



Developing a systems approach for healthcare improvement in LMIC

Professor John Clarkson FREng



PA Consulting
Group



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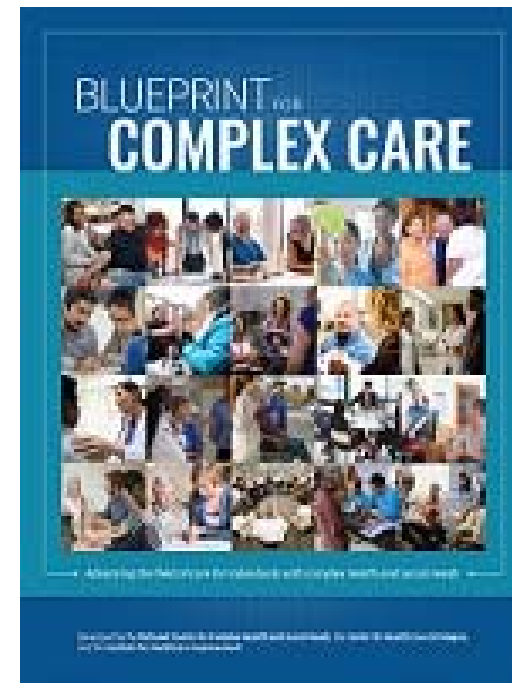
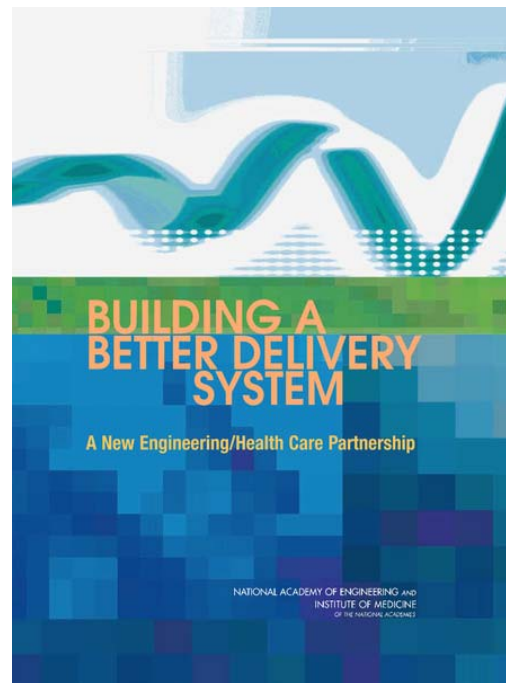


How can
we do it
better?



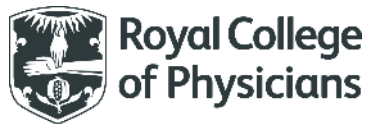
What could
possibly go
wrong?







To work with the health and care professions to explore how engineers can add to current understanding and practice of systems engineering in quality improvement and healthcare design

