Brain Health Technology & Data Challenge

**Expression of Interest Application Form**

The Data Lab and Digital Health & Care Innovation Centre Challenge will focus on four connected themes, with data and data science expected to be a key part of all projects. The challenge will help to stimulate new or support existing collaborations between industry and academia, exploring the feasibility of providing solutions that could help address four core themes \*:

* Adaptive technologies, precision medicine and interventions
* Technologies to enhance brain health
* Assistive technologies
* Co-design and co-production for brain health technologies

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| **Reference Number** | (internal use) |

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| **1. Contact Details** | |
| Organisation Name and Company Number |  |
| Organisation Address |  |
| Nature of business  (e.g. software, health, technology) |  |
| Contact Name |  |
| Position |  |
| Mobile Number |  |
| Email |  |
| Date completed |  |
| Completed by |  |

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| **2. Challenge Question** *Please outline the thematic area the project is focused on and the challenge question you wish to support and collaborate on (300 words max)* |
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| **3. Brief Description of Challenge and Project Overview (300 words max)** |
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| **2. What skills, capabilities and competencies does the company bring to the collaboration on this challenge/ project? (300 words max)** |
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| **3. Work packages** *Please briefly outline which work packages you are capable of supporting (you may list as many as you like*) |
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| **4. How would you approach the above work package(s)?**  *Please detail any data required, its accessibility, the methodology and any ethical challenges.* |
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| **5. What skills gaps are you aware of that you need for this collaboration that an academic partner will provide*?***  *Please note if you don’t currently have a suitable academic partner and require TDL and DHI supporting in finding one* |
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| **7. Project partners/ stakeholders**  *Please note any organisations or parties who will support project delivery or who would support its development and commercialisation* |
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| **8. Project Timescales & Deliverability**  *Please briefly detail resource availability and a draft delivery timetable for your proposed project. Note: we expect projects to have funding approval by April 1, 2023* |
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**ADDITIONAL PROJECT INFORMATION:**

All industry applicants, potentially supported by an end users or health sector partners, will be required to demonstrate match funding for projects. For SMEs this means 25%, and for large companies 50%, of total academic costs capped at £19,999 provided by The Data Lab/ DHI), with additional contributions made on an in-kind basis (e.g. people’s time, datasets, storage). The Data Lab’s funding will only be paid to cover the costs of University Partner(s) involved in a project. Up to 5 projects will be awarded, depending on the amount requested for suitable applications.

Judging Criteria: Applications will be reviewed in two stages, firstly by a joint TDL and DHI panel which will consider the level of novelty and innovation related the thematic area and the use of data science, the project’s impact (economic and social) and commercial feasibility, as well as the team’s capability ability to execute; and secondly by The Data Lab’s CEO.

Complete and submit the EOI application form by to: [Darran.gardner@thedatalab.com](mailto:Darran.gardner@thedatalab.com)

**Challenge Call Timeline**

* Challenge launch and call for EOIs: **Nov 2, 2022**
* Deadline for submission of completed EOI form: **5pm Dec 7, 2022**
* Confirmation of approval to move to full funding application: **Dec 16, 2023**
* Deadline for full funding applications: **Feb 13, 2023**​
* TDL and DHI Review team decisions communicated to applicants: **March 3, 2023**
* Project start dates will vary (from April 1, dependent on legals and project team capacity)
* All projects to be completed by **Sept 1, 2023**

**Background to Challenge:**

The Challenge Call has been developed in response to the summer 2022 workshop organised by the Scottish Dementia Research Consortium (SDRC), the DHI and Brain Health Scotland. The resulting White Paper (‘**Paving the way towards the future of technologies for brain health and dementia prevention in Scotland**’) highlighted the need for collaboration and co-production across multi-disciplinary teams – including expertise in cognitive impairment, ethics, industry, government agencies, patients and care providers.

There was also a clear need identified to capitalise on the capabilities of modern technology and data science (e.g. AI and machine learning) and draw more innovative companies into Scotland's Healthy Ageing Innovation Cluster. Effective collaboration was recognised as being the critical factor in addressing the priorities sets by the Scottish Government. Aligned with the White Paper, The Data Lab and DHI challenge funding will focus on four connected themes:

* Adaptive technologies, precision medicine and interventions. This theme will focus on technologies that hold to potential to adapt to the changing needs of those affected by neuro-progressive diseases. These are essential for person-centred assessments and interventions. Such adaptive capabilities are envisaged to equip people are risk of dementia with more resilience to the course of this long disease process
* Technologies to enhance brain health. The advent of VR/AR, Wearables/Sensors, Cognitive Prosthetics, Reminiscence Technologies, and other technologies is creating unprecedented opportunities to move assessments and interventions from the lab to the real world. Such technologies retain a great deal of control regarding how experiences can be directed and measured while achieving greater ecological validity
* Assistive technologies. There is a growing interest in technologies that can support people with disabilities to live safely and independently whether at home or in care facilities. We are witnessing a rapid growth of Ambient Assisted Living, Smart Environments, Living Labs, Tele-presence and Tele-care, Cognitive Robotics
* Co-design and co-production for brain health technologies. The Scottish Brain Health and Dementia Research Strategy aims to encourage a paradigm shift whereby researchers and members of the public come together to become co-designers, co-producers and co-beneficiaries of research. This paradigm shift is urgently needed in the field of healthcare technologies

**Eligibility criteria for Innovation Projects**

* Projects are expected to be 3-6 months in length
* Project consortium should be made up of end user/s, SME and Scottish academic partner; the lead applicant will be a Scottish-based SME
* The Data Lab will fund up to 75% of total academic costs (up to a maximum of £20k). Participating companies will be expected to cover the remaining academic costs through a cash contribution (e.g. 25% for SMEs, rising to 50% for large companies). The applicant will also be expected to make in-kind contribution of time, data, etc)
* The Data Lab funding will only be paid to cover the costs of University Partner(s) involved in the project.
* Projects should have a clear potential for further funding and development (The Data Lab and DHI can help identify follow-on funding routes)