

CALL FOR ACADEMIC PROPOSALS: Evaluation of a Medication Dispensing Robot in Scottish Care Services

13/03/2026

Introduction

This is an academic call for proposals to undertake an independent evaluation of the E300 Medication Dispensing Robot (MDR) which has been developed by Evondos. (<https://www.evondos.co.uk/>) The purpose of the work is twofold: to evaluate how this digital device impacts on medication adherence, staff resources and outcomes for people; and to explore how data generated by MDRs can be used for care planning within the Scottish health and social care context, and/or by the national Telecare Alarm Receiving Centre (ARC). It is anticipated that the evaluation will include mixed methodology such as surveys, secondary data analysis, ethnographic and observational methods, qualitative interviews and focus groups.

The Digital Health & Care Innovation Centre (DHI) is awarding an academic grant **up to £40K** for this piece of work. We expect interested academic institutions to provide us with a brief response document (maximum 10 pages) clearly setting out their methodological approach and detail of associated costs. Please note, applicants may provide additional information in appendices, but only the application will be scored.

Background

Evondos MDR

Therapeutic adherence represents one of the greatest challenges facing the health and care system. The World Health Organisation defines medication adherence as “the extent to which a person’s behaviour - taking medication, following a diet, and/or executing lifestyle changes - corresponds with agreed recommendations from a health care provider” (WHO, 2003, p. 3). Approximately 50% of people with chronic diseases living in developed countries do not take their medication as prescribed.

The E300 MDR was developed by Evondos to support the administration of medication to older adults and individuals living with chronic conditions in homecare settings. The system uses mechanically packaged multidose medicine pouches to improve medication adherence and to support the work of care staff. The E300 MDR is a Class I medical device that conforms to the EU Medical Device Regulation and is certified to the ISO 13485 and ISO 27001 standards.

The National Telecare Alarm Receiving Centre

The national Telecare Alarm Receiving Centre (ARC) - <https://www.digitaloffice.scot/projects/shared-alarm-receiving-centre-platform-1> - is undergoing a major transformation, moving from an analogue to a digital system. The new system allows for collecting and analysing data from multiple devices and sensors, including both commercial and medical products.

Currently, the data collected by MDRs support health and social care services in three key ways: to monitor medication adherence on a day to day basis, when doses were missed the system triggers escalation and follow up actions; to provide long-term adherence trends, which offer important insight for assessments and re-assessments; and to improve understanding of client needs through ongoing data capture. The new digital ARC platform also enables the collection of passive behavioural data (sleep, toilet use, water consumption) and supports more extensive and sophisticated data analysis. The MDR trial presents several distinct opportunities to learn about the functioning of the new ARC system and the system’s integration with external devices (e.g., the E300 MDR).

In addition, the MDR provides opportunities to gather richer information about clients (e.g., through video link), which could lead to timely interventions and potential for substantial savings.

Proof of Concept Implementation Trial

DHI aims to conduct a Proof of Concept (PoC) implementation trial of the MDR to evaluate how data generated by it can be used for care planning and/or monitoring, and its impact on service delivery and patient's quality of life.

Within Scotland's policy context, the MDR has the potential to contribute to the following key strategies:

	Name	Website
1	The National Telecare Programme – Digital Transition and National ARC	https://www.digitaloffice.scot/projects/shared-alarm-receiving-centre-platform-1
2	The Digital Health and Care Strategy and its Delivery Plan	https://www.gov.scot/publications/care-digital-age-delivery-plan-2025-2026/
3	The Health and Social Care Service Renewal Framework	https://www.gov.scot/publications/health-social-care-service-renewal-framework

The primary objectives of the PoC evaluation will be to assess whether - and how - the introduction of a MDR can lead to:

- health and social care services using data generated by a MDR for care planning
- data being embedded and utilised within the ARC
- enhanced health and wellbeing of individuals and promote independent living
- reductions in staff hours, staff travel requirements, associated costs, and other time related pressures
- empowerment of patients and family members to self-manage their medication and support improvements in medication adherence
- reduction in health interventions necessitated by medication errors, including avoidable hospital admissions

The MDR will be deployed in at least two HSCPs in Scotland, and a minimum of 40 individual adults will be recruited across the HSCPs who:

- live in community settings (excluding care homes; supported living arrangements may be considered)
- are aged 18 and over
- have at least one chronic health condition
- use polypharmacy
- have relatively stable medication treatment requirements
- require at least daily visits from a health or social care provider to support their medication use.

