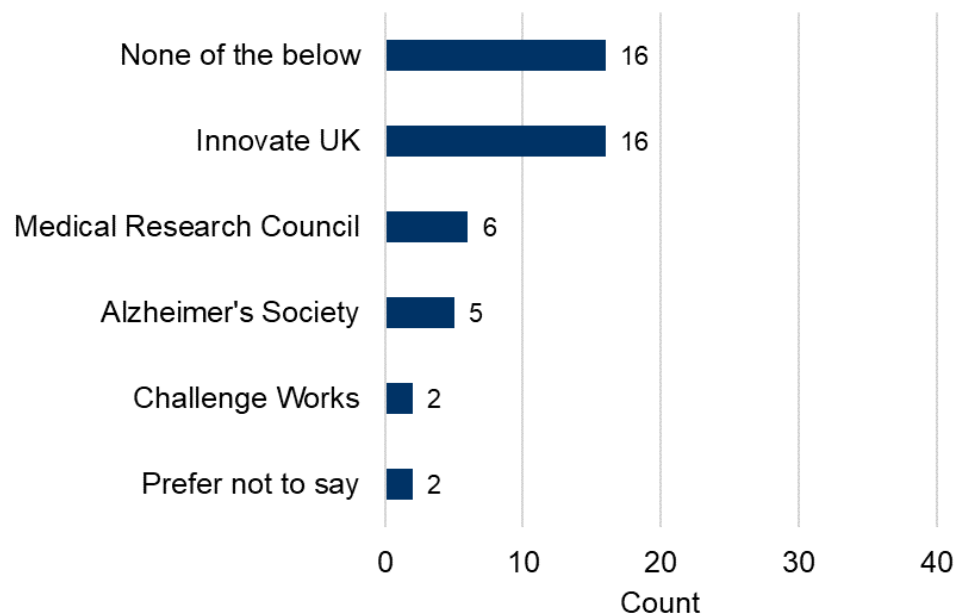


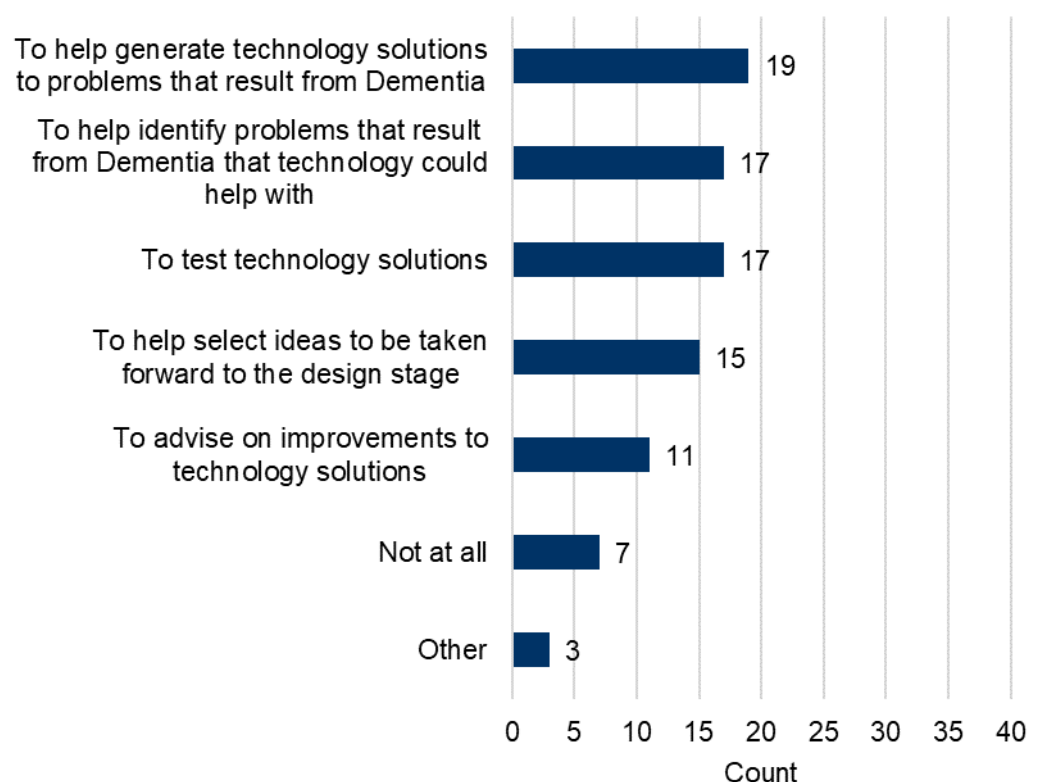
Figure 14: Have you or your team previously applied for funding from the following organisations? (Please select all that apply) (n=39)



### 8.2.2 Previous experience of co-design and involving those with lived experience in the application

The majority of respondents (n=33, 83%) indicated they had some previous experience of working with people affected by dementia to co-design or develop new technology (Figure 15). Seven (17%) respondents had not previously worked with people living with or caring for someone with dementia, five of whom are Awardees.

