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WP7
Implementation Strategies, Processes, Outcomes and Costs
- Process evaluation -

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This project has received funding from the European Union's Horizon 2020 research and innovation Programme under grant agreement 945263 (IMMERSE)

WP7 - Objectives

1. To tailor, optimize and evaluate detailed implementation strategies for the Digital Mobile Mental Health intervention (DMMH) at each site and identify putative contextual factors based on an a priori assessment using the NASSS framework (**task 7.1**, with WP5, task 5.1, 5.2)
2. To investigate i) **R**each, ii) **E**ffectiveness, iii) **A**doption, iv) **I**mplementation and v) **M**aintenance of implementing the DMMH in routine care **(RE-AIM)** as a basis for assessing the **public health impact** of implementation and **scale-up** of the DMMH (**task 7.2**)
3. To examine the process of implementing the DMMH in routine care and identify in vivo configurations of contexts, mechanisms of change, and how these are associated with outcomes of implementation and intervention (**task 7.3**, with WP5, task 5.3)
4. To investigate the economic costs of implementing the DMMH intervention, determine cost-utility and extended cost-utility of the intervention vis à vis standard care (**task 7.4**)

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Realist evaluation and NASS

- Realist evaluation approach: to evaluate relevant contexts, mechanisms, and outcomes from the DMMH implementation

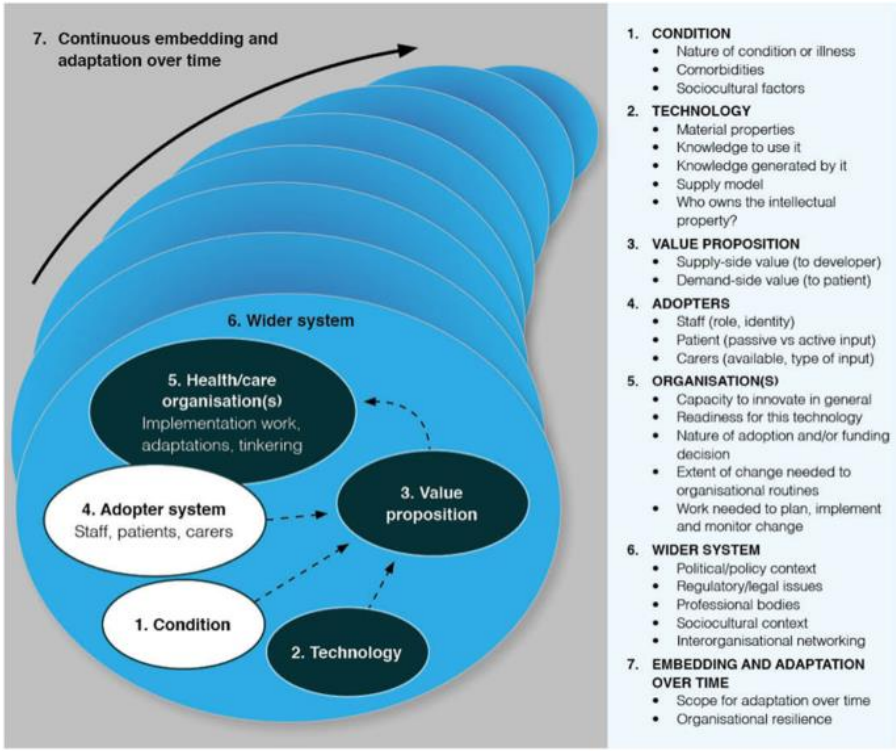
- Configurations of contexts, mechanisms of implementation, and outcomes of implementation are explored **across all levels of agents** within the intervention and its implementation

  - Participants, clinicians, teamleads

  - socio-economic and contextual factors impacting intentionality, behaviour and decision-making

  - unexpected consequences on service users and clinicians (impacts on teams and organizations)

Non-adoption, **a**bandonment, **s**cale-up, **s**pread, and sustainability framework (Greenhalgh et al, 2017)



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Glasgow et al., 1999; Greenhalgh et al., 2017; Helfrich et al., 2009; Pawson, 1997; Rosen et al., 2013

Mixed-methods approach

1) Qualitative Interviews

- Semi-structured interviews
- Following a realist evaluation approach combined with RE-AIM and NASSS frameworks
- What works, for whom, in what circumstances, in what respects, to what extent, and why?

2) Quantitative questionnaires

- Use of validated measures: MTUAS, ORCA
- A new questionnaire informed by the interviews
- focus on the processes of implementation of DMMH in health care settings.