The PoC implementation trial is supported by a Steering Group, which consists of representatives from DHI, Scottish Government, and the Local Government Digital Office. The PoC implementation trial also aligns with strategic aims related to polypharmacy and medication adherence. No regulatory or legislative barriers have been identified that would prevent delivery of the trial.

This piece of work is expected to draw upon both data generated through the PoC implementation Trial, and data collected directly by the academic research team (including insights from patients, family members or carers, social care managers, and health and social care staff).

Work Packages

There are three key phases to the evaluation:

- **Work Package 1:** This stage comprises the review and refinement of the PoC implementation trial protocol.
- **Work Package 2:** This stage involves the development of a comprehensive research plan for evaluating the PoC implementation trial - including the specification of the research design and the selection of appropriate outcome measures. Work Package 2 shall result in a detailed, step-by-step plan covering data collection, data analysis, and dissemination processes, taking into account ethical and regulatory requirements, practical considerations, and overall feasibility. The plan must also include a data management plan, data protection plan, risk assessment, timeline, and contingency plan.
- **Work Package 3:** This stage consists of executing the research plan developed under Work Package 2, including the completion of all data collection, data analysis, and dissemination activities.

We expect interested academic institutions to provide a brief response document (maximum 10 pages) clearly setting out their approach to this piece of work and detail of associated costs. Please note, applicants may provide additional information in appendices, but only the application will be scored, with the exception of one-page CVs of the team, which can be attached and will be included in the scoring.

Eligibility to apply

The following eligibility criteria apply to this grant award:

- The applicant organisation must be a Scottish Higher Education Institution (HEI).
- Funds cannot be redistributed by the awarded party, except without express permission by DHI.
- Bids must be costed in line with the Higher Education Institution's bidding policies. DHI expects the HEI research office to be involved in communication.
- DHI expects bids to be costed at 80% Full Economic Costing.

Approach

HEIs are requested to identify their proposed methodologies as part of their submission. The approach to this piece of work has not been defined in advance - although it is expected to incorporate mixed methods - and it is envisaged that this will be refined in discussion between the successful academic institution and the Project Steering Group. The proposal should also describe what approaches might be taken to ensure the final report may be useful and will be appropriately disseminated both to the funder as well as relevant stakeholders.

Skills required

The HEI will offer, either directly, or through engagement with third parties, a combination of experience and expertise in the areas listed below:

- Service evaluation experience in a health and/or social care context;
- Options appraisal (ideally of health and care service models);
- Cost benefit analysis expertise; and
- A good understanding of the health and social care landscape in Scotland/UK.

Milestones, Deliverables and Timescales

We anticipate the commission milestones will follow the timescales set out in Table 1, although these can be discussed and agreed at the inception meeting with the appointed academic team:

Tender Process:	Date:
Issue call for bids	13 th March 2026
Deadline for submissions	6 th May 2026
Contract awarded	20 th May 2026
Inception meeting	27 th May 2026
Project milestones with deliverables:	Date:
Work package 1 completion	30 th June 2026
Work package 2 completion	30 th July 2026
Work package 3 completion	27 th Nov 2026
Draft Evaluation Report acceptance	16 th Dec 2026
Final Evaluation Report acceptance, dissemination	29 th Jan 2027

Table 1: Project Timetable

Governance

A Project Steering Group with representation from DHI, Scottish Government, and Local Government Digital Office representatives will oversee delivery of this project. It will sign-off project deliverables and provide advice/support the addressing of key issues.

Management arrangements

The grant award process will be managed by DHI as the lead commissioning body.

DHI Lead Contact:

Jennifer Thomas, Research and Knowledge Management Officer: Jennifer.thomas@dhi-scotland.com.

Copyright

DHI will retain copyright of any outputs, partial or final, created as a result of the deliverables indicated in section 5, including reports, evidence collection instruments created for this purpose, presentations, etc.

Conflicts of interest

There will be a requirement to state no conflict of interest exists or declare any actual or potential conflicts of interest.