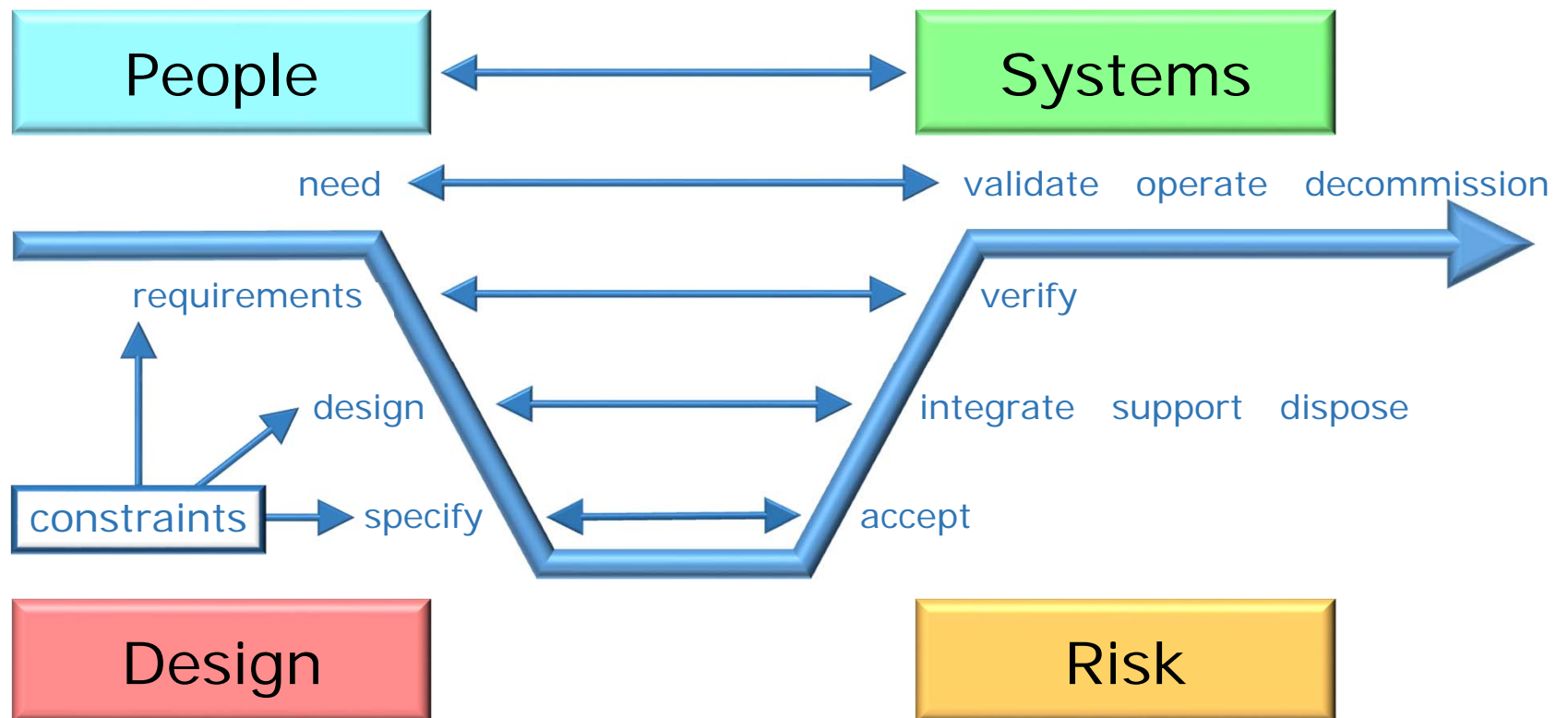




Systems Approach

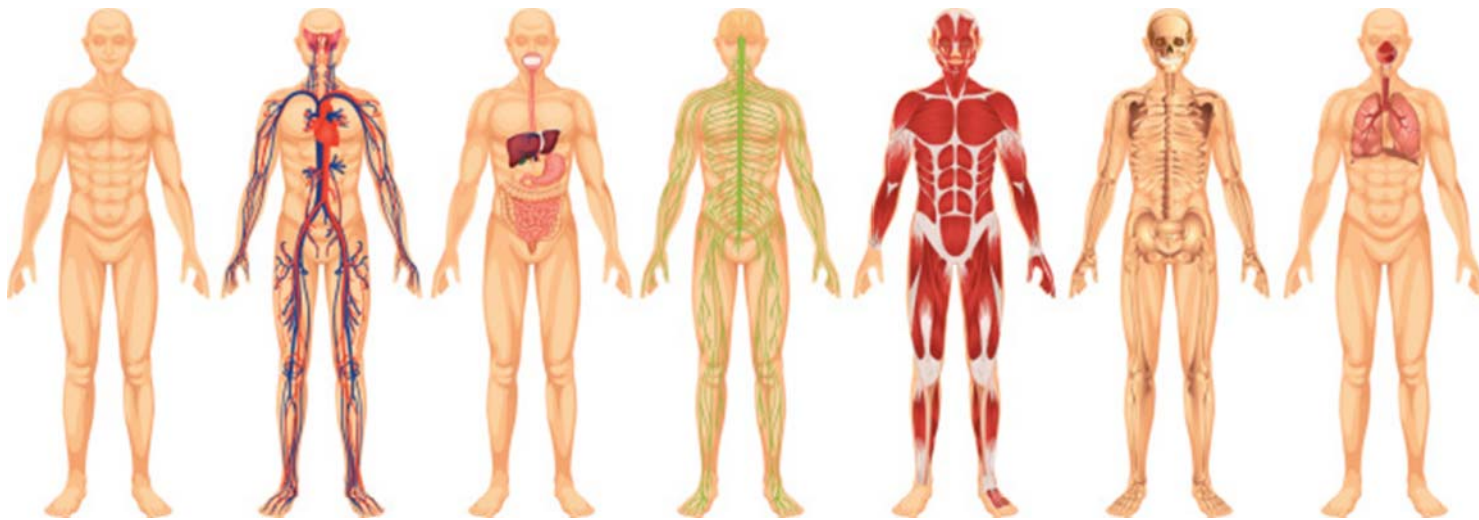
“ Systems that work do not just happen –
they have to be planned, designed and built ”

(Creating systems that work: Principles of engineering systems
for the 21st century, Royal Academy of Engineering, 2007)





Systems

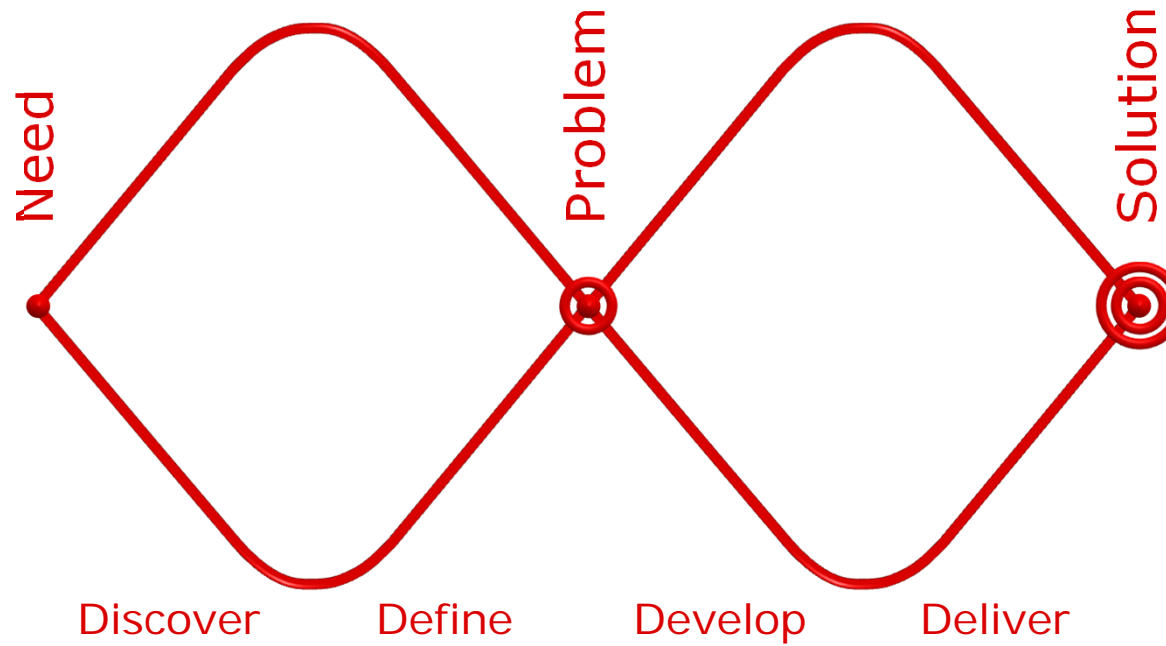




Systems

- Who are the stakeholders?
- What are the elements?
- How does the system perform?

Design

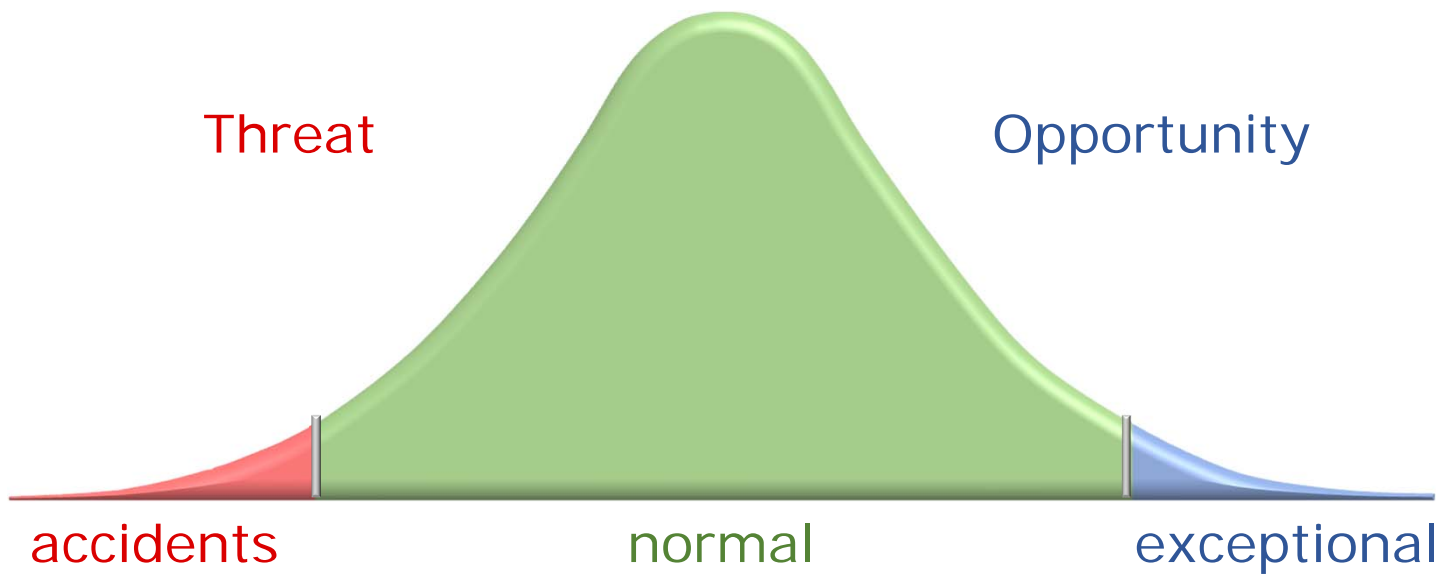




Design

- What are the needs?
- How can the needs be met?
- How well are the needs met?