CIP:

- Initial program theories will be developed based on initial semi-structured interviews.
- Overarching program theory and accompanying context-mechanism-outcome (CMO) configurations will be tested among intervention users (individual interviews with participants who have completed the DMMH intervention) as well as those who deliver the intervention (i.e., clinicians) and providing the context of intervention delivery (i.e., managers/system administrators), through **iterative data collection**.

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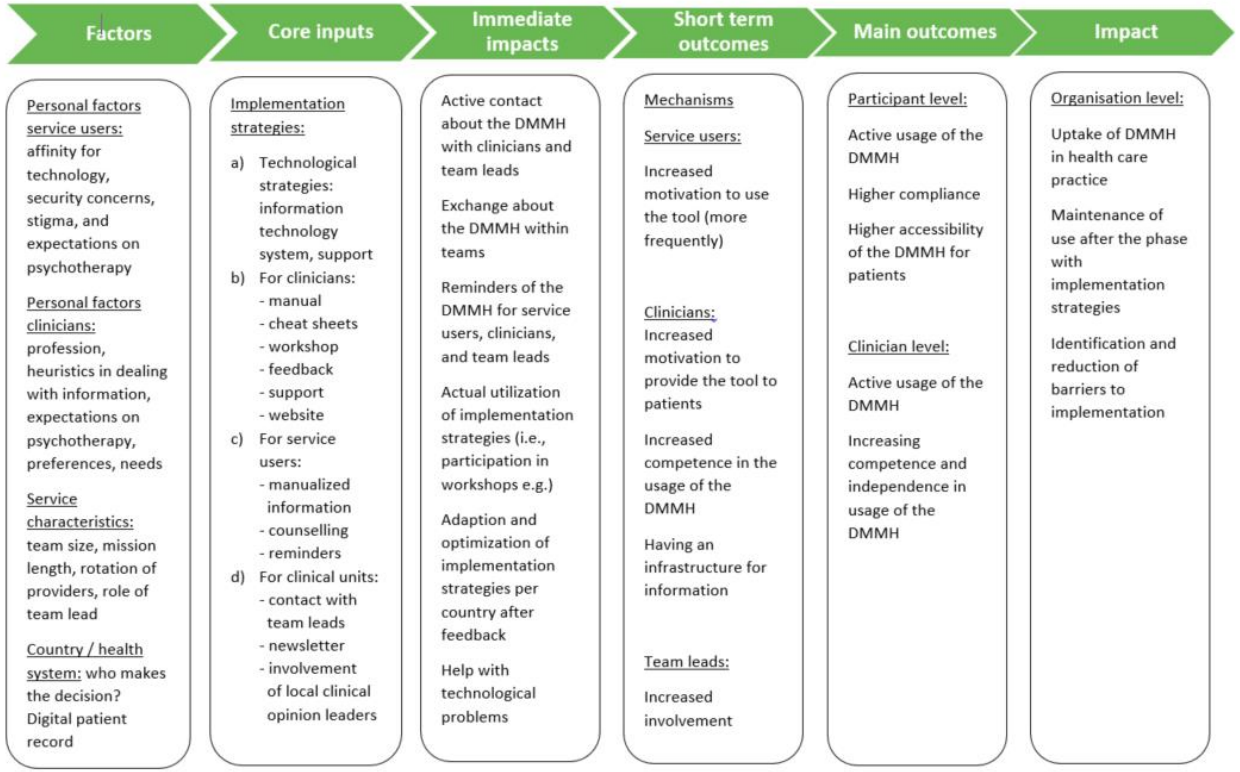
1) Qualitative Interviews