Figure 15: How have you previously worked with people living with dementia or caring for someone with dementia to co-design/develop new technology? (Please select all that apply) (n=40)



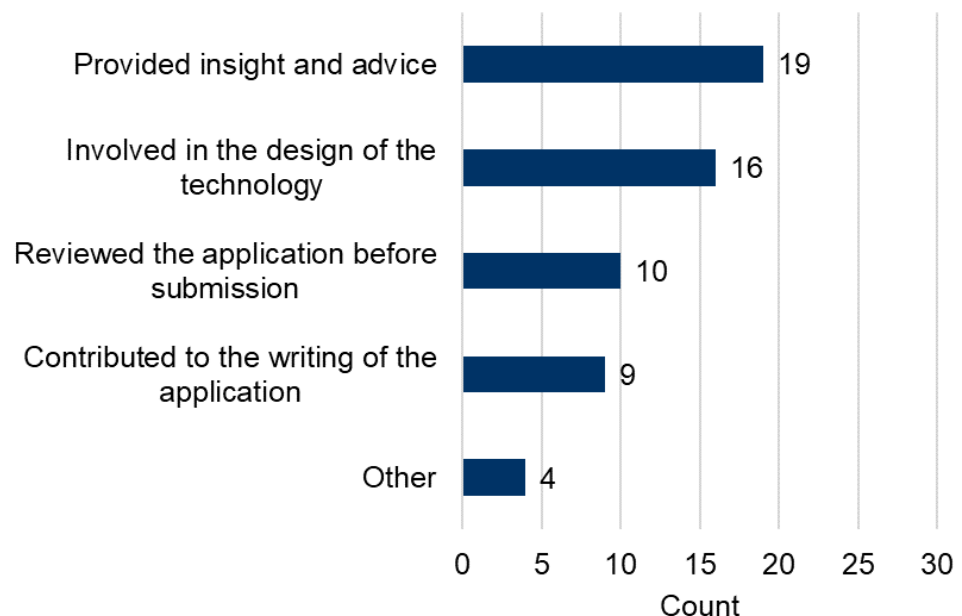
27 (68%) respondents involved people affected by dementia in their application, 14 of whom are Awardees. As seen from Figure 16, most respondents (n=19, 70%) gained 'insight and advice' from people living with dementia or caring for someone with dementia during their application to the LPoD. Several respondents (n=16, 59%) also involved people affected by dementia in the 'design of the technology'. This suggests that many applicants were already involving the target cohort at an early stage of the development of their solution, however, some may have had less input.

22 (81%) of the respondents who involved people affected by dementia in their application reported benefits of doing so, with only five (19%) reporting no benefits. In open text questions, most respondents who reported benefits highlighted how gaining insight from people with lived experience provided them

with knowledge and improved their understanding of challenges faced by people living with dementia. Some respondents also described the usefulness of receiving feedback from people affected by dementia on their solutions so they could identify and work on areas for development.

Of the 27 respondents who involved people affected by dementia in their application, six (22%) reported experiencing challenges, with three of these responses being from Awardees. Some of the reasons given were related to the difficulties in accessing and recruiting people affected by dementia and the extra time and resource needed. One respondent described people affected by dementia as a “closed community” and “it is difficult to get strangers [users] to trust you [applicants] and lend you their time”.

Figure 16: How were those living with dementia or caring for someone with dementia involved in your application for the Longitude Prize on Dementia? (Please select all that apply) (n=27)



### 8.3 Provision of information about the Prize

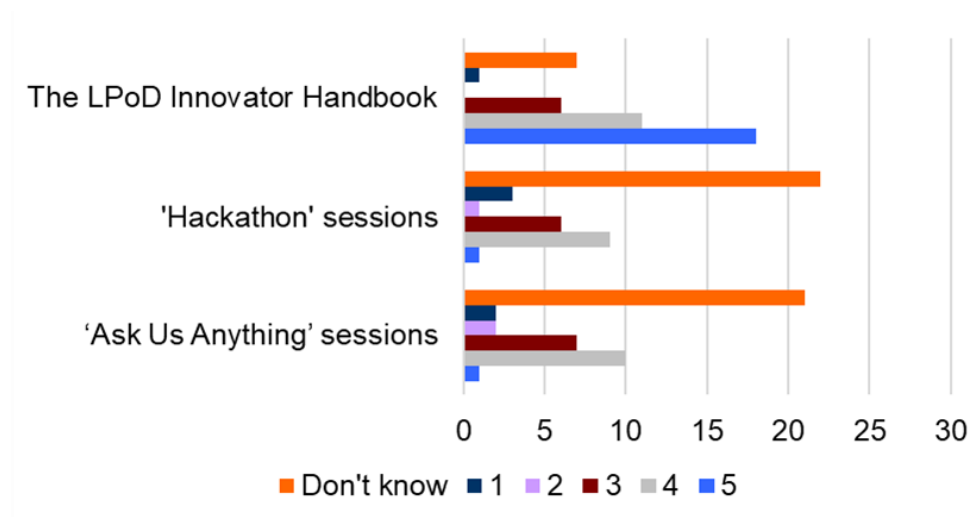
Most respondents (n=29, 81%)<sup>13</sup> that rated the LPoD Innovator Handbook indicated it was good/very good (Figure 17). However, a few indicated they were not able to rate this. It may be that some teams either did not access it or the survey was completed by a member of the team who did not see the Handbook.

Similarly, several respondents did not rate the ‘Hackathon’ sessions or ‘Ask Us Anything’ sessions, experience with these were explored with further questions presented in Section 8.3.1 and 8.3.2. The apparent limited awareness of these

<sup>13</sup> This is the percentage of those who gave a rating, therefore excluding those who indicated ‘don’t know’.

resources may indicate that more communication and advertisement of the sessions to potential applicants was needed.

