Transforming Diabetes Through Innovation

Exploring priorities and the landscape

Introduction

The role of innovation in supporting transformation within healthcare is well recognised. This project aimed to map the current diabetes digital innovation landscape in Scotland. Through engagement with people living with diabetes, healthcare, and third-sector professionals we sought to understand unmet needs and identify gaps to inform future diabetes innovation developments.

Methods

An online survey of people living with diabetes and healthcare professionals sought to identify priorities for diabetes innovation[1]. Desk-based research aimed to map current Scottish-based innovation projects. Interviews and workshops were designed to engage people living with diabetes and relevant healthcare and third-sector professionals in identifying gaps and aspirations for future innovation.

GAPS
Overarching 'how might we...?' questions by theme. See all questions via the QR code below.

HEALTH & DIGITAL INEQUALITIES — How might we **support people struggling financially for whom lifestyle is not a choice?**

LIFESTYLE — How might we **ensure education supports the person to identify small changes they can make to their lifestyle to ensure they are achievable and not overwhelming?**

EDUCATION — How might we **tailor the technology options to the person to help them find the best available solution?**

How might we **tailor diabetes care** in terms of:
- Life course / stage
- Readiness to engage
- Co-morbidities
- Health literacy
- Personal circumstances?

MENTAL WELLBEING — How might we **identify when mental health challenges are preventing someone from engaging in diabetes care and focus on supporting this first?**

FLEXIBLE CARE PATHWAY — How might we **support people to navigate the diabetes care landscape to find the information and support they need?**

TECHNOLOGY & DATA — How might we **ensure professional education is an enriching experience rather than a tick-box training module?**

What are the **gaps** in the diabetes innovation landscape?

What diabetes **innovation projects** are being undertaken in Scotland with the potential to impact on the experiences of people living with diabetes in the next five years?

What are the **challenges in innovating** care for people living with diabetes?

INNOVATION PROJECTS
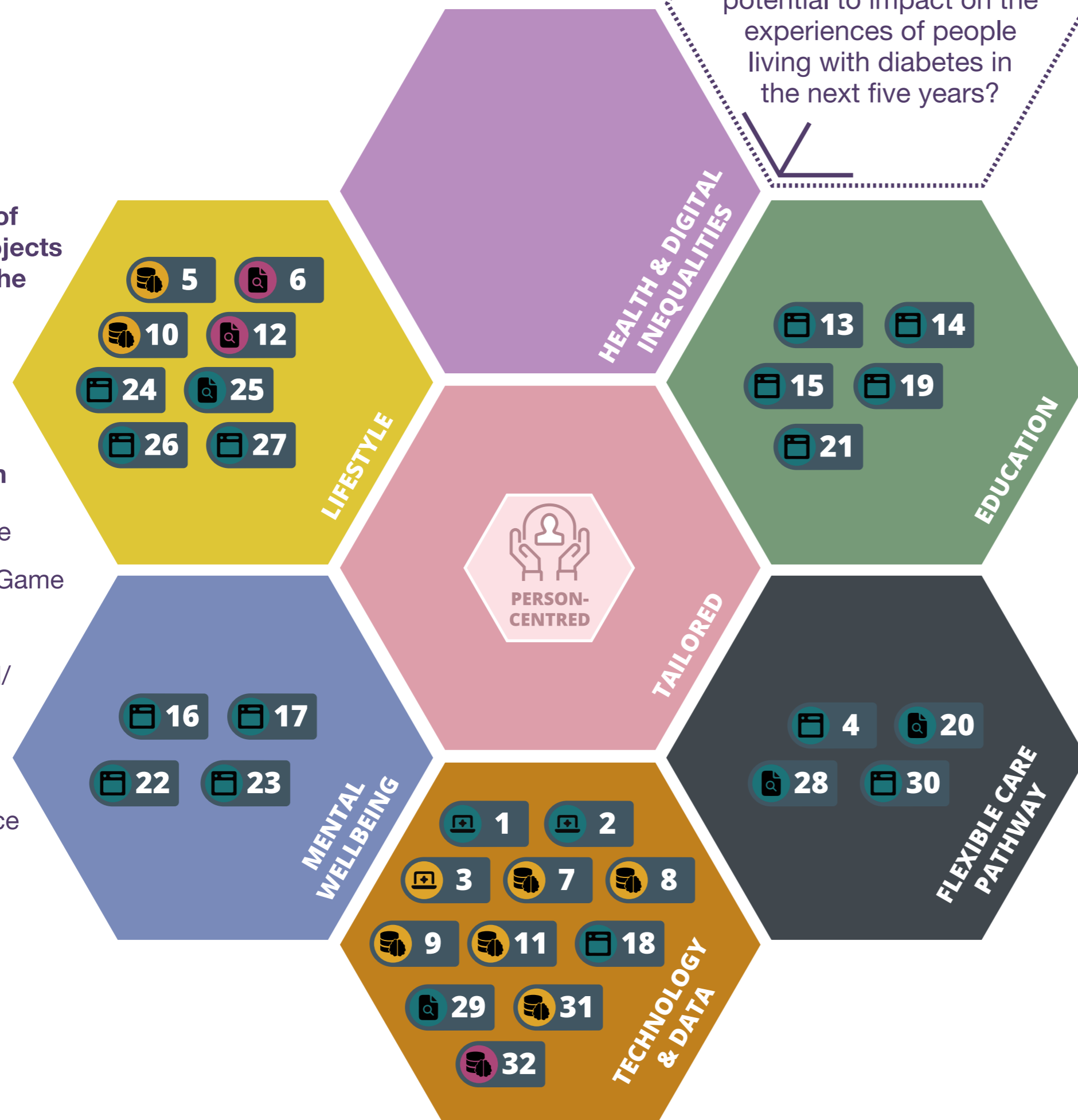Full descriptions of the numbered projects are available via the QR code below.