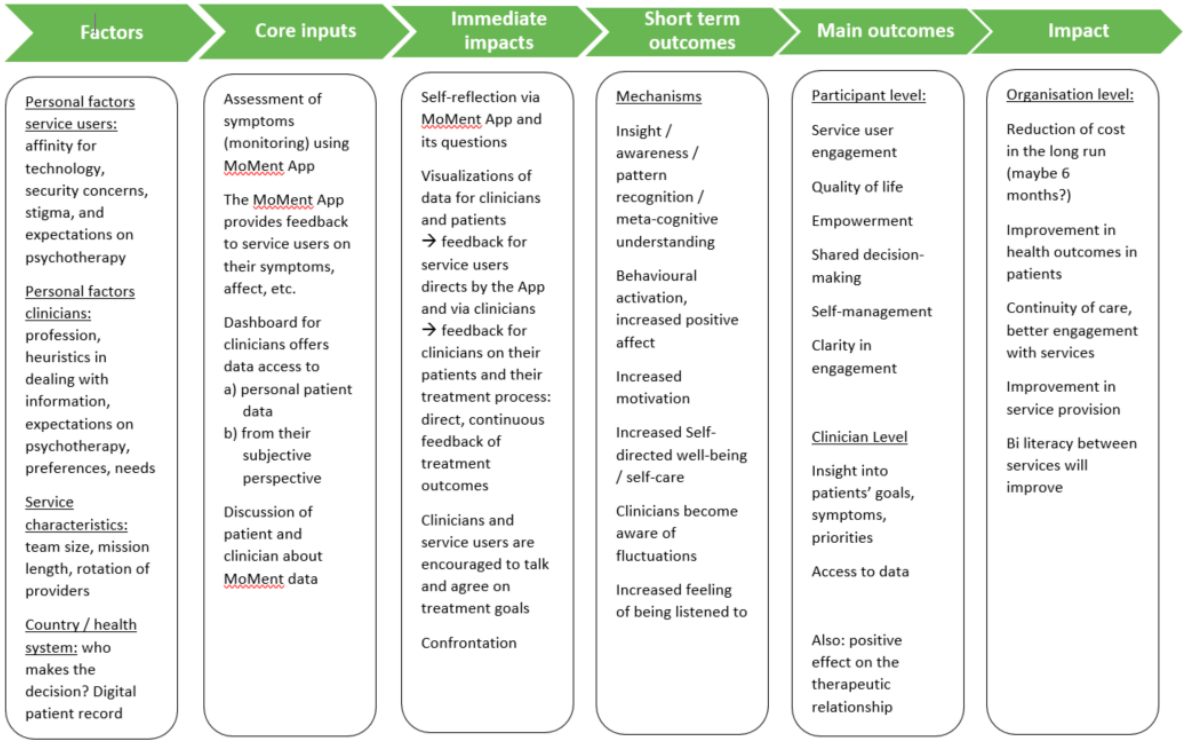
Core team: Jessica, 2 GE Master students, Simona, Erica, Islay, Koraima, Michel Wensing, Matthias Schwannauer

- Draft of context-mechanism-outcome (CMO) configurations

Implementation logic model



Intervention logic model



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Interview guide

- Interview guide for service users, clinicians, admins drafted by (02.08.2022)
- Interview guide commented by Michel and Matthias
- Interview guide was translated in local languages
- Training of staff (6.6.23)
- Pretesting interviews in each country (17.07.2023), meeting for consolidation of feedback from pretesting
- Release of version 1 of the interview guides (31.07.23)

Interview_guide_clinicians_final_version_31_07_23.docx (basecamp.com)

- Data collection, i.e. interviews
- Meeting with Maria Wolters (WP5), Matthias Schwannauer, Michel Wensing, Uli Reininghaus, Anita Schick and Jessica Gugel on the procedure and next steps (27.02.2024)