Figure 17: On a scale of 1 to 5, where 1 is very poor and 5 is very good, how would you rate the following elements of the Longitude Prize on Dementia so far? (n=43)

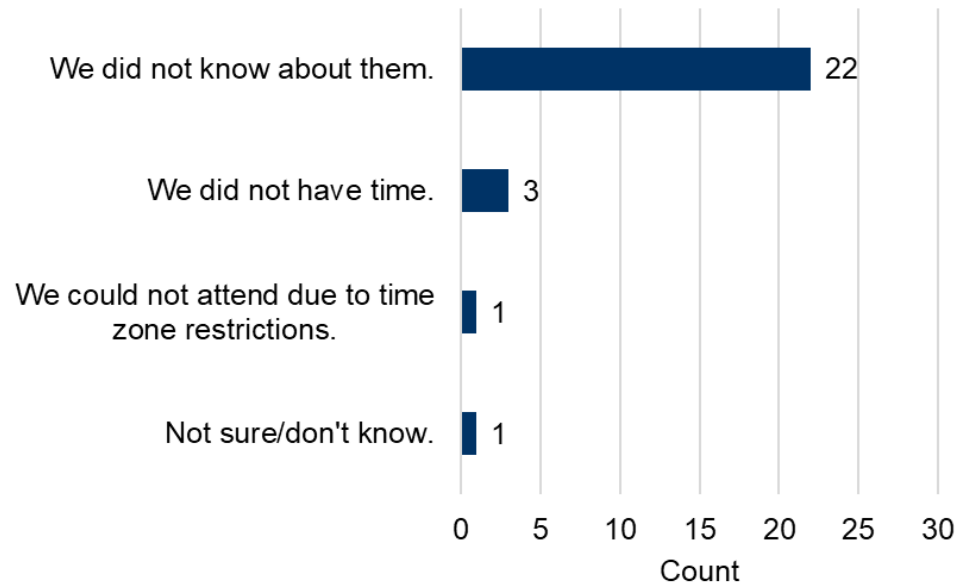


### 8.3.1 Views on 'Hackathon' sessions

28 (65%) respondents did not attend a 'Hackathon' session and 22 indicated this was because they did not know about them (Figure 18).

However, 15 (35%) respondents attended a 'Hackathon' session, 10 of whom are eventual Awardees. All attendees indicated that the timing of the session was appropriate for informing their application.

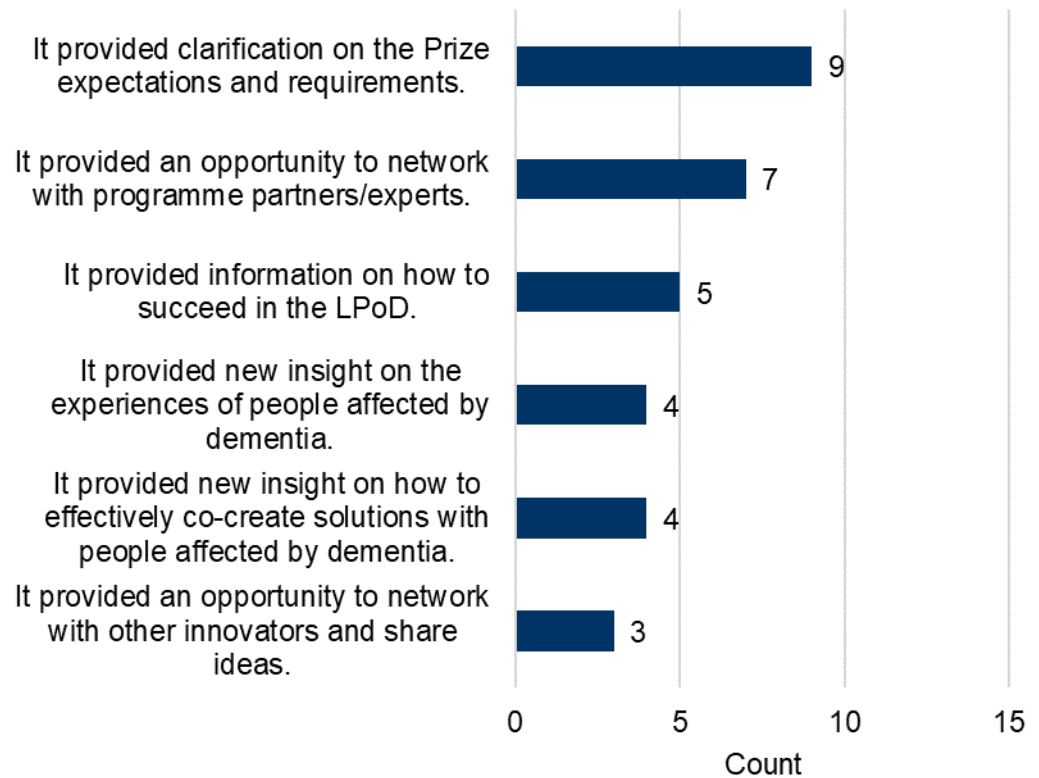
Figure 18: Please select the most appropriate explanation for why you or another member of your team did not attend any of the 'Hackathon' sessions (n=28)



12 (80%) attendees also found the session helpful for informing their application to the LPoD. Respondents were asked to indicate on a multiple-choice question the ways in which the session was helpful and were asked to select all that apply. Figure 19 shows that most respondents (75%) reported finding the 'Hackathon' sessions helpful for 'providing clarification on the LPoD expectations and requirements'. It is unclear whether less frequently endorsed statements were not selected because sessions did not achieve this, or simply because respondents did not feel this was something needed or they were already confident in this area (e.g., already had insight on the experience of people affected by dementia). As all these respondents indicated the session was helpful, we can likely presume the latter may be true.



