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NHS
National Institute for Health Research

NIHR- Diagnostic Evidence Co-operative, London

at Imperial College

George Hanna

Oxford, 18th March 2014

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Vision

"Achieving excellence in point of care diagnostics from product design to patient benefits."

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Advisory Board

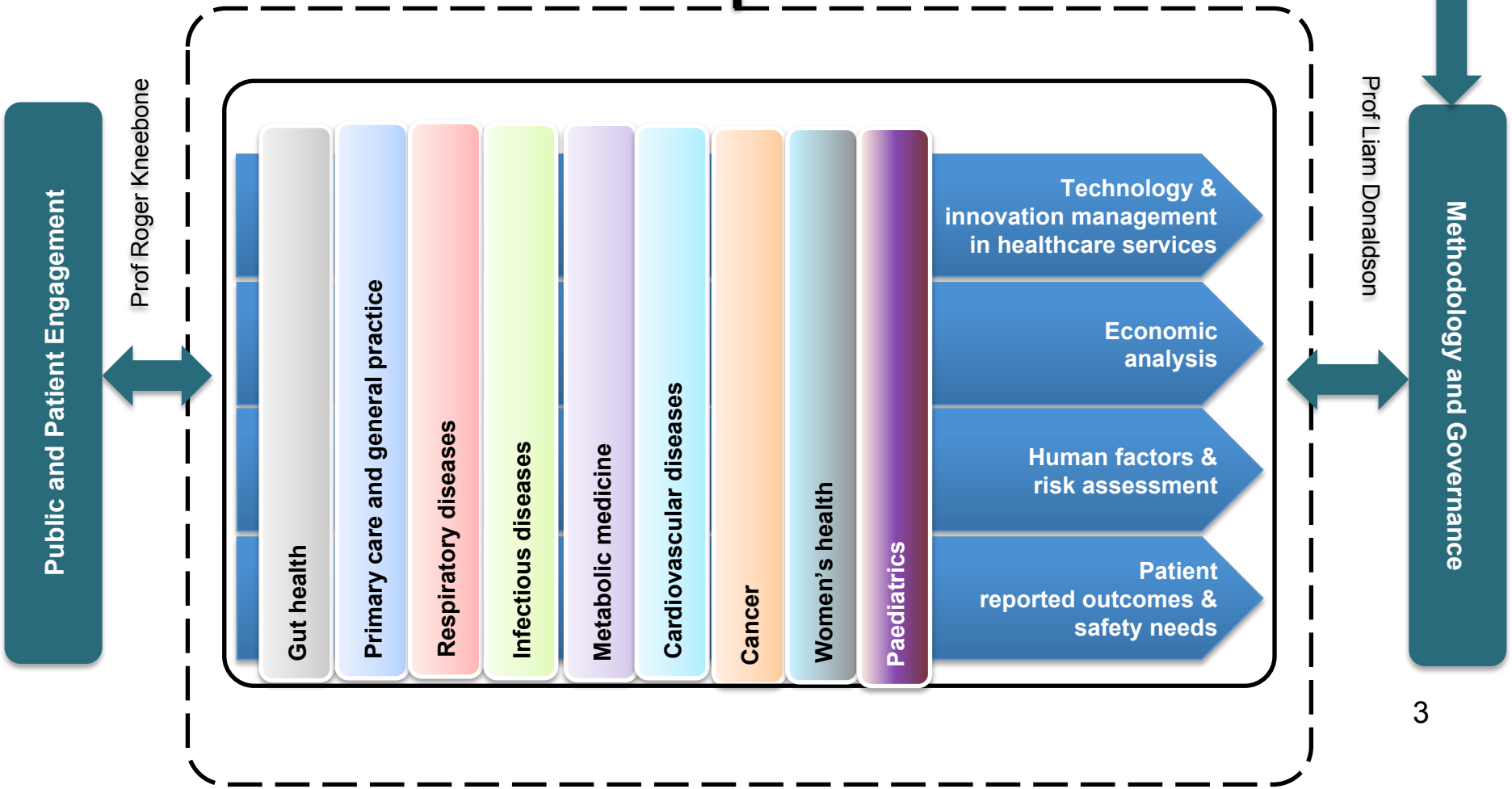
Prof Sir Alfred Cuschieri

Director

Prof George Hanna

Steering Committee (including strategic partners)

Professor Sir Liam Donaldson



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Objectives

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- Map available levels of evidence for existing POC-IVD
- Determine unmet clinical needs
- Generate evidence on clinical validity, utility, care pathway benefits and cost effectiveness
- Develop a “diagnostic research toolkit”
- Study the design specifications, impact on care pathway and safety requirements for home POC-IVD
- Investigate the challenges in scaling-up and barriers to implementations