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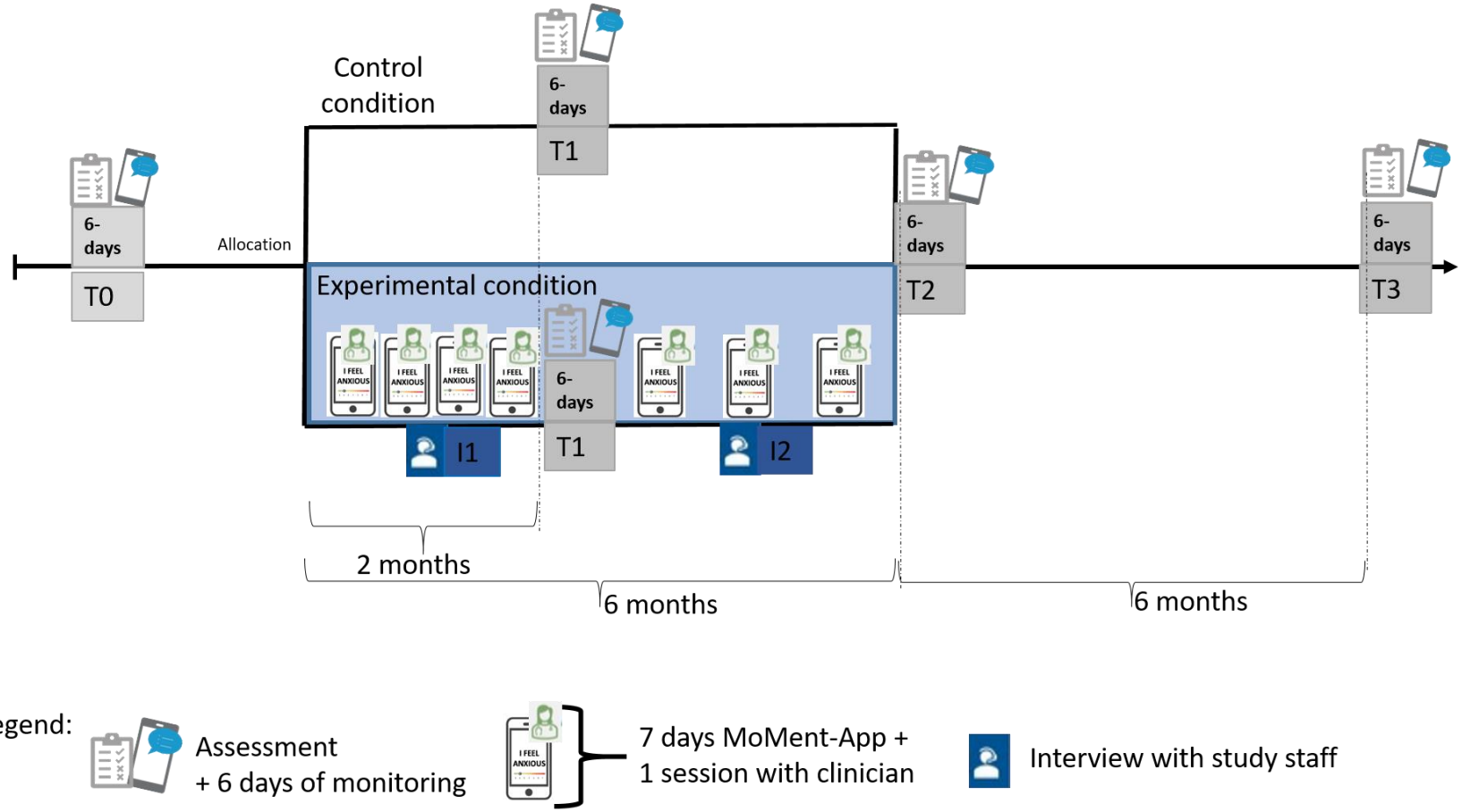
Target sample for interviews

Target sample size: n=120

- 40 service users
- 40 clinicians
- 40 managers/system administrators (i.e., 10 per country per group with the aim to include participants from various backgrounds).

- Time point: during and at the end of the 6-month intervention period



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Current status of interviews (8.4.24)

LE/ BI	LO / LO_CAMHS	MA/ WI	BR	KO
Clinicians: 6 (of10)	Clinicians: 4 (of10)	Clinicians: 12 (of10)	Clinicians: 4 (of10)	Clinicians: 0
Patients: 6 (of 10)	Patients: 7 (of10)	Patients: 9 (of10)	Patients: 5(of10)	Patients: 0
Admins: 2 (of 10)	Admins: 1 (of10)	Admins: 8(of10)	Admins: 1 (of10)	Admins: 0

- All service user interviews should be conducted in the time frame between T1 and T2
- Clinicians can be interviewed as soon as their first patient has finished T1; more data will be available later; but keep in mind that they might rotate out of the unit etc.

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Interview transcripts – current status (8.4.24)

LE/ BI	LO / LO_CAMHS	MA/ WI	BR	KO
Clinicians: 0 Patients: 0 Admins: 0	Clinicians: 0 Patients: 0 Admins: 0	Clinicians: 0 Patients: 9 Admins: 8	Clinicians:0 Patients: 0 Admins: 0	Clinicians: 0 Patients: 0 Admins: 0

- UK: uses transcription service
- AI-based program ‚NoScribe‘ that may be used to facilitate transcription

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Interviews - overview

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Codebook

- First draft for a codebook will be developed based on German data as these are available
- Per country: adaption of the codebook for each country based on the available data

- Team: Jessica, Michel until:

- LE/BI: ?
- BR: Adam
- KO: ?