Figure 19: In what ways was the 'Hackathon' session helpful for informing your application? (n=12)

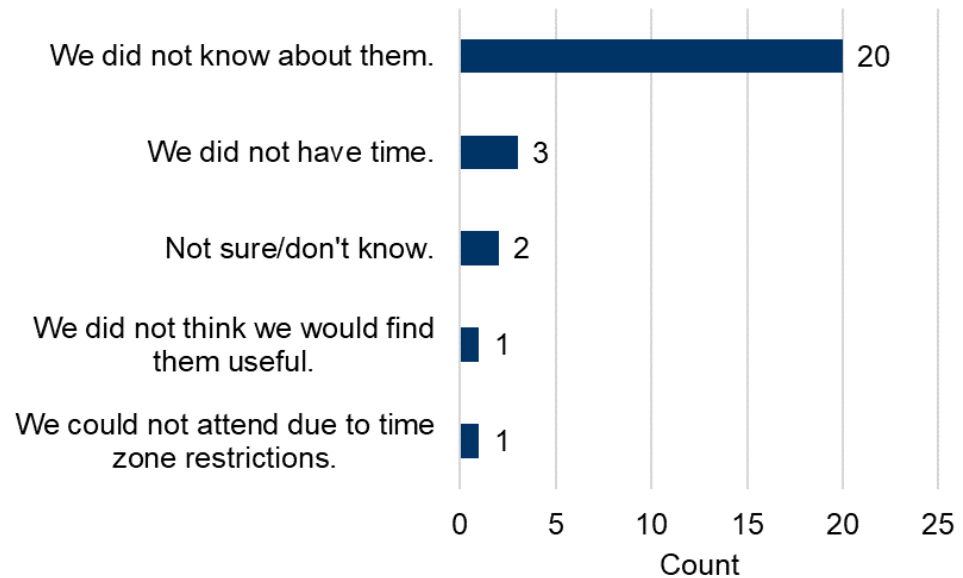


Out of the three applicants who reported not finding the 'Hackathon' session helpful, two were unsuccessful applicants and one was an Awardee. One unsuccessful respondent selected all of the reasons for why they did not find the 'Hackathon' session helpful (opposite statements to those outlined in Figure 19). Meanwhile, one other unsuccessful applicant reported finding the session unhelpful due to it 'not providing sufficient information to succeed in the LPoD application'.

### 8.3.2 Views on 'Ask Us Anything' Sessions

Of 42 respondents, 27 did not attend an 'Ask Us Anything' session, the majority of whom (74%) expressed this was because they did not know about them (Figure 20). In open text responses a few respondents felt that both the 'Hackathon' and 'Ask Us Anything' sessions could have been communicated and publicised better to reach more people.

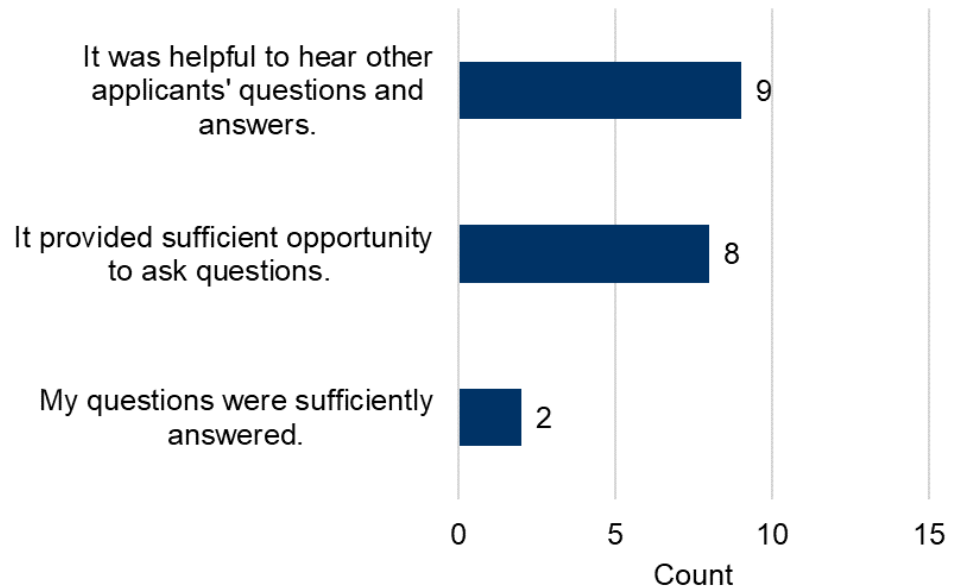
Figure 20: Please select the most appropriate explanation for why you or another member of your team did not attend any of the 'Ask Us Anything' sessions (n=27)



15 (36%) respondents attended an 'Ask Us Anything' session; nine of whom are Awardees. Most attendees (80%) found the timing of the sessions to be appropriate to inform their application. Of the three who indicated that the timing of sessions was not appropriate, two are Awardees. Open text responses from two Awardees indicate (a) they would have preferred a session earlier in the calendar because of the holiday season and (b) they would have found it helpful to have one-to-one sessions because they did not feel comfortable asking some questions in a group setting.