KEY

Type of innovation
- Medical device
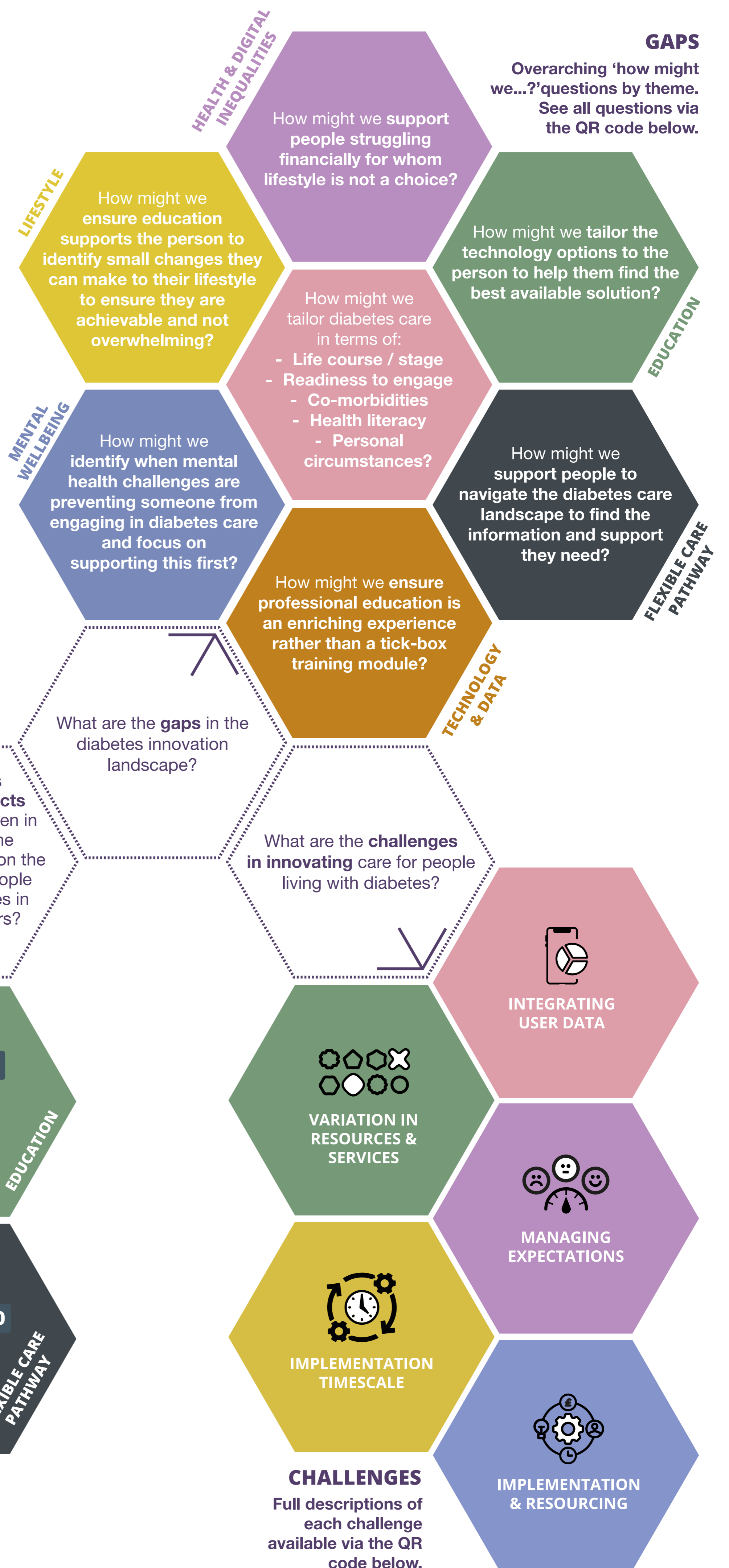- App/Website/Game
- AI / Data
- Service model/ research

