

CASE STUDY



Monitoring Officer Support for TUTTI TOOT LTD

Biomedical Catalyst Feasibility Competition 2023

Project Type:

Collaborative R&D

Project Duration:

1st Apr 2024 - 30st Dec 2024 (9 months)

Project Summery:

Tutti Toot Ltd developed a novel medical device – the Tutti Toot Trumpet – designed to gamify respiratory physiotherapy for children with asthma and related breathing pattern disorders. The project aimed to test the feasibility of this device, explore commercial potential, and evaluate its value proposition via a NICE META analysis. The work also involved PPIE (Patient Public Involvement and Engagement), clinician collaboration, app development, and musical track design for breathing retraining.

Client/Partner Background

Gilly Brunton served as the Innovate UK-appointed Monitoring Officer throughout the duration of the project, working across all three claim periods. Her role included overseeing progress, managing risk, guiding reporting standards, and providing strategic advice on project delivery and exploitation.

Monitoring Highlights

Period 1 (April - June 2024):

- / Successful completion of the NICE META Tool and interview.
- / Initial clinician engagement (3 interviews conducted).
- / Development of early-stage music tracks (2:2 and 1:3 ratios).
- / Stratification framework for PEFR (Peak Expiratory Flow Rate) identified.
- / Some slippage in cost forecast due to delayed subcontractor start and unplanned material expenses (flyers, workshop uniforms).

Period 2 (July - September 2024):

- / Seven musical BPD tracks completed.
- / Clinician-facing app development and PEFR stratification logic delivered.
- / 8 clinician interviews completed; 2 patient interviews underway.
- / Project maintained timetable despite minor patient recruitment delays.
- / Cost variance due to music equipment overspend; managed via internal PCR.
- / Significant exploitation progress including applications to NIHR and Innovate UK pitch panel, and engagement with Birmingham Tech Week and Imperial College.

Period 2 (July - September 2024):

- / All milestones achieved: PPIE feedback integrated; game and app development complete.
- / Full delivery of clinical dashboards, musical tracks, patient engagement and stratification systems.
- / Final NICE evidence review completed.
- / Zero variance in project budget; cost controls deemed excellent.
- / High exploitation potential confirmed, with strategic plans for UK and international markets.
- / All risks effectively mitigated; final project closure completed on time and on scope.

MO Contributions & Impact

- / Maintained detailed monitoring records for all 3 periods, including score justifications and issue logs.
 - / Provided financial and compliance oversight, including PCR guidance and cost category clarifications.
 - / Facilitated robust final review and close-out discussion with project leads (Ben & Gayle Storey).
 - / Supported the team's preparation for post-project exploitation (NIHR, investment readiness, and VC engagement).
 - / Ensured all deliverables were met or exceeded, including cross-functional outputs in clinical design, patient engagement, gamification and app development.
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Project Outcomes

- / Completion of a novel prototype and app-based breathing retraining system.
 - / Validation of feasibility for use in NHS pathways, with promising clinician and patient feedback.
 - / Preparation for next-stage funding and regulatory pathways (including UKCA/FDA).
 - / Engagement with respiratory charities, commercial clusters, and health tech accelerators.
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Lessons Learned

- / PPIE recruitment is more effective through national charities than NHS clinics.
- / Flexibility in cost allocation is essential for rapid adaptation during early-stage feasibility work.
- / Early engagement with NICE, clinicians, and regulators de-risks later-stage development.

“This project demonstrated outstanding delivery against all core feasibility objectives. Tutti Toot Ltd showed exceptional strategic thinking, execution of deliverables, and awareness of commercialisation pathways. Their gamified, musical approach to respiratory therapy for children is highly innovative, and their IP protection and stakeholder engagement were strong throughout. It was a pleasure to work with this team.”

Gilly Brunton, Monitoring Officer