The majority of attendees (73%) also found the 'Ask Us Anything' session helpful for informing their application. Most attendees (82%) found it helpful to hear other applicant's questions and answers and many (72%) believed the session provided sufficient opportunity to ask questions (Figure 21). As these respondents had indicated sessions were helpful, we might assume that few respondents had questions themselves rather than their questions were not sufficiently answered.

Figure 21: Why was the 'Ask Us Anything' session helpful for informing your application to the Longitude Prize on Dementia? (Please select all that apply) (n=11)



Four (27%) attendees did not find the 'Ask Us Anything' session helpful for informing their application, two of whom are Awardees. On the multiple-choice question, three believed their questions were not sufficiently answered; two felt it did not provide sufficient opportunity to ask questions and two felt it was not helpful to hear other applicants' questions and answers. One Awardee selected 'other' but did not provide further information.

### 8.3.3 Clarity of the LPoD purpose and requirements

Participants were given a brief outline of the LPoD purpose and requirements, taken from the Innovator Handbook, and were asked if these had been clear at application. The majority of respondents indicated that the purpose and requirements were clear. Open text responses indicated this was aided by information provided online via the LPoD website and resources such as the LPoD Applicant Handbook.

As shown in Figure 22, of the 38 (82%) respondents that found the LPoD purpose to be clear, 28 (74%) provided additional information for their answer. For example, one respondent wrote:

*"The users, the end impact, the method of working with and for people living with dementia, while leveraging AI to do so, were all very clear."*

Awardee, CB LPoD Applicant Survey

Of the four (9%) respondents who found the purpose 'somewhat clear', two provided further information indicating that: (a) it was difficult to understand whether or not their innovation should be based on previous data and technology

and (b) an interest in expanding the scope of the Prize to include assistive and preventative technologies for early-stage dementia. All four (9%) respondents who did not find the purpose clear, found the guidance “*vague*” and indicated it could have been explained further. A respondent provided feedback on the purpose, stating how it was clear, but they found the scope rather large. This respondent explained:

*“On the plus side this gives tremendous space for creative and entirely innovative thinking but on the downside creates some problems for those of us - my team - who are starting from scratch with their innovation.”*

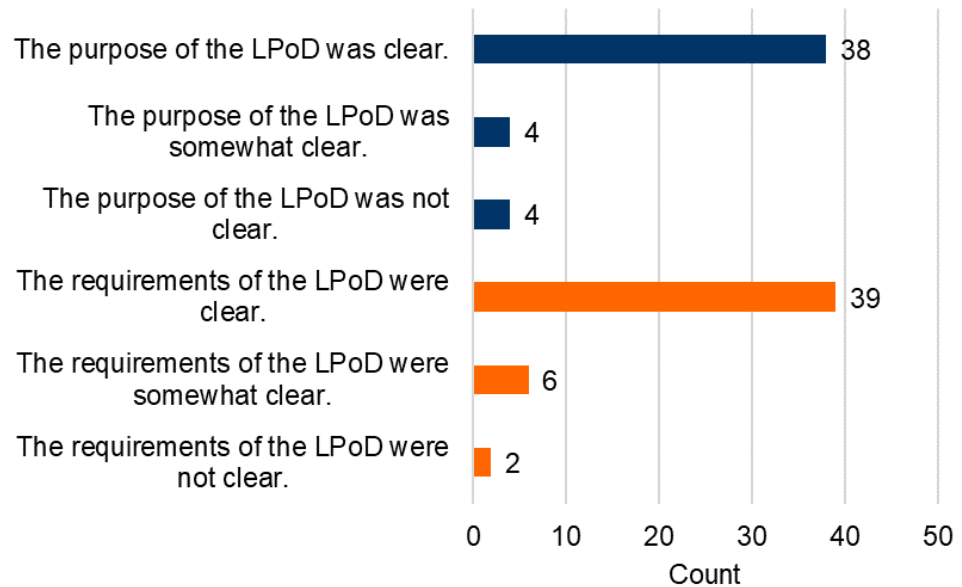
Awardee, CB LPoD Applicant Survey

Similarly, the requirements of the LPoD were found to be clear by 39 (83%) respondents. Some respondents reported this was a result of the way information was shared through various channels with applicants. Several found the Innovator’s Handbook and LPoD website helpful for clarifying requirements. For example, applicants found the description of the type of organisations who are eligible to apply as helpful.

Six (13%) respondents found the requirements of the LPoD to be ‘somewhat clear’. A respondent expressed that it would have been helpful to have more clarity on the stage at which the solution should be in order to apply (e.g., idea stage, prototype stage, pre-launch, launch). A couple of respondents felt the co-development aspect of the Prize was ambiguous and would have liked more detailed information.

Two (4%) respondents found the requirements to be unclear and described them as “vague” and indicated that, although the application was open to individuals, an unsuccessful applicant explained that the “*questions assumed an organisation/company [were applying] and were structured as such*”.

Figure 22: Was the purpose of the LPoD clearly outlined prior to application? (n=46) and Were the requirements of the LPoD clearly outlined prior to application? (n=47)



## 8.4 Application

The application itself and the various elements of the application was generally rated positively by respondents.