Budget

The total budget available for this project is **up to £40K**, including any relevant VAT. Phasing of payment is detailed in Table 2 below:

Milestone	Completion	Payment
Contract acceptance	20 th May 2026	50%
Completion of all 3 Work Packages	27 th November 2026	25%
Receipt of Final Report	29 th January 2027	25%

Table 2: Project Milestones

Response

You are invited to respond to this document with the following information, with max 10 pages of text:

- Your proposals for delivering on the requirements, scope, methods and deliverables described above. You should detail:
 - your understanding of the main issues to be addressed
 - how you intend to deliver on the requirements; and
 - the methodology you propose to use.
- The expertise and experience of the team undertaking the work, referencing the skills detailed in the ‘*Skills required*’ section of this document. This should include *one-page* CV[s] and statement of availability of the individual/s who will undertake the work. CVs can be attached into the application and will be taken into account in the assessment of applications.
- Brief summaries of similar work undertaken, including contact information (name and telephone number or email address) for at least one reference.
- Proposals should also detail all risks and constraints identified for this project, including an assessment of impacts and proposed mitigation actions.
- A realistic timetable of activities, including contingency management, to meet the timescales outlined in the ‘*Milestones, Deliverables and Timescales*’ section of this document.
- A breakdown of costs, including any expenses.
- An outline of anticipated ethical issues, including data protection and research governance.

Response proposals are to be submitted to research@dhi-scotland.com by **6th May 2026**. To assist with the completion of your response, you may contact Jennifer.thomas@dhi-scotland.com for further information. Additional information can be given in appendices, but only the application will be assessed, unless otherwise mentioned.

Evaluation

Proposals will be evaluated against each other in an objective manner by a team consisting of representatives from DHI and the Steering Group. The Evaluation Panel will score each Bidder’s response using the criteria shown in the table below. The Bidder(s) selected will be chosen based on the best value for money. This means suitable quality, delivery, level of risk and response to customer needs at best price.

Criteria	Description	Weighting
Understanding the purpose of the work, context and background and proposes a methodology that meets all the requirements of the tender specification	The proposal clearly demonstrates understanding of the context of this project, including the strategic and policy drivers. Proposal demonstrates that all the requirements of the specification have been addressed and understood and that the proposed methodology is appropriate and capable of successfully delivering all the required outcomes.	25%
Relevant skills and expertise of team to be appointed to deliver the project	Proposal demonstrates availability of the required combination of expertise and experience among team members to be appointed to the project.	20%
Experience and reputation in undertaking similar work	Proposal demonstrates evidence of previous work undertaken in the past 3 years <u>relevant to this project</u> including the names(s) of clients who can be approached for comments.	20%

Support of DHI Net-Zero emission targets	All work supported and funded by DHI should be fully committed to supporting the Scottish Government's target of Net-Zero emissions by 2045. The proposal should indicate how the team will minimise environmental impacts.	5%
Risk Management and Quality Assurance	The proposal provides evidence that the main risks involved with the project have been identified and adequately addressed. Details of the bidder's risk management and quality assurance methodology are also outlined.	5%
Timetable	The proposal provides a detailed timetable of events to ensure that deadlines can be met and explicitly identifies any contingency.	10%
Price	The proposal is competitively priced and represents good value in the context of the goods/services to be delivered over the life of the contract. Costs are clearly demonstrated and justified. Best value bids will demonstrate an appropriate combination of cost and quality.	15%

In the event of a number of proposals being received, short listed HEI's may be invited to provide a presentation to the Evaluation Panel or interview to demonstrate their understanding of the project. The following scoring convention will be used to assess each of the responses to the above quality questions:

Score	Descriptor
4	Excellent response - is excellent overall and will include a balance of completely relevant elements of the Contract as specified (but not limited to the specifications). The response is comprehensive, unambiguous and demonstrates a thorough understanding of the requirement and provides details of how the requirement will be met in full
3	Good response - is relevant and will include a balance of elements of the Contract as specified (but not limited to the specifications) The response is sufficiently detailed to demonstrate a good understanding and provides details on how the requirements will be fulfilled
2	Acceptable response - will include some elements of the Contract as specified (but not limited to the specifications) The response addresses a broad understanding of the requirement but lacks details on how the requirement will be fulfilled
1	Poor response - is partially relevant and will include few elements of the Contract as specified (but not limited to the specifications) The response addresses some elements of the requirement but contains insufficient/limited detail or explanation to demonstrate how the requirement will be fulfilled
0	Unacceptable - Nil or inadequate response Fails to demonstrate an ability to meet the requirement

The Evaluation Panel reserves the right to recommend that if the score for any one criterion is "0", that the Contractor not be recommended. That is, they reserve the right to veto a Contractor if it does not meet at all any one of the criteria.

References

World Health Organization (2003) *Adherence to long-term therapies: evidence for action*. Geneva: World Health Organization.