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Mapping evidence	• Systematic reviews • Clinical needs assessment • Stakeholder analysis
Unmet needs	• Economic modelling • Decision Analysis
Design	• Requirements capture • Inclusive design • Human factors, ergonomics • Risk assessment, patient safety
Clinical assessment	• Clinical pathway modelling • Process mapping • Clinical validity, utility, RCT • Patient reported outcomes
Implementation	• Cost-effectiveness • Scaling-up • Barriers to implementation • Dissemination

"diagnostic research toolkit"

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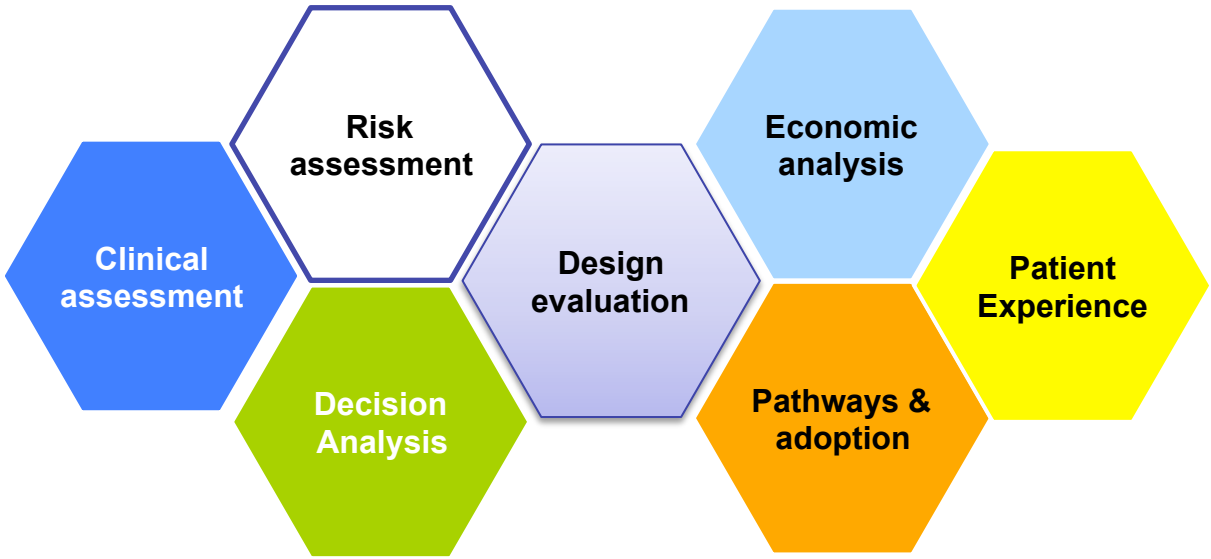

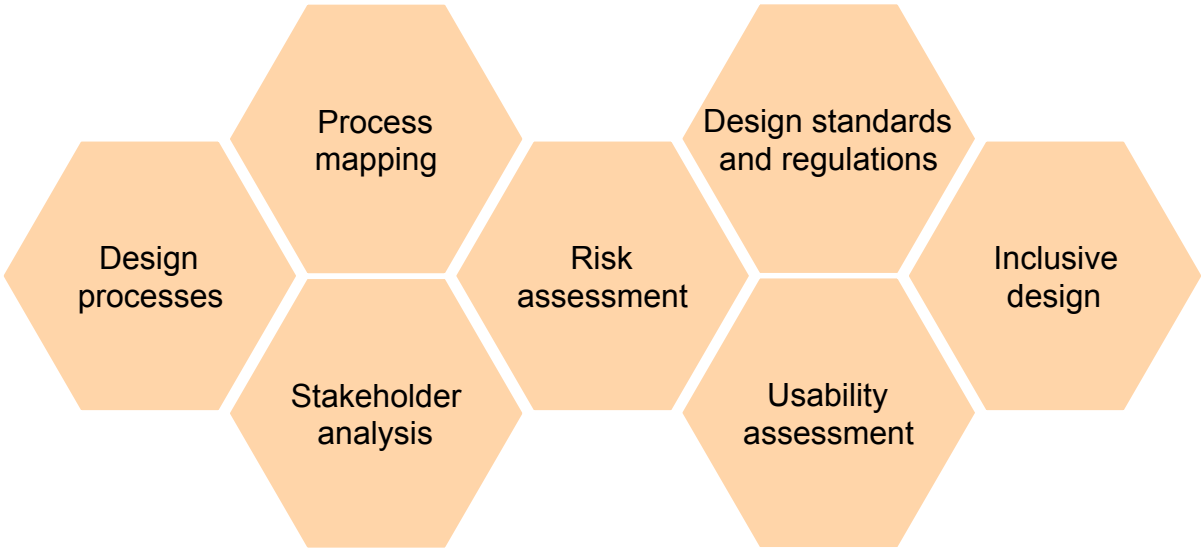
Process mapping
Design standards and regulations
Design processes
Risk assessment
Inclusive design
Stakeholder analysis
Usability assessment

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