### 8.4.1 Overall experience of applying to LPoD

Respondents rated their overall experience of applying to the LPoD on a scale from 1, very poor, to 5, very good. Many were positive about their experience, with 28 (70%) rating it as good/very good. Only three (8%) unsuccessful applicant respondents rated their overall experience as poor/very poor (Figure 23). Nine unsuccessful applicants rated their overall experience at 3, which can be interpreted as a neutral response.

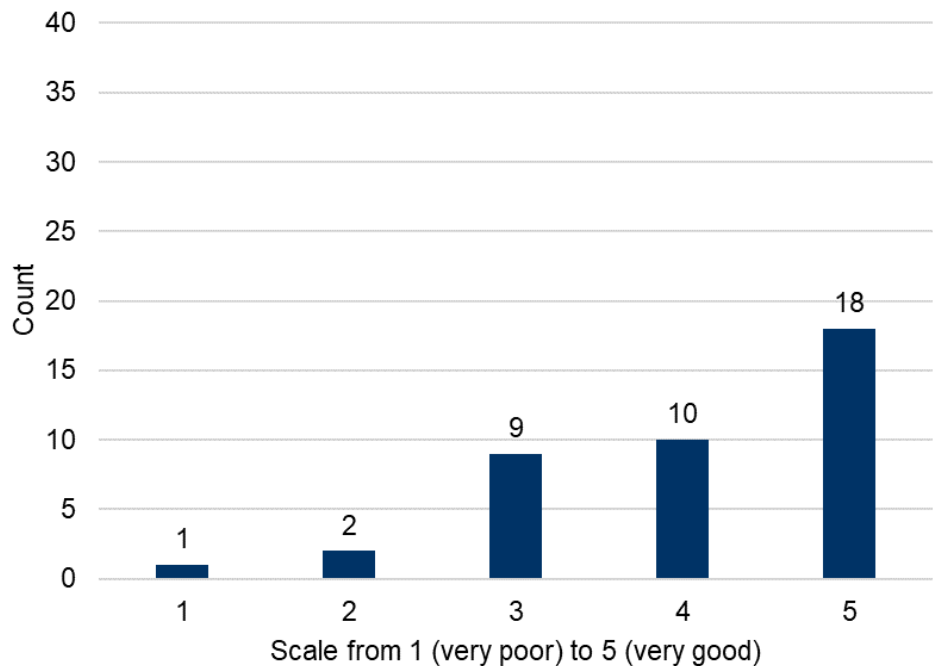
30 respondents (75%), including the 21 Awardees, also indicated they would apply to a similar Challenge Prize in the future if there was a relevant opportunity to do so, nine (22%) indicated 'Maybe', and just one (3%) reported that they would not. The one respondent who reported they would not apply to a similar Challenge Prize, explained they would have preferred for the judging panel to have *"more clinical innovators in tech, i.e., practicing clinicians"* (Unsuccessful applicant).

In responses to other open text questions, many applicants expressed feeling positive about their experience, and although most of these comments were from Awardees, an unsuccessful applicant commented:

*“Opportunities like this give those without the financial backing, but with brilliant ideas, a chance to ‘get in the game!’”*

Unsuccessful applicant, CB LPoD Applicant Survey

Figure 23: Overall, on a scale of 1 to 5, where 1 is very poor and 5 is very good, how would you rate your overall experience of applying to the Longitude Prize on Dementia? (n=40)



#### 8.4.2 Views on different elements of the application

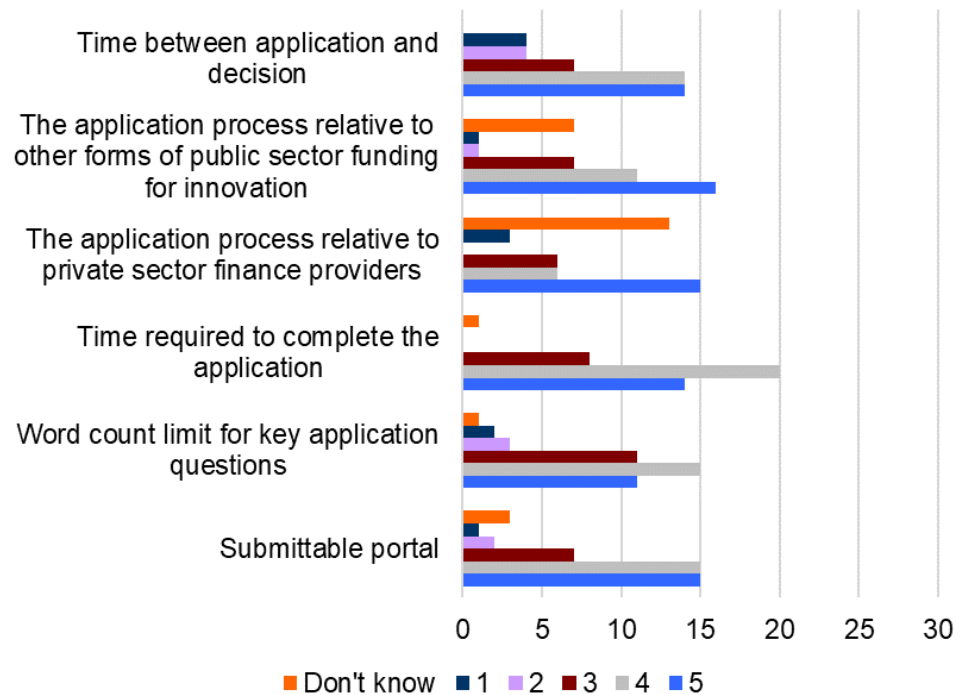
The vast majority of respondents rated elements of the LPoD application positively, in particular the ‘Submittable portal’ and the ‘time required to complete the application’ (Figure 24).