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Interviews - time schedule

Site	Data will be collected untill	Tanscription completed untill	Coding	Draft
MA/ WI	06/2024	07/2024		
LE/BI				
LO/CAMHS				
BI				
KO				

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Papers qualitative phase 2 data

Site	Topic	Author
Mannheim/Wiesloch	Process evaluation with patients	Jessica
Mannheim/Wiesloch	Master thesis: Admins	Jens
Mannheim/Wiesloch	Master thesis: Clinicians	Simon
Each country	Realist evaluation with all stakeholders, but per country	Germany: Jessica? UK: Belgium: Slovakia:
All countries	Descriptive overview over all countries	Germany: Jessica? UK: Belgium: Slovakia:

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Questionnaire

Aim:

To document the implementation of the DMMH in health care settings processes in each of the sites as well as to explore the role of a range of contextual determinants (as specified in the NASSS framework) of implementation and intervention outcomes.

Method:

- Development of a questionnaire aimed at clinicians (or for all stakeholders?)

Decision:

The questionnaire will not be assessed in this sample

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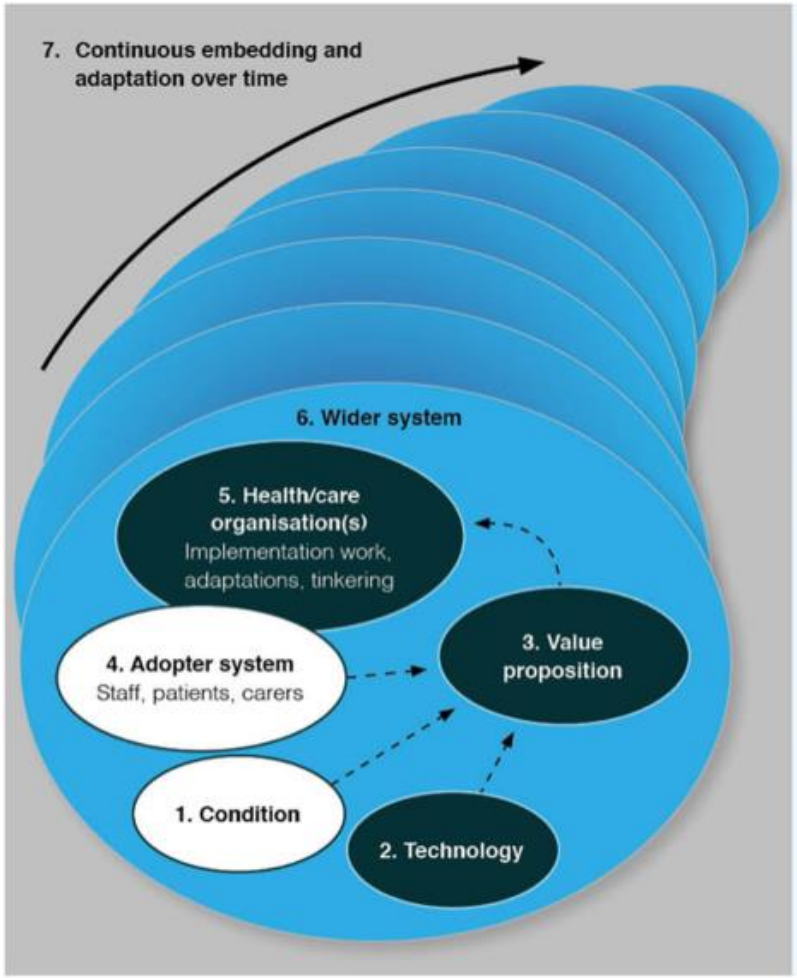
Questionnaire

- What should the focus of the questionnaire be?
  → broad focus versus focus on one specific NASSS domain
  - e.g. domain 3 ‚value proposition‘



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Example 1: NASS-CAT questionnaire

- Assessing complexity in the 7 NASS domains

	Agree	*Disagree*	*Not applicable or don't know*	*Likely to get more complex in next phase*
TECHNICAL COMPLEXITIES				
1. The technology does not yet exist in a robust and dependable form				
2. The technology is unfamiliar to the project team				
3. The technology supply chain is not yet in place				
4. The technology cannot be installed until the system is upgraded (e.g. hardware, bandwidth)				
5. A key technology needs to be installed across multiple technical systems to achieve 'integration'				
6. Introducing the technology will require significant changes in care pathways and organisational routines				
7. Quality standards and regulatory requirements for using the technology in a health/care setting have not been fully defined (or key stakeholders don't know about them or accept them)				
TOTAL TECHNICAL COMPLEXITY SCORE	/7			/7

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Questionnaire on sustainability of gamified mobile health apps (Mustafa et al., 2023)

Based on the social comparison theory

Subscales:

- Perceived authonomy
- Perceived competence
- Perceived relatedness
- App quality
- Perceived benefits
- Perceived hedonic gratification
- Perceived competitive climate
- Social comparizon
- Facilitating conditions
- Intrinsic Motivation
- Extrinsic Motivation
- Continued Use

Healthcare | Free Full-Text | An Integrated Model for Evaluating the Sustainability of Gamified Mobile Health Apps: An Instrument Development and Valid

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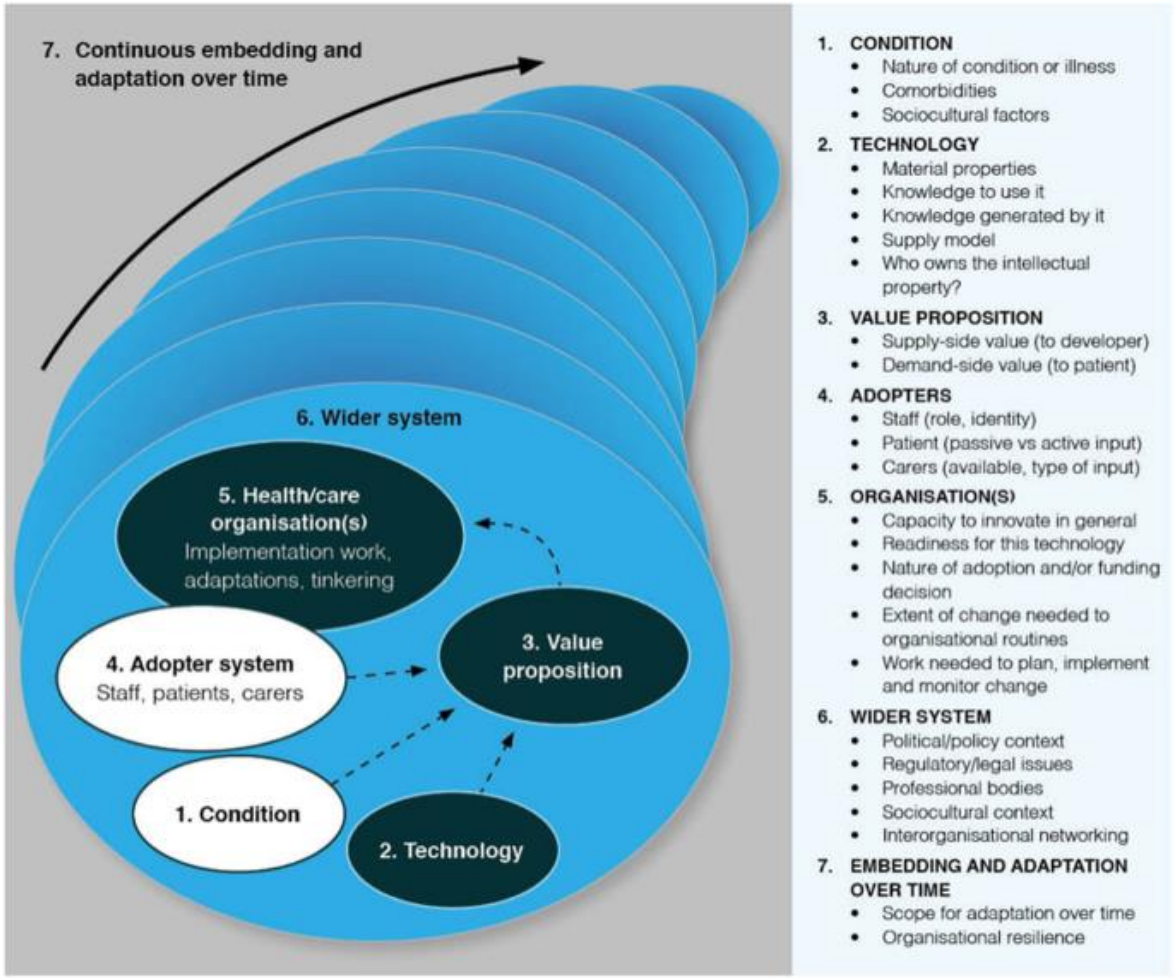
Discussion and decision:

- What should the focus of the questionnaire be?



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WP7 – Economic evaluation

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