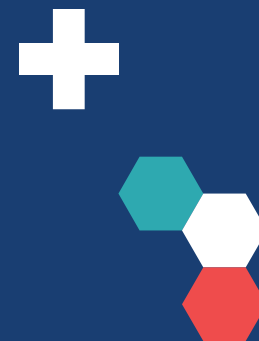


# Immersive Technology for Mental Health: Hype or Hope?

Jen Martin PhD  
Deputy Director



# MindTech

2013 – 2017: NIHR Health Technology Co-operative

2018 – 2024: NIHR MedTech Co-operative

**2024 – 2029: NIHR HealthTech Research Centre**

## **National Remit: Bring the NHS, industry, academia and patients together to:**

- Catalyse the development of new HealthTech for areas of unmet need & disease burden
- Provide expertise to evaluate innovations and generate appropriate evidence to support uptake into the health and care system
- Work collaboratively with the wider adoption landscape to translate research into benefits for patients and the public, the health and care system and economic gain.
- Build capacity and expertise in methodological approaches to generate robust evidence (e.g., health economics, human factors, care pathway assessment)

# Technology Areas



Digital Therapeutics



Neuromodulation & Neurostimulation



Machine Learning & Artificial Intelligence



Monitoring & Assessment

# The Growing Value of XR in Healthcare in the United Kingdom



# The Clinical Need: Mental Health

- Mental health disorders are the single largest cause of disability in the UK, affecting 1 in 4 people over their lifespan.
- 60% of adults and 70% of children receive no help at all.
- Technology has the potential to deliver new treatments and improve access, reach and engagement.
- Few Digital MH innovations are supported by research evidence and those that are struggle to be implemented in the NHS.



Chapter 5: Digitally-enabled care will go mainstream across the NHS

# How could Technology Help?



New non-pharmaceutical treatments



More objectivity and efficiency to diagnosis and management



Improving engagement and access to treatment

# A focus of national funding and policy initiatives... and a lot of research



Department  
of Health



Department  
for Education

**Transforming Children  
and Young People's  
Mental Health  
Provision:  
a Green Paper**

**Over £40m to lay foundations for new  
'Mental Health Mission'** **NIHR** | National Institute for  
Health and Care Research

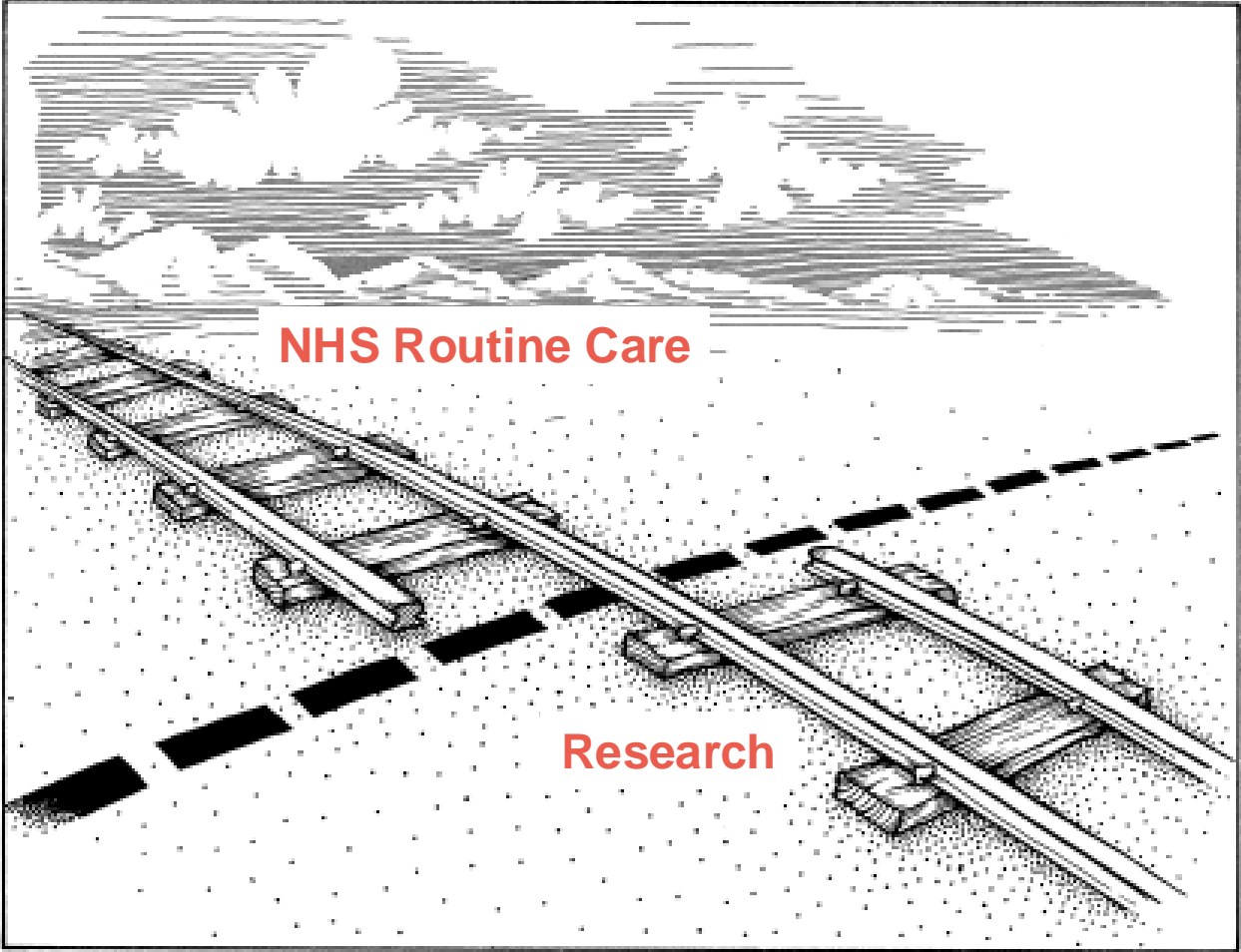


InnovateUK  
KTN

**£20M Mindset**

**Extended reality (XR) for digital mental  
health**

# However, there are significant implementation challenges





# And not all the potential has been realised...

MEYTECH

[in](#)  
[t](#)  
[f](#)  
[✉](#)  
[🔗](#)  
[📄](#)

## Cut to the core: Prescription app developer Pear Therapeutics files for bankruptcy, lays off staff

By **Conor Hale** · Apr 10, 2023 10:13am

[Pear Therapeutics](#) [bankruptcy](#) [digital therapeutics](#) [substance use disorder](#)



[Global Edition](#) [Finance](#)

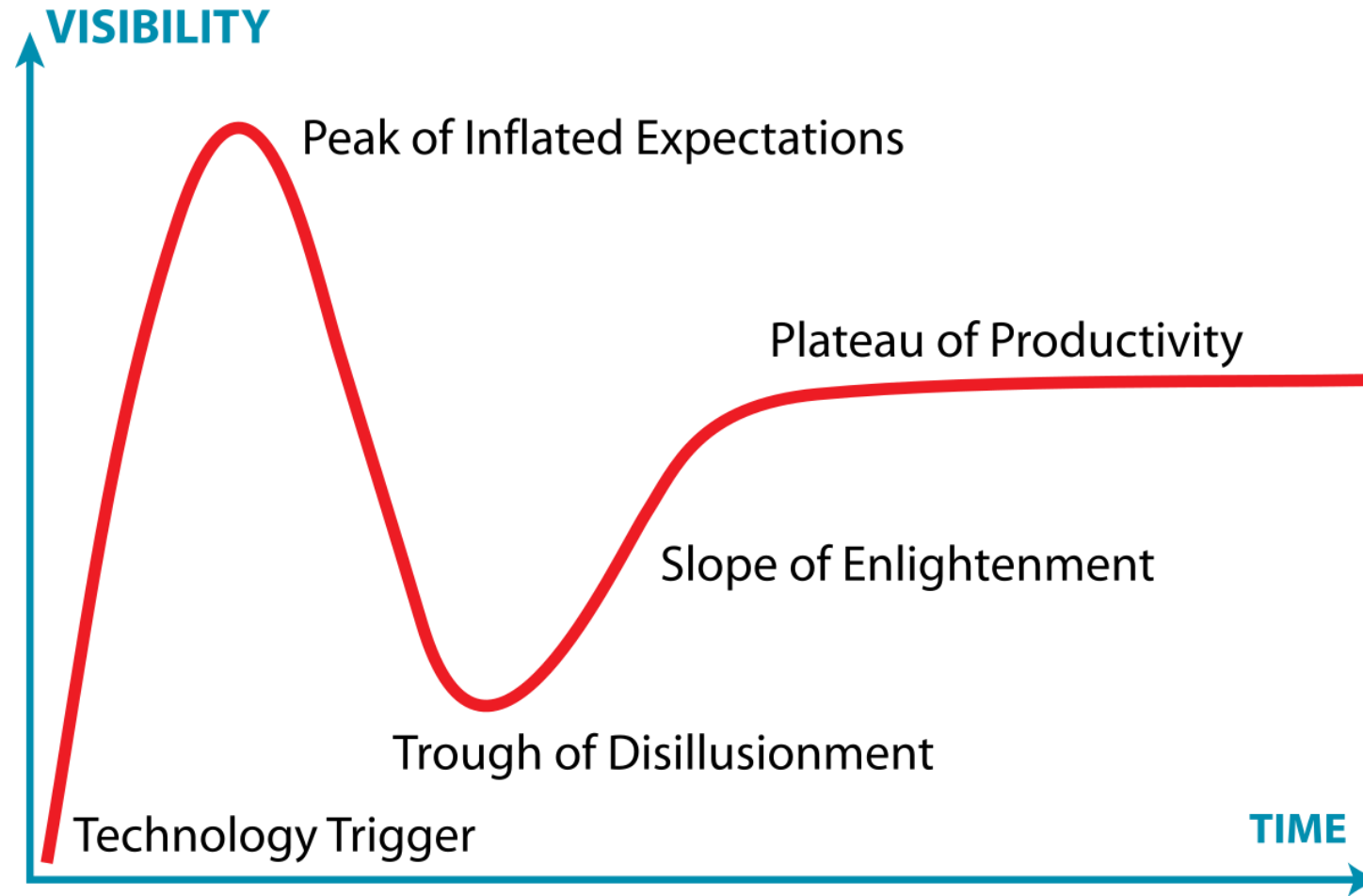
## Mindstrong sells tech assets to SonderMind, shuts down operations

The acquisition includes Mindstrong's technology assets and some of its employees.

Pear CEO Corey McCann said that, despite demonstrating that digital therapeutics could lead to improvements in financial

---

# The hype cycle: mind the trough of disillusionment



So how can we avoid the hype of XR?

# 1. Learn from others



**gameChange**  
Improving lives through VR therapy



**LUMI  
NOVA**  
TALES OF COURAGE

# gameChange: Psychological Therapy for Psychosis

- Based on several years of research on VR for mental health led by Prof Daniel Freeman at Oxford University
- Research consortium awarded £4M by NIHR 'Grand Challenge for Mental Health' in 2018
- Automated treatment which takes patients through 6 everyday scenarios with virtual therapist
- Designed with people with lived experience
- Trial involved 346 people across 5 NHS sites, which included a variety of service designs and staff roles
- Led to significant reductions in agoraphobic avoidance & distress with strong patient and staff approval.
- 2022: OxfordVR announce merger with BehaVR



BehaVR and OxfordVR Combine and Raise Series B to Create Largest VR Delivery Platform for Evidence-Based Digital Therapeutics

# Lumi Nova: Digital therapeutic game for anxiety in CYP

- 2018: BfB started working on concept for therapeutic CYP
- Worked with clinical experts to identify unmet need/ problem space:
  - *How to deliver exposure therapy (as part of CBT for anxiety)*
- 2019: Secured Innovate UK funding to develop product, in partnership with young people, clinicians and parents
- 2020: Conducted school-based evaluation of Lumi Nova in services
  - *Informed medical device approval*
- Lumi Nova launched in September 2020. Currently being used in 20+ NHS and Educational Services.
- Feb 23: Lumi Nova recommended by *NICE* for use with children and young people with low mood and anxiety with instruction to collect real-world evidence



## 2. Focus on the Unmet Need (Problem Space)

- What's the problem you're trying to address?
  - Doing one thing well is better than trying to solve multiple issues
- What care pathway/system will it fit into, and how?
  - Focus on pathways and integration into services, not just products
- Understand staff and their needs
  - Provide training, on-boarding, data integration
- What's the value proposition?

# 3. Understand what will the NHS pay for

## Transformative Products and Services that lead to tangible outcomes

- Improvements in health outcomes
- Improved efficiencies (reduce costs/staff time)
- Improved access and reach – particularly for under-served groups
- Address local or national NHS Priorities
- Reduce burden on NHS:
  - Treatment Costs
  - Waiting Lists
  - GP appointments
  - A&E Attendance
  - Inpatient admissions and length of stay
- **Prevention/ public health interventions are very difficult to evidence**



# 4. Accreditation and Evidence Generation

- Build evidence from the very earliest stages
- Who will be the key decision-makers?
- What outcomes will be important for them?
- Understand the landscape:
  - Will your product be a medical device?
  - Does it meet the NHS England Digital Technology Assessment Criteria (DTAC)?
- Look at existing evidence blueprints:
  - NICE Early Value Assessments
  - NICE Medical Technologies Evaluation Programme



**NICE** National Institute for Health and Care Excellence

## Digitally enabled therapies for adults with depression: early value assessment

Health technology evaluation | HTE8 | Published: 16 May 2023

## Guided self-help digital cognitive behavioural therapy for children and young people with mild to moderate symptoms of anxiety or low mood: early value assessment

Health technology evaluation | HTE3 | Published: 08 February 2023

## Virtual reality technologies for treating agoraphobia or agoraphobic avoidance: early value assessment

Health technology evaluation

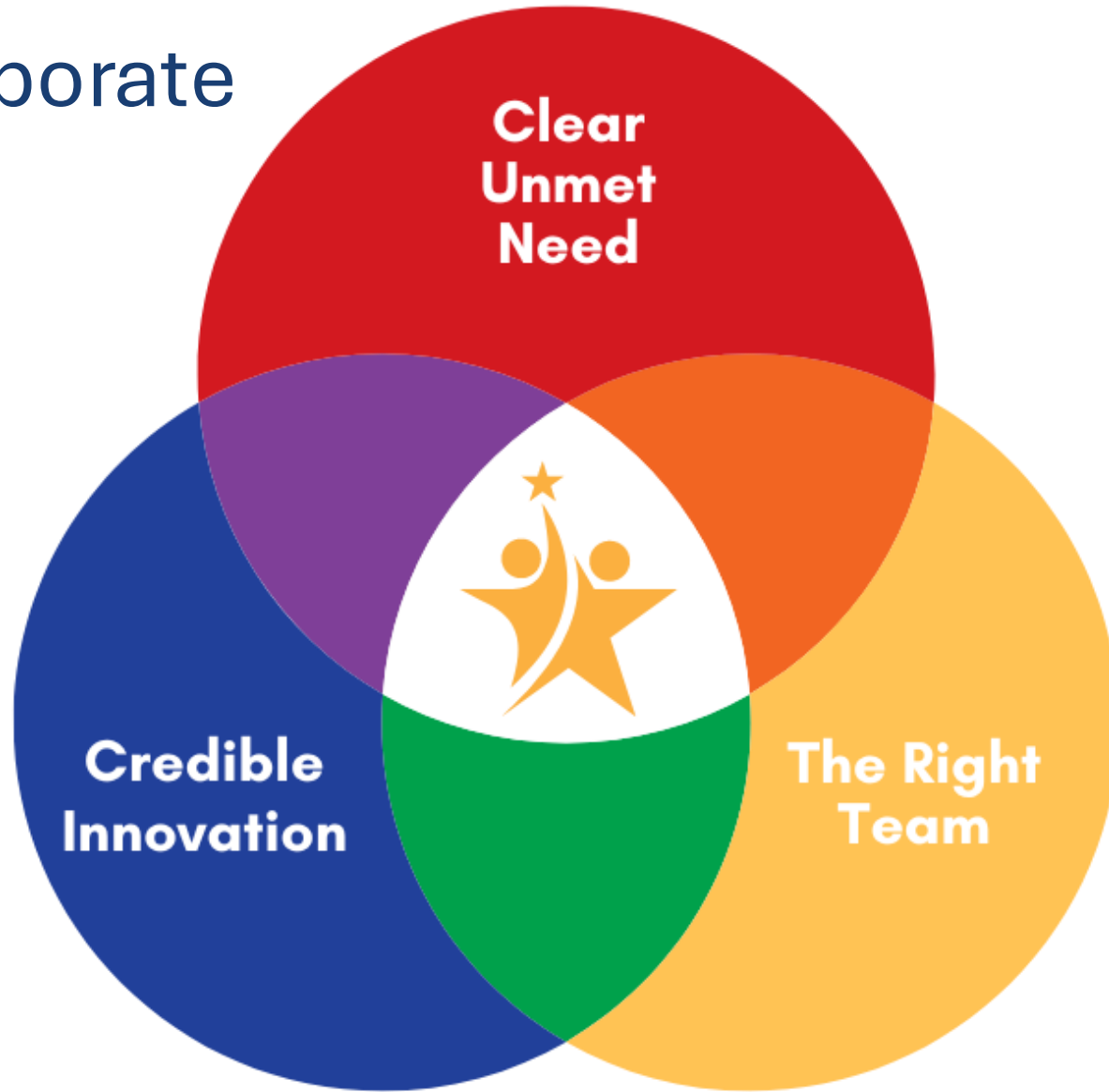
HTE15

Published:

15 November 2023

**gameChange**  
Improving lives through VR therapy

# 5. Collaborate



**+ The Right Support**



Innovate UK