Whilst most rated the ‘word count limit for key application questions’ and ‘time between application and decision’ positively, slightly more applicants indicated a neutral or poor/very poor experience with this. Applicants were initially told in the Applicant Handbook that they would hear about the outcome of their application in April 2023; however, it was not until May 2023 that this information was received, with the public announcement made on 20<sup>th</sup> June. This may partly explain why a few more applicants rated this as neutral or poor.

In the open text responses, most applicants reported a positive experience and found the application simple, however, a few applicants (n=3) found the time it took to prepare and submit applications for an initial entry stage to be rather long. One unsuccessful applicant commented that they had to spend over two months of full-time work on only the initial entry stage; this respondent and one other suggested that they would have found a ‘pitch presentation’ a helpful way to present their innovation and this would have reduced the time they spent on the

application. The word count limits on the application form were also a challenge that a few applicants highlighted.

Figure 24: On a scale of 1 to 5, where 1 is very poor and 5 is very good, how would you rate the following elements of the Longitude Prize on Dementia so far? (n=43)



## 8.5 Communication

Figure 25 shows respondents' ratings of various elements of the communication during the LPoD application process. The communication between Challenge Works and applicants to the LPoD may be an area that would need some minor improvements for any future Prizes; however, it should be noted that it is possible that some survey respondents may have been biased in their ratings due to being unsuccessful at progressing to the Discovery Awards.

A substantial proportion of respondents who gave a rating (n=17, 41%)<sup>14</sup> indicated that the 'transparency of the decision-making process and feedback' was poor/very poor. Responses to open text questions indicated that some applicants were dissatisfied with the amount of feedback and the length of time it took to receive feedback on their application. 15 of the 17 who rated this element poorly were unsuccessful applicants.

While details of the criteria that applicants would be scored against were available in the LPoD Applicant Handbook, greater clarity on how these

<sup>14</sup> This is the percentage of those who gave a rating, therefore excluding those who indicated 'don't know'.

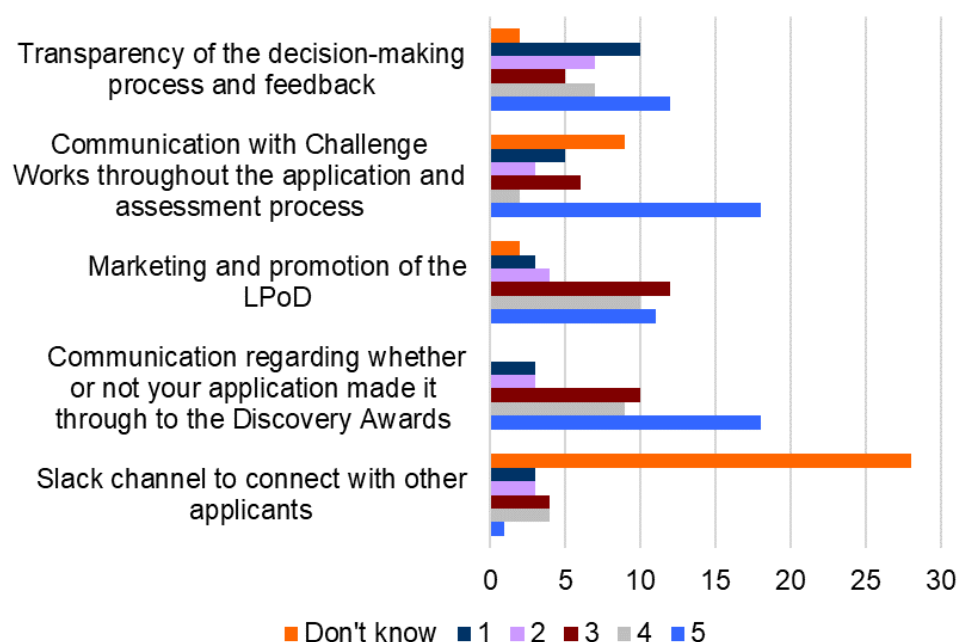
applications would be scored against these and how Awardees were ultimately chosen may be beneficial.

Most respondents (67%) indicated 'don't know' when asked to rate the 'slack channel to connect with other applicants', of the 15 that gave a rating six (40%) rated it as poor/very poor. Like the limited awareness of the 'Hackathon' and 'Ask Us Anything' sessions, the availability of the Slack channel may not have been communicated widely enough. This was reiterated by a few in open text responses, for example an Awardee explained they were unable to provide an accurate rating for the Slack channel because they have since either forgotten "or they never really stood out to me [respondent], or they were never communicated to me [respondent]".

Whilst several respondents indicated that they did not know about the 'Hackathon' and 'Ask Us Anything' sessions, it is possible applicants may have known about the Slack channel but decided that it was not something they wished to use. It is unclear whether this would be a valuable resource to carry forward for applicants to any similar future Prize, as some respondents reported not being aware of the Slack channel. If it is used in future, its availability may need to be communicated more widely.