Readiness
- Product/service available
- Developing innovation
- Early innovation

LIFESTYLE: 5, 6, 10, 12, 24, 25, 26, 27

HEALTH & DIGITAL INEQUALITIES

PERSON-CENTRED

TAILORED

EDUCATION: 13, 14, 15, 19, 21

MENTAL WELLBEING: 16, 17, 22, 23

TECHNOLOGY & DATA: 1, 2, 3, 7, 8, 9, 11, 18, 29, 31, 32

FLEXIBLE CARE PATHWAY: 4, 20, 28, 30

CHALLENGES

- INTEGRATING USER DATA
- VARIATION IN RESOURCES & SERVICES
- MANAGING EXPECTATIONS
- IMPLEMENTATION TIMESCALE
- IMPLEMENTATION & RESOURCING

Full descriptions of each challenge available via the QR code below.

Results

Survey responses (n=275) and desk-based research findings were analysed to build a map of current projects and priority areas, which was validated and used to identify opportunities for future innovation in interviews (n=8), four in-person workshops (n=25) and one virtual workshop (n=16). The findings are presented as interactive digital maps structured around seven challenges: individualising care, lifestyles, education, health and digital inequalities, mental wellbeing, technology and data, and flexible care pathways. The current landscape maps identified innovation projects, highlighting their innovation type and readiness for adoption. The future landscape maps ideas and aspirations for care alongside current innovation projects. Finally, we identify five challenges in innovating diabetes care: implementation, resourcing, variation in resources and services, integrating user data, implementation timescales and managing expectations.

Discussion

This is a novel and person-centred approach to the identification of innovation priorities, putting the users' needs at the centre of the agenda. By mapping future aspirations against current innovation projects, we highlight gaps in the diabetes innovation landscape. Work to transition these themes into future challenge calls for investment is underway.

Authors
Michelle Brogan, Service Development Manager, DHI, michelle.brogan@dhi-scotland.com
Gemma Teal, Research Fellow, The Glasgow School of Art
Angela Bruce, Research Fellow, The Glasgow School of Art
Jamie Savage, Research & Knowledge Management Officer, DHI

References
1. Savage J. Transforming Diabetes Care Through Innovation Survey Results [Internet]. 2022. Available from: https://strathprints.strath.ac.uk/83025

Digital Health & Care Innovation Centre

View the full project report including interactive visualisations via this QR code: