

# NewMind Plus Sandpit

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# Day 1 Programme

1500 - 1530	Registration
1530 - 1550	Welcome & Introduction - Prof. Chris Taylor (PI, NewMind Network) <i>An overview of the NewMind Network, EPSRC Networks Plus funding, and the aims of the workshop</i>
1550 - 1710	Developing Project Ideas (1) <i>Group Introductions</i> 10 mins <i>Brainstorming Project Ideas</i> 25 mins <i>Developing the Project Pitch</i> 45 mins
1710 - 1730	Refreshment Break
1730 - 1850	Developing Project Ideas (2) <i>Group Introductions</i> 10 mins <i>Brainstorming Project Ideas</i> 25 mins <i>Developing the Project Pitch</i> 45 mins
1900	Evening Dinner

# NewMind Network

*Technology to transform mental health care*

- Funded by EPSRC
- Partnership with **MindTech**
  - NIHR Health Technology Co-operative
- NewMind Objectives
  - build EPS community engaged with mental health
  - help EPS researchers understand service need
  - envision technology intervention scenarios
  - identify underpinning EPS research challenges
  - develop new research collaborations

# NewMind Research Roadmap

- Health Outcomes Framework
  - What are interventions trying to achieve?
- EPS Research Challenges
  - What research is needed to realise the potential?
- Ethical and Responsible Innovation Framework
  - What principles should researchers respect?

# Health Outcomes Framework

- Working with scenarios
  - Imaginative examples of interventions
  - Science fiction allowed!
  - Analysis – what are they trying to achieve?



# Health Outcomes Framework

- Taking control
  - Empowering self-management
  - Enabling collaborative care
  - Developing self-awareness of triggers
  - Managing medication effectively
- Smarter Intervention
  - Early diagnosis and stratification
  - Providing early warning of deterioration
  - Altering mood, deploying coping strategies
  - Managing sensory experience

# Health Outcomes Framework

- Living better
  - Living independently
  - Reducing isolation
  - Supporting challenging activities
  - Supporting social interaction

# EPS Research Challenges

- Sensing systems
  - Continuous picture of health, activity and experience
- Information management
  - Dealing with the flood of data, integrating with health record
- Data analytics
  - Making sense of data – patterns and prediction
- Human-centric systems
  - Making systems useable, unobtrusive, personalised



# Ethics and Responsible Innovation

- Privacy and confidentiality
- Co-development
- Choice and personalisation
- Empowerment and control
- Impact on relationships
- Fair access and support

# NewMind Plus

- Awarded February 2016
- Runs June 2016 – May 2019
- Research funding of £360k
  - must be EPS research
  - up to 12 exploratory projects @ £15k
  - up to four further feasibility projects @ £45k
- Project proposals developed through network activities
  - must be initiated at a Sandpit event

# Developing & Selecting Proposals

- Sandpit events (5 to date, inc. this one)
  - broad participation
  - co-producing ideas
  - building partnerships
  - creating proto-proposals
- Proposal development workshops (as required)
  - developing proposals
  - involving service users
- Dragons' Den (5<sup>th</sup> October 2017)
  - selecting proposals to fund

# Exploratory Projects

- Examples
  - literature surveys
  - user centred design
  - analyses of existing data
  - pilot data collection
  - software prototyping
- Must address an EPS Research Challenge
- Must align with NewMind Research Roadmap
- Must have clearly defined deliverables

# This Event

- Day 1: generating research ideas (x2)
  - brainstorming
  - shortlisting
  - initial development
- Day 2: developing (full) proposals
  - presentation and sign-up
  - refining objectives
  - exploring EPS research challenges
  - agreeing next steps (e.g. exploratory project proposal)

# Process for this Afternoon

- Groups based on clustering of initial ideas
- Group introductions (10 min)
- Brainstorming research ideas (25 min)
  - co-developing ideas within the group
  - selecting 1 or 2 ideas (voting if necessary)
- Developing project pitches (45 min)
  - adding more detail
  - completing template posters

# Selecting Breakout Groups

- Topics identified by you via Well Sorted
  - 4 colour-coded clusters
- Select one group per session (at registration desk)

Session 1	Session 2
Red	Green
Blue	Orange

# Process for Tomorrow

- One minute pitches
- Browsing and sign-up
  - explore other groups' proposals
  - sign-up to continuing involvement
  - choose two to work on
- Developing the proposals (two sessions)
  - refine the mental health objectives
  - explore the EPS challenges
  - outline the work packages in the full proposal
  - identify ethical and responsible development issues
  - what could an exploratory project address?
  - what could a follow-on feasibility study address?



# Day 2 Programme

0830 - 0900 Registration & Poster Browsing

0900 - 0915 One Minute Proposal Presentations  
*Each group provides brief overviews of their proposals*

0915 - 0935 Proposal Sign-up  
*Participants browse proposals and commit to those they wish to support*

0935 - 0945 Introduction to Developing & Submitting the Proposal - Chris Taylor

0945 - 1115 Developing Project Proposals (1)

1115 - 1130 Refreshment Break

1130 - 1300 Developing Project Proposals (2)

1300 - 1315 Plenary Discussion & Next Steps - Chris Taylor

Lunch & Close

# Developing the Proposals

<b>Session 1: 0945 - 1115</b>	<b>Session 2: 1130 - 1300</b>
1 – Mood Regulating “Mini Me”	3 – Self monitoring for MH/wellbeing in the workplace: physical & digital sensing
2 – Safe Self Harm Fidget	4 – Digital Biomarkers for MH research
(5 – Peer Support / Peer Controlled Menu of provision)	

# Developing the Proposals

- Refine the mental health objectives
- Explore the EPS challenges
- Outline the work packages in the full proposal
- Identify ethical and responsible development issues
- Outline a possible exploratory project
- Outline a follow-on feasibility study

# Proposal Format

- Title, who is involved etc
- Full proposal
  - Vision, opportunity, need (250 words)
  - EPS challenge (250 words)
- Feasibility funding
  - Need for funding (250 words)
  - Deliverables (250 words)
- Ethical and responsible innovation issues (250 words)

# Next Steps

- Collaboration site (shared on dropbox)
  - Capture of workshop outputs
  - Contact details for signed-up colleagues
  - Shared workspace for each proposal
- Proposal development workshops
- Exploratory projects
  - Submission: **Friday 8<sup>th</sup> September**
  - Informed: **w/c Monday 18<sup>th</sup> September**
  - Dragons' Den: **Thursday 5<sup>th</sup> October**

# Dragons' Den

- Dragons
  - EPS investigators (no conflicts of interest)
  - Clinical
  - Health economics
  - Service user / lived experience
  - NHS/Commissioning
- Den
  - Max 3 project representatives
  - No more than 10 minute pitch
  - ~45 minutes discussion/probing

# Projects funded

- Unlocking the evidence from electronic patient records for smart intervention of mental health disorders – a case study in Alzheimer's Disease
- Towards a next generation platform for personalised neuro-therapeutic interventions in chronic pain
- Unobtrusive behavioural monitoring via the interactions of daily living
- AdaptivePlanning and raPid LEarning in mental health
- Managing Mental Health in a school environment
- Eating disorders in the digital age: Considering the safety measures required to prevent the abuse of healthy eating and fitness applications amongst youngpeople
- Dynamic well-being visualisation toolbox for digital products
- Tangible toys (TATO) with sensors and biofeedback mechanism: explorative work to assess its suitability and feasibility as a tool for treating anxious children