20 (59%) respondents rated 'communication with Challenge Works throughout the application and assessment process' as good/very good. However, six (18%) were neutral and eight (24%) rated it as poor/very poor. Seven of the eight who rated this poorly were unsuccessful applicants.

Figure 25: On a scale of 1 to 5, where 1 is very poor and 5 is very good, how would you rate the following elements of the Longitude Prize on Dementia so far? (n=43)





## 8.6 Initial entry and Discovery Awardee experiences

This survey took place approximately two months into the Discovery Awards phase and asked Awardees to rate their experience of the 'Launch event', 'needs assessment' and 'support to develop their technology solution'. Whilst most rated these activities positively, a proportion indicated a poor experience (Figure 26).

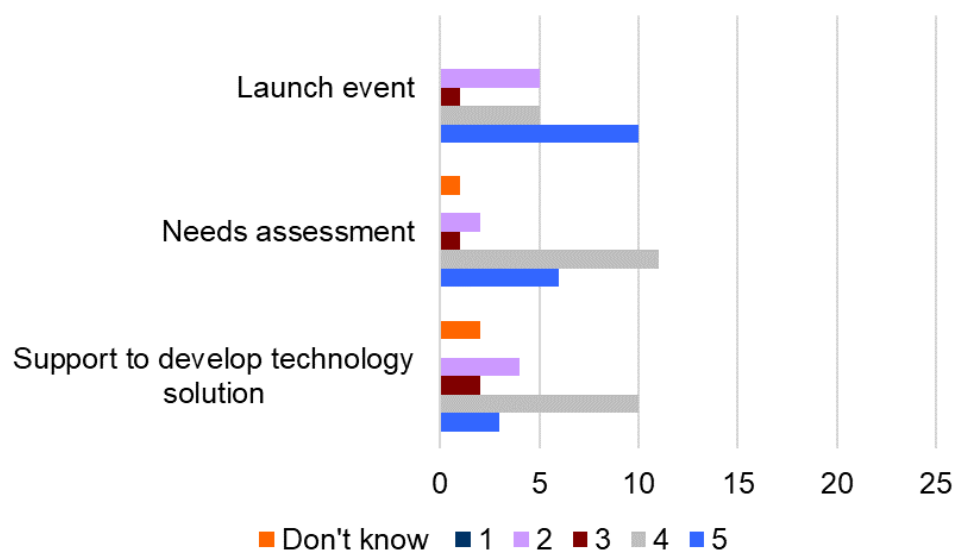
The 'Launch event' was rated as good/very good by 15 (72%) Awardees who provided a rating, however five (24%) rated this as poor. In the responses to the open text questions, a few Awardees indicated that the 'Launch event' could have provided more detail and information on the plan for the year ahead and how to access help.

While the needs assessment has been rated as good/very good by 17 (85%) Awardees who provided a rating, one respondent expressed that they would have found it helpful to have one-to-one meetings to identify specific needs.

Similarly, a substantial proportion (69%) of Awardees rated 'Support to develop technology solution' positively, although four (21%) rated this poorly, with comments indicating a desire for more support, for example with accessing the target cohort. As previously discussed, three Awardees reported challenges in involving people affected by dementia in their application and an initial review of quarter one reports indicates that several Awardees have struggled with this. The co-design element of the LPoD may be a particular challenge for those newer to the field of dementia care, and therefore, represents an area where Awardees likely need additional support in order to develop their solutions as intended.

Experiences of the initial entry period will be explored further in interviews with the Awardees.

Figure 26: On a scale of 1 to 5, where 1 is very poor and 5 is very good, how would you rate the following elements of the LPoD so far? (n=21)



## 9 Appendix D – Judging criteria

The following criteria, taken from the LPoD Innovator Handbook, were used by judges to decide on which applications should be taken forward to the Discovery Awards:

- **Breakthrough innovation that helps people live independently for longer:**
  - Demonstrates significant advances in technology or the use of technology, and design for people living with dementia.
  - Demonstrates, through meaningful engagement and co-design, that the application objectives show insight into the needs and desires of people with dementia.
  - Demonstrates potential to deliver transformative impact in one or more of the issues that compromise the continued independence for people living with dementia.
- **Adapting to user needs to deliver tailored support, contributing to wellbeing and quality of life:**
  - Learns from and adapts to the individual and changing needs of a person with dementia, compensating for their condition as it progresses.
  - Goes beyond basic data security standards to reassure users and communicate transparently about how data is used and stored, and minimises bias in the data and models used and produced.
  - Solution is easy and enjoyable to use and effective for a broad user-base of people with dementia, having been tested with different demographics and backgrounds to reduce bias, as well as people at different stages of the disease. It should interact with them in a way that is ethical and takes into consideration users' vulnerability.
- **High standards of technical excellence:**
  - There is a strong evidence base demonstrating the suitability and reliability of the technologies underlying the solution.
  - Where appropriate, the solution provides open data, interoperability and/or application programming interfaces (APIs), as well as compatibility with different hardware, to help integrate it with other tools and services that users and their carers may use and mitigate against obsolescence.
- **Credible path to sustainability and scale:**
  - There is a clearly demonstrated route to market (in their chosen market), with consideration given to how their entry will be scaled and made financially accessible to a broad cross-section of people living with dementia, whatever their circumstances.
  - The team has the capabilities, skills and experience required to deliver the proposed technology, service and business model.



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