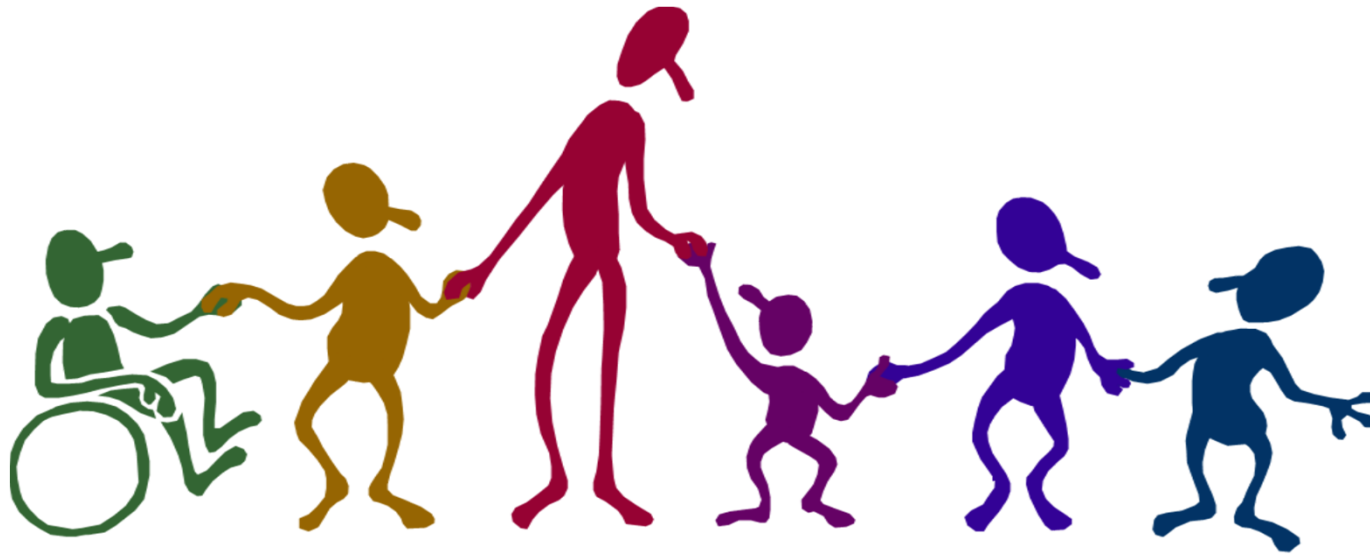
Risk



Risk

- What is going on?
- What could go wrong? / What do we do well?
- How can we make it better?

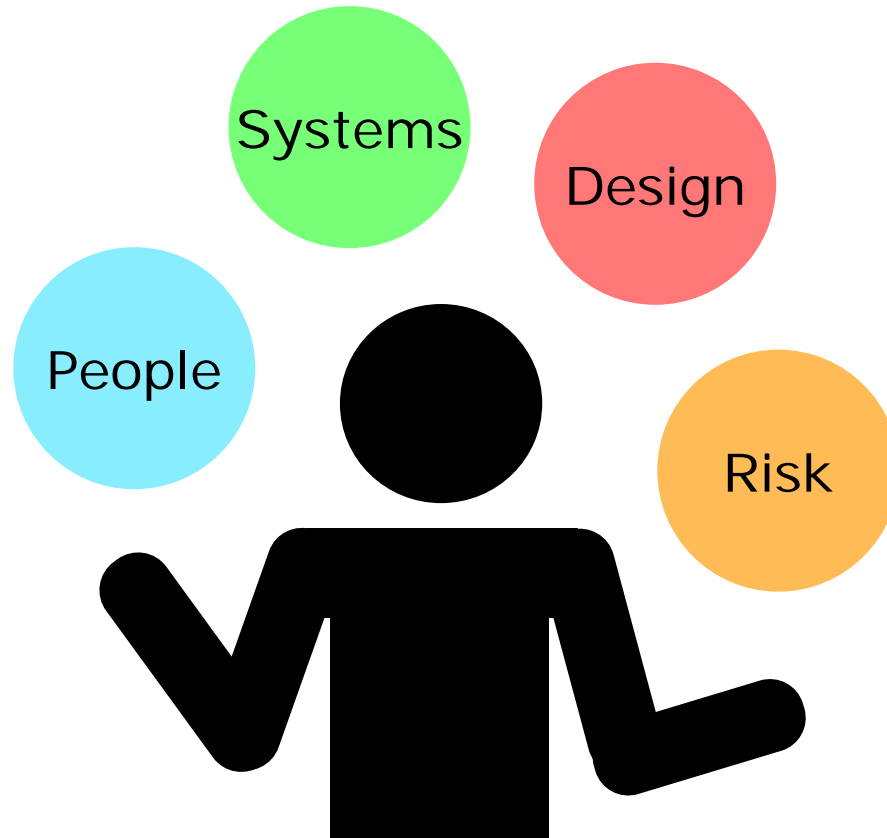
People

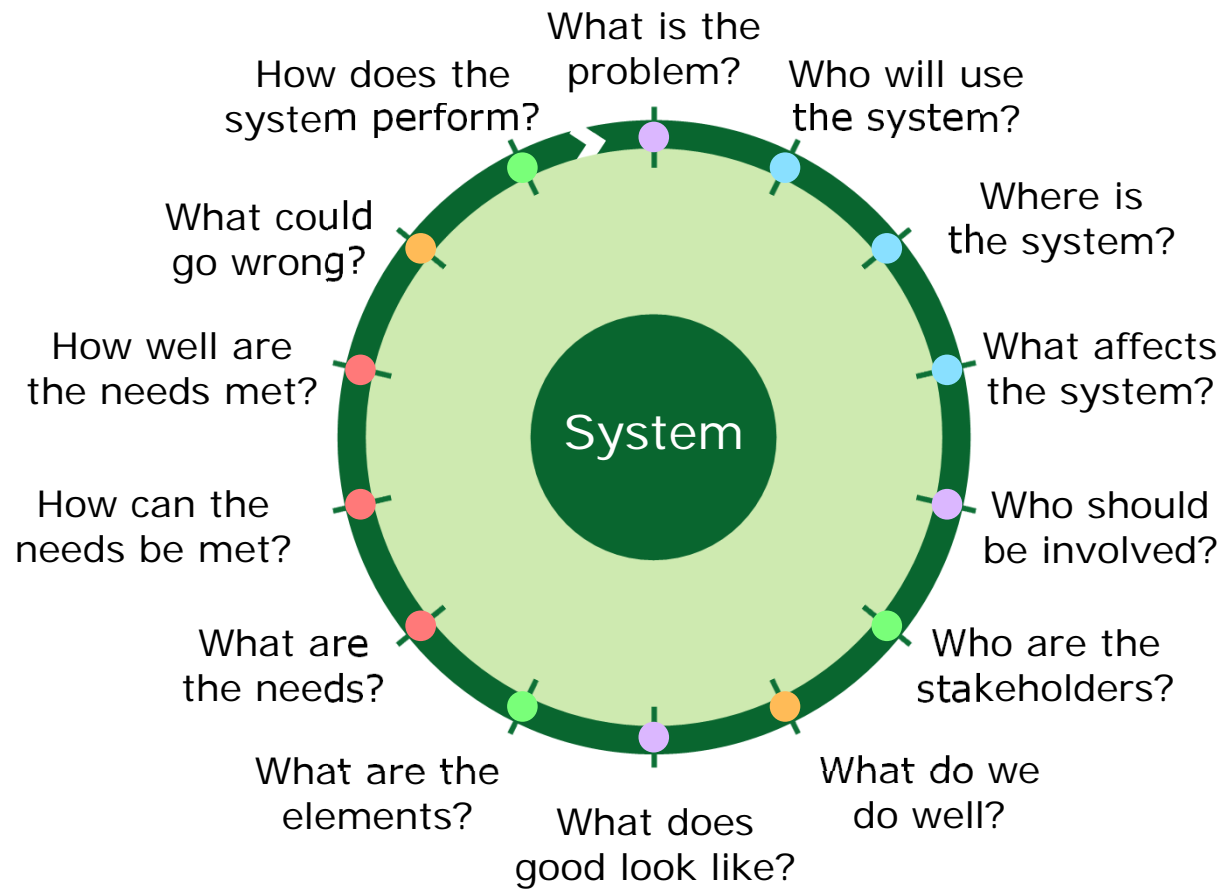


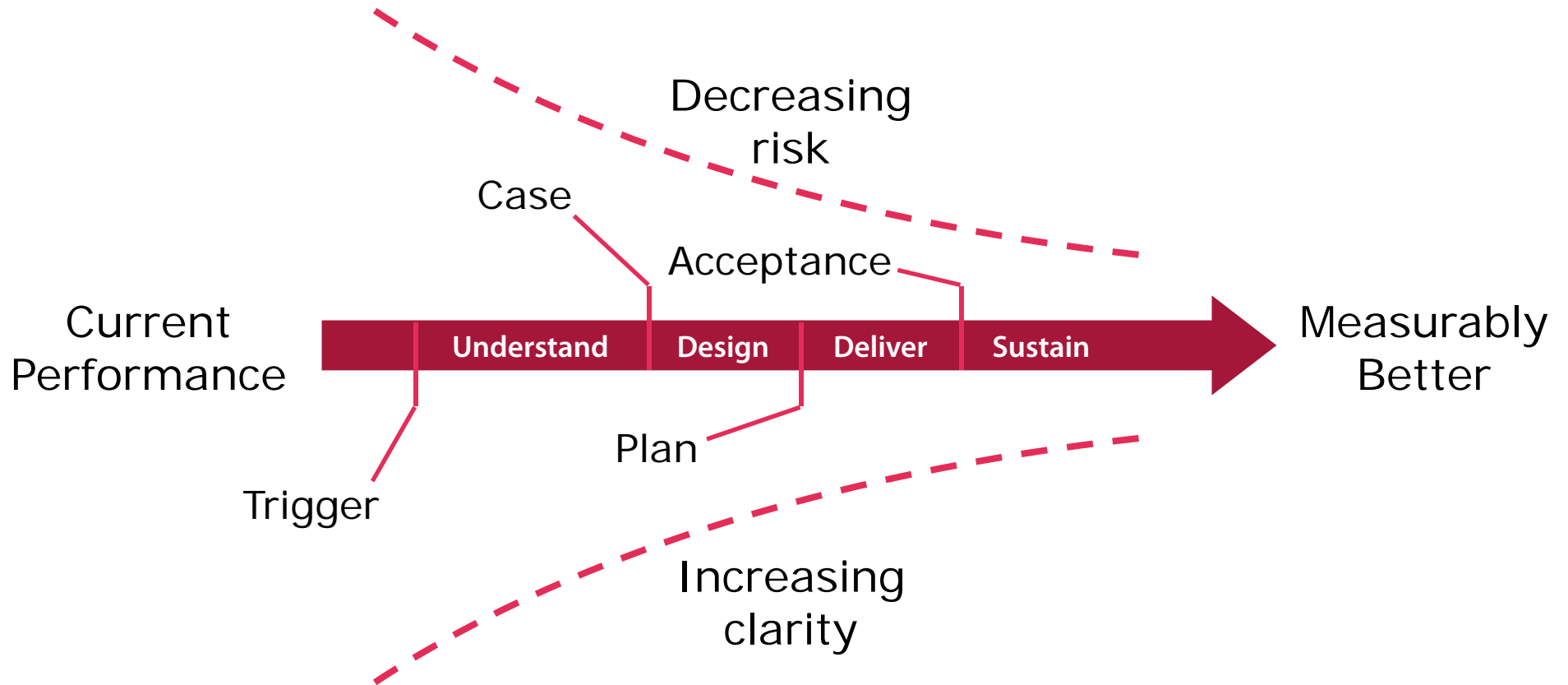


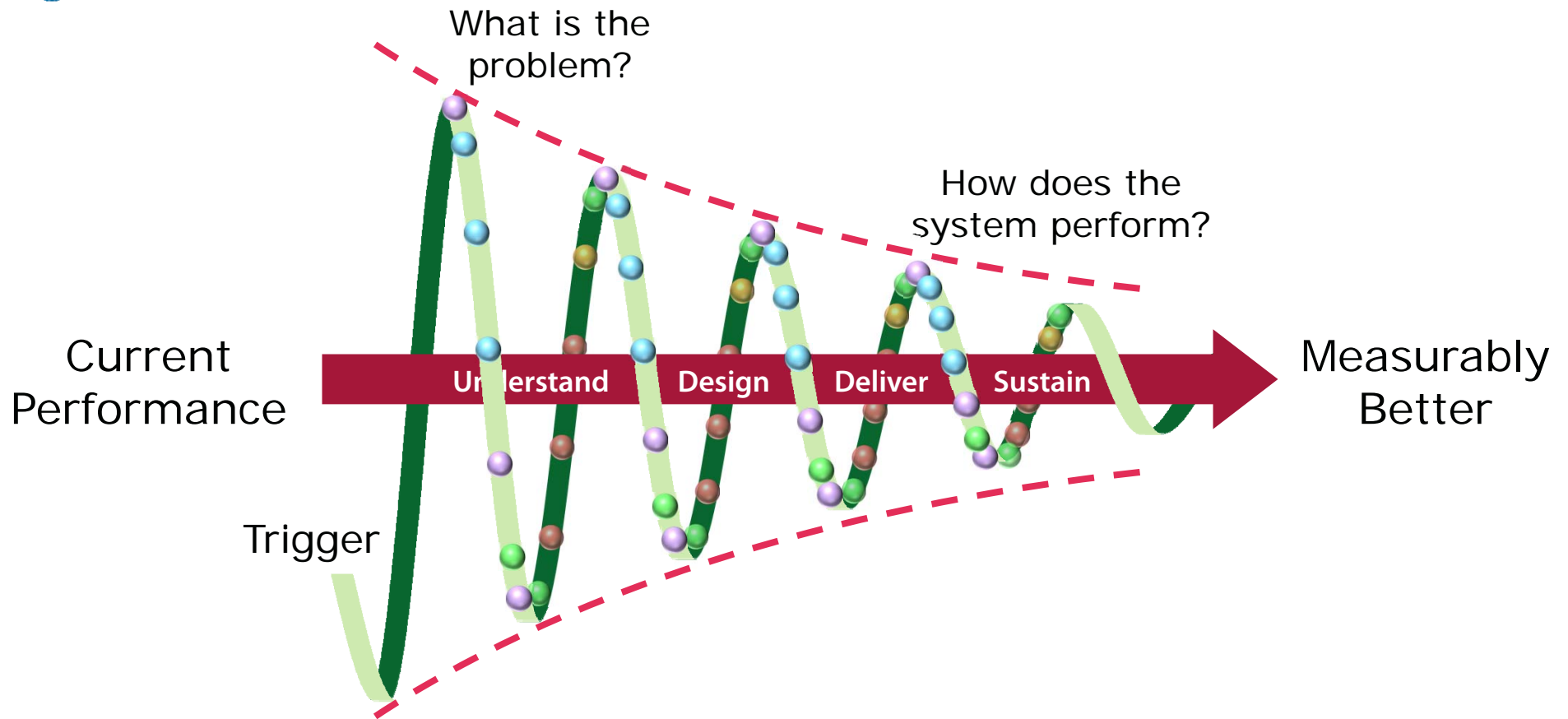
People

- Who will use the system?
- Where is the system?
- What affects the system?







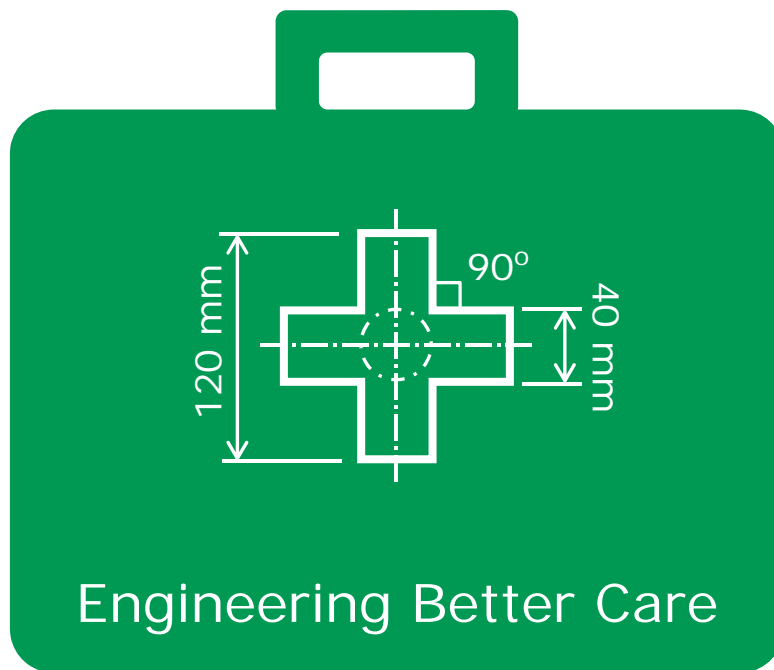


Radical thinking:

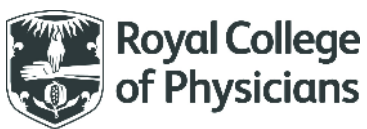
- Engineers think about people
- Iteration before implementation
- Design is an exploratory process
- Risk management is a proactive process
- Thinking changes practice, process helps
- Common sense is not common

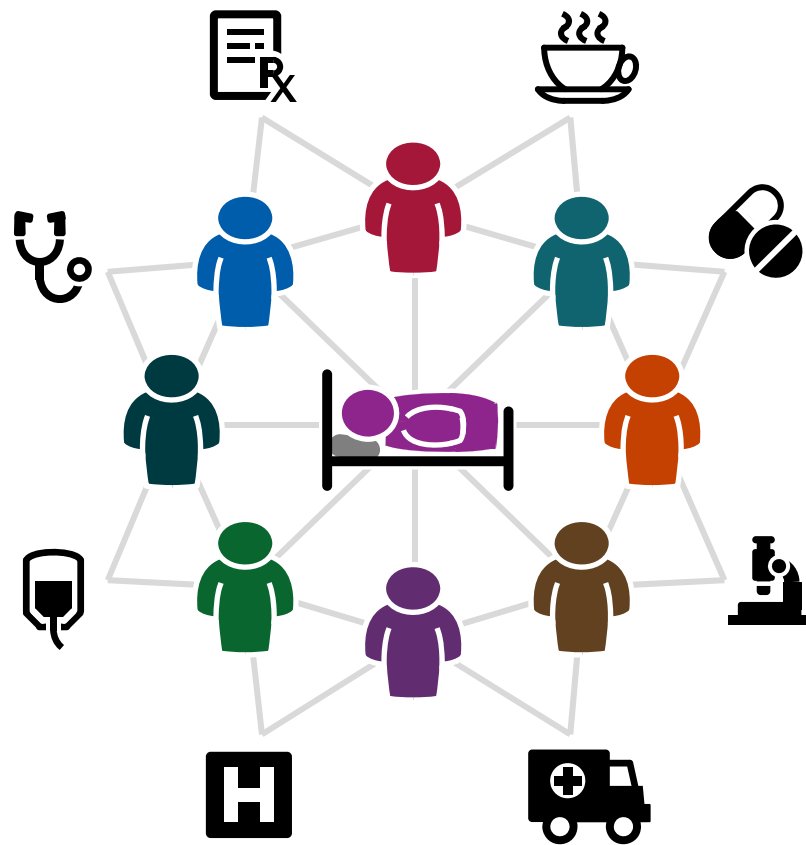


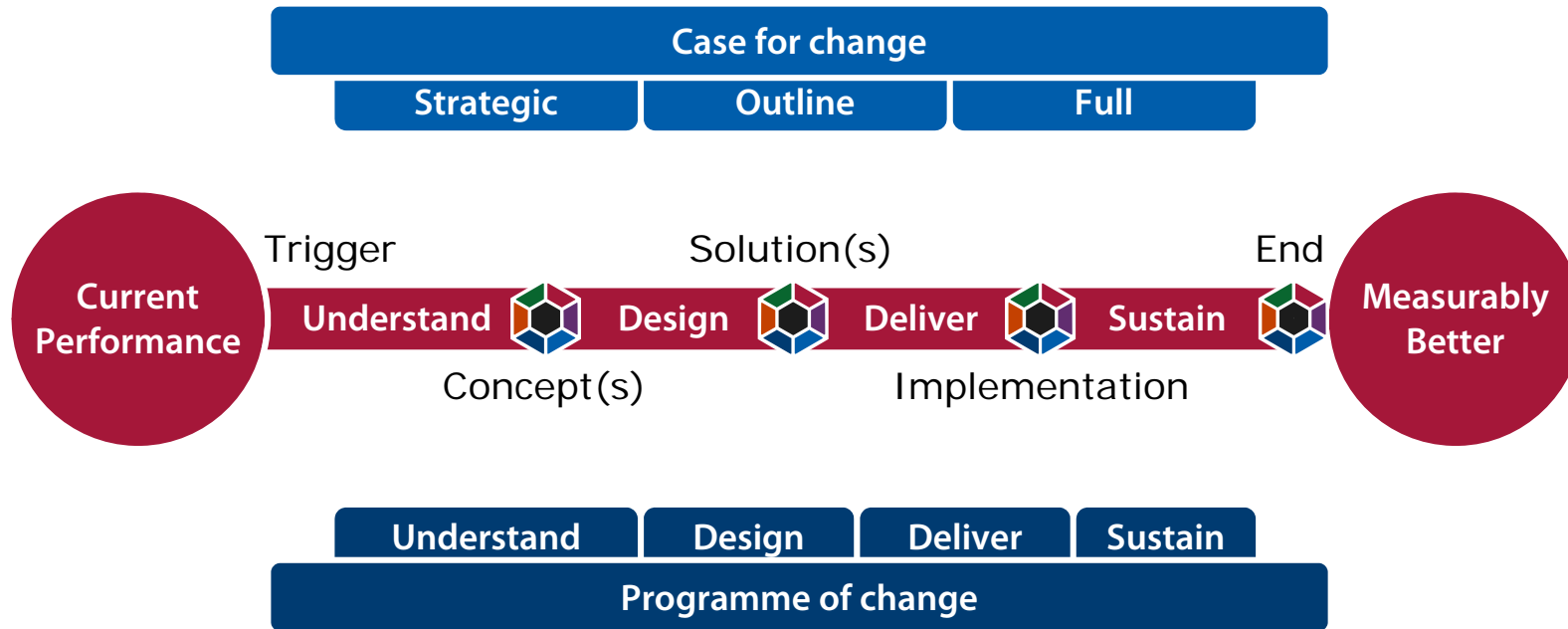
How can we do it better?

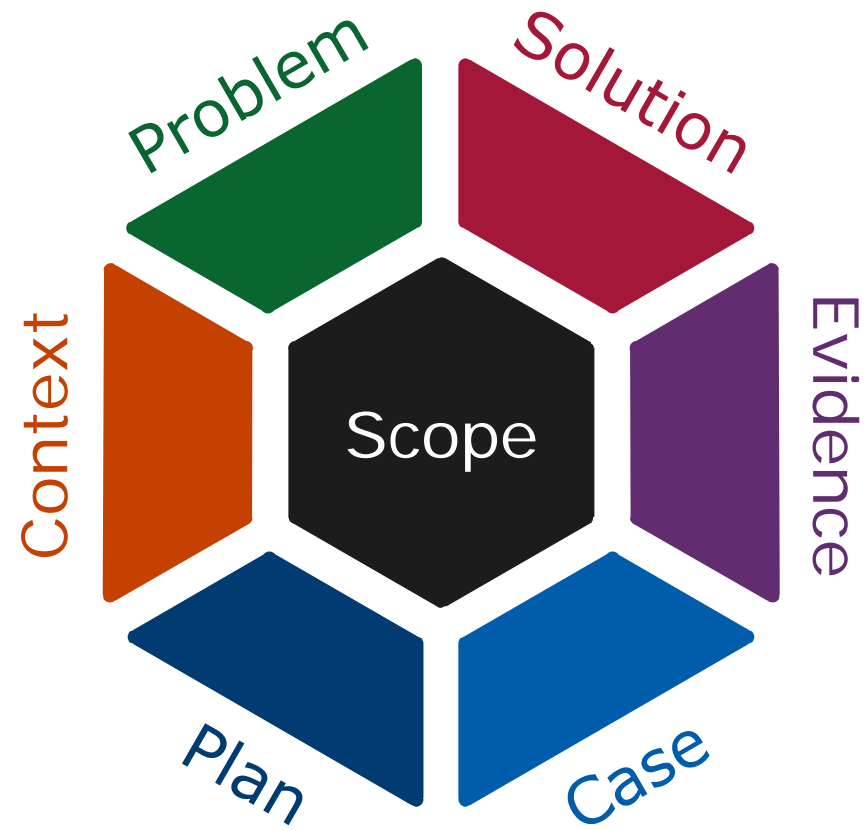


What could possibly go wrong?





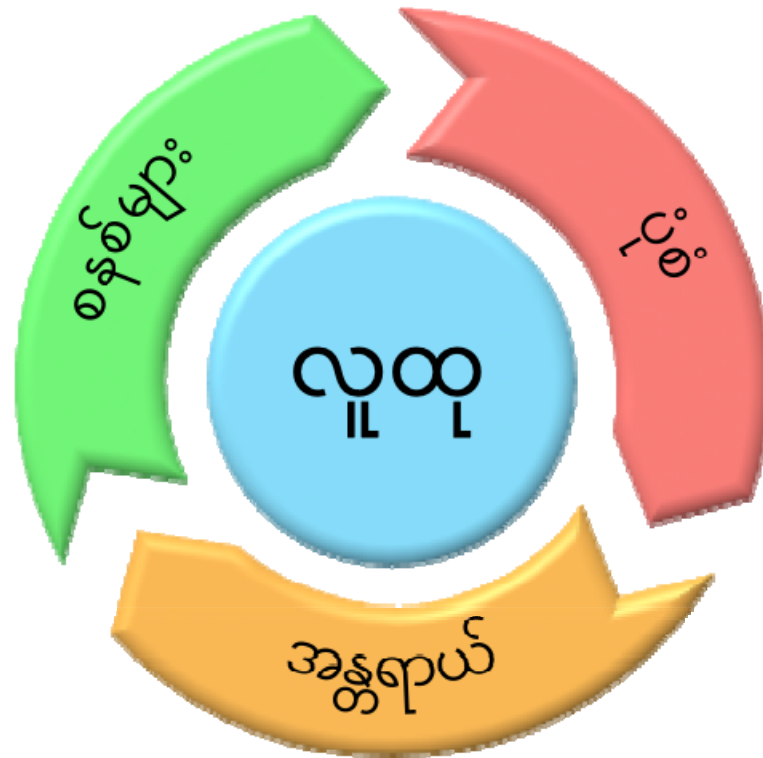












Challenges

- Language & construct
- Culture & context
- Politics & Power



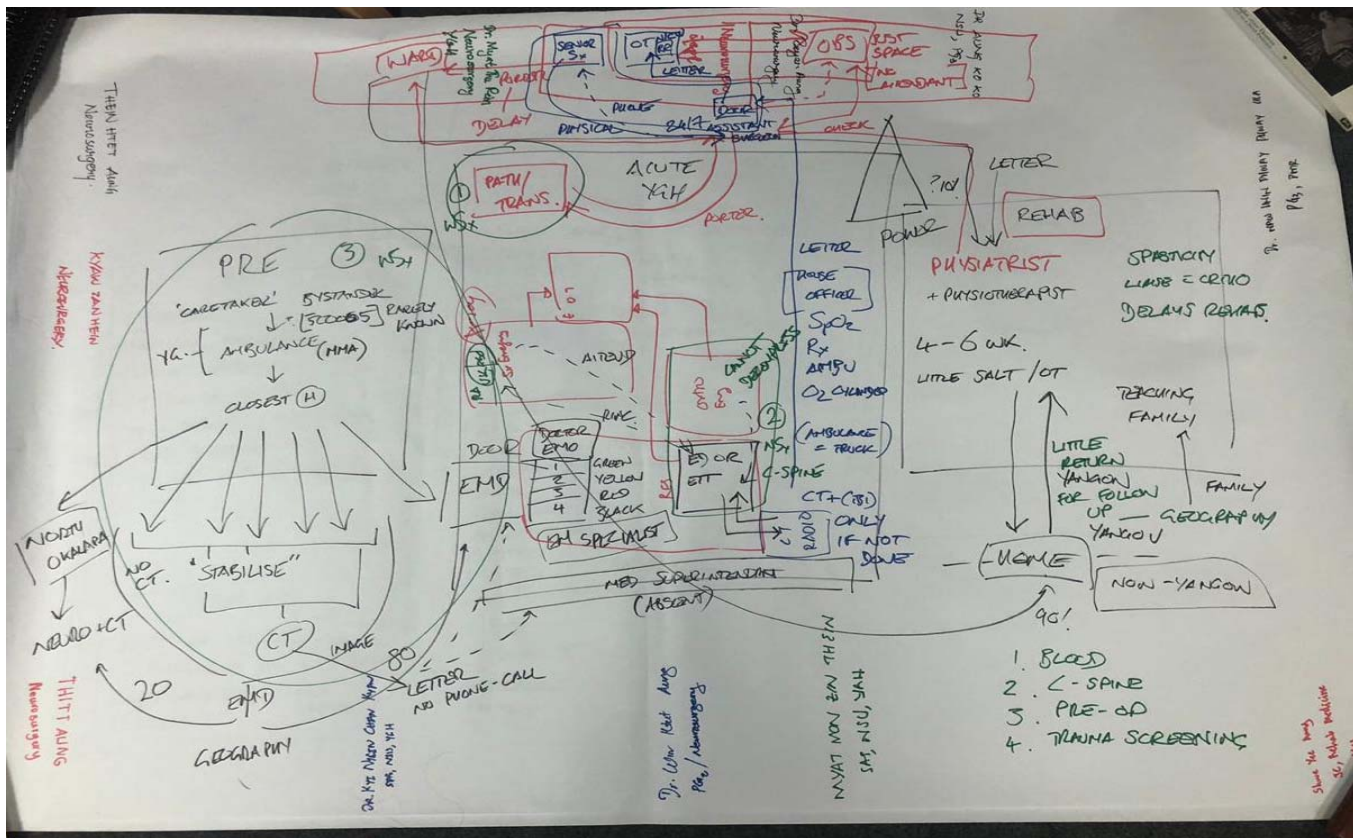
Response

- Clinical focus of TBI
- Qualitative research
- Participatory approach
- Embedded researchers
- Local leadership
- Longstanding partnership











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Open Sourcing

Name	Sources	References	Created On	Created By	Modified On	Modified By
CommunityCollege	1	1	4/26/2013 11:17 AM	SHJ	10/24/2014 5:01 PM	NV
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EmploymentOpportunitiesforLearners	6	12	4/25/2013 1:41 PM	SHJ	9/28/2014 4:04 PM	NV
GlobalAccess	43	161	4/25/2013 11:13 AM	SHJ	10/24/2014 5:01 PM	NV

Word Frequency Query Result 10.1007_978-3-642-03278-3_ DelphiMethodology x

Delphi protocol can be applied when a community of experts is required to deliver a consensual answer.

Reference 2 - 0.24% Coverage

an agreement among the experts about what the answer should be. This consensus reaching problem has been already considered in the literature, though its automatization remains as a challenge.

Reference 3 - 1.22% Coverage

The Delphi Process in general is not rigid and its structure depends on the situation. Looking for guidelines, this paper follows the steps and guidelines stated in [5]. The Delphi approach has been applied for several areas for different uses. For instance, Roth [31] used the Delphi approach for acquiring knowledge from multiple experts. Recently, Bryant [4] applied the Delphi method for estimating the risk factors of the terrestrial chemical spill, Hayes [13] did a Delphi study of the future of marketing of the higher education; Miró [21] applied the delphi method to reach consensus among professionals with interest in chronic pain among children and adolescents. The automatization of Delphi is considered first as a set of computers and software assisting human experts in the process. In this line, literature mentions DEMOS [19], which is an on-line discussion system based on Delphi, and Turo [34], who presents a Delphi method with computer assistance.

<Internals\DelphiResearch\10.1007_978-3-642-16373-9_20> - \$ 1 reference coded [0.18% Coverage]

Reference 1 - 0.18% Coverage

Schema matching, the identification of data elements that have the same meaning, is a critical step to ensure the success of database integration.

<Internals\DelphiResearch\10.1007_978-3-7908-2352-3_14> - \$ 3 references coded [1.21% Coverage]

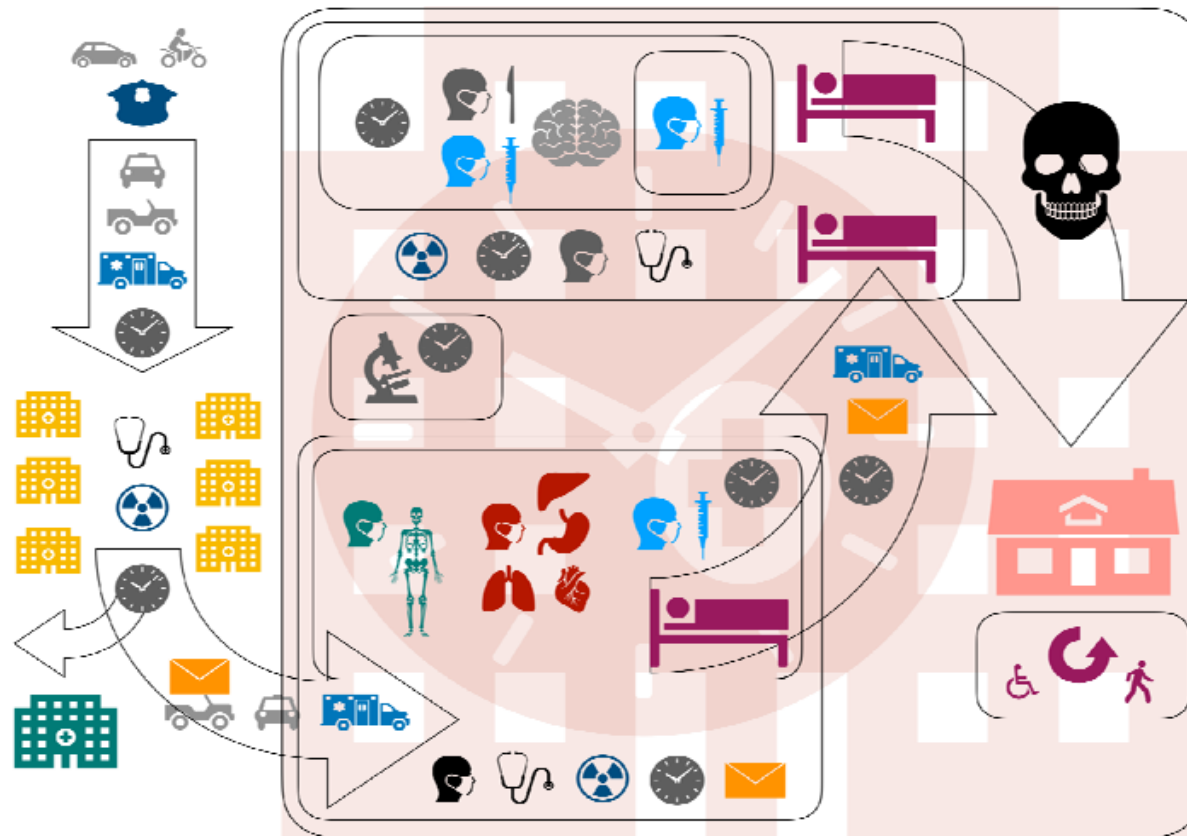
Reference 1 - 0.50% Coverage

The Delphi method is commonly used for future studies, and it utilizes experts, who are asked to evaluate different statements or hypotheses about the future.

Age
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Summary Reference Edit Video

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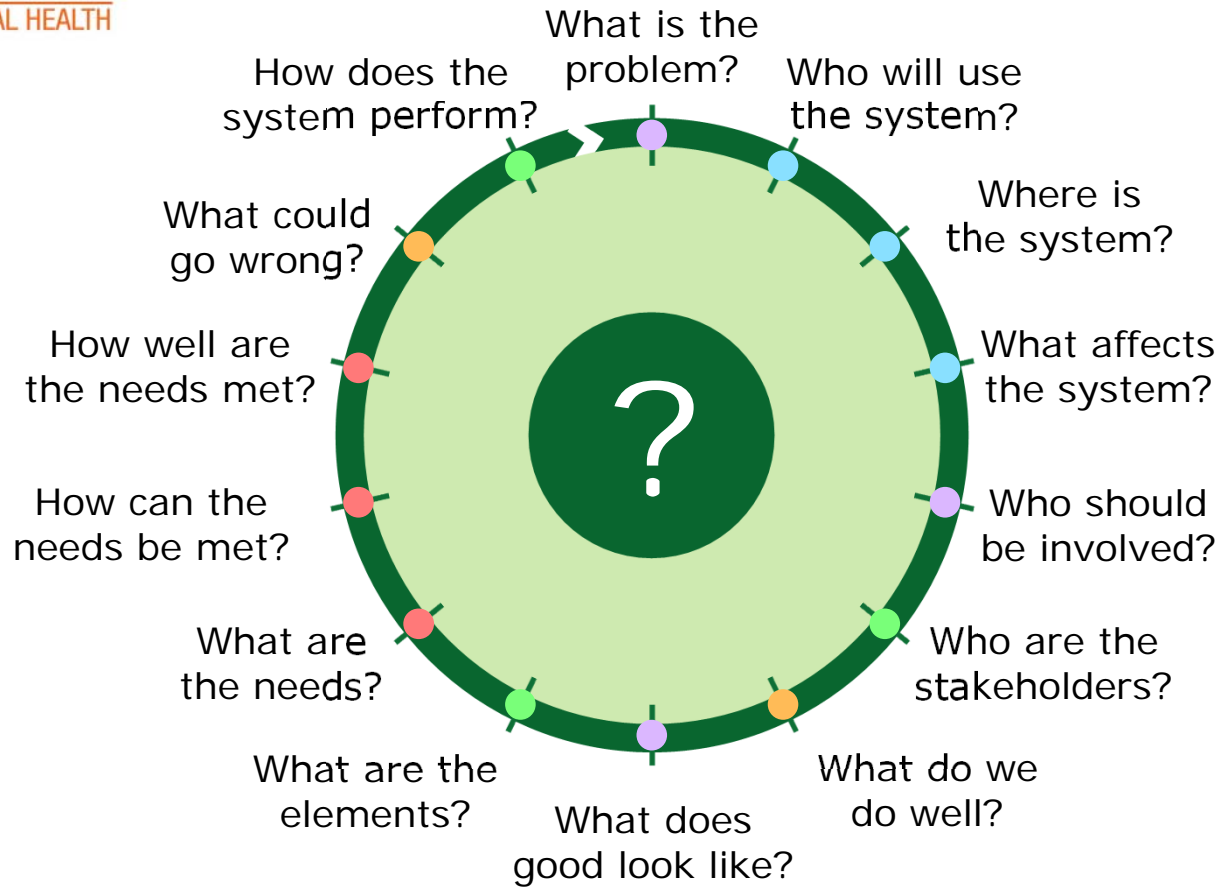














Systems Approach

“ If there’s mutual trust and a willingness on both sides to learn from each other, a readiness to adapt and a readiness to try new things then good work will happen”

Professor Sir Eldryd Parry - Founder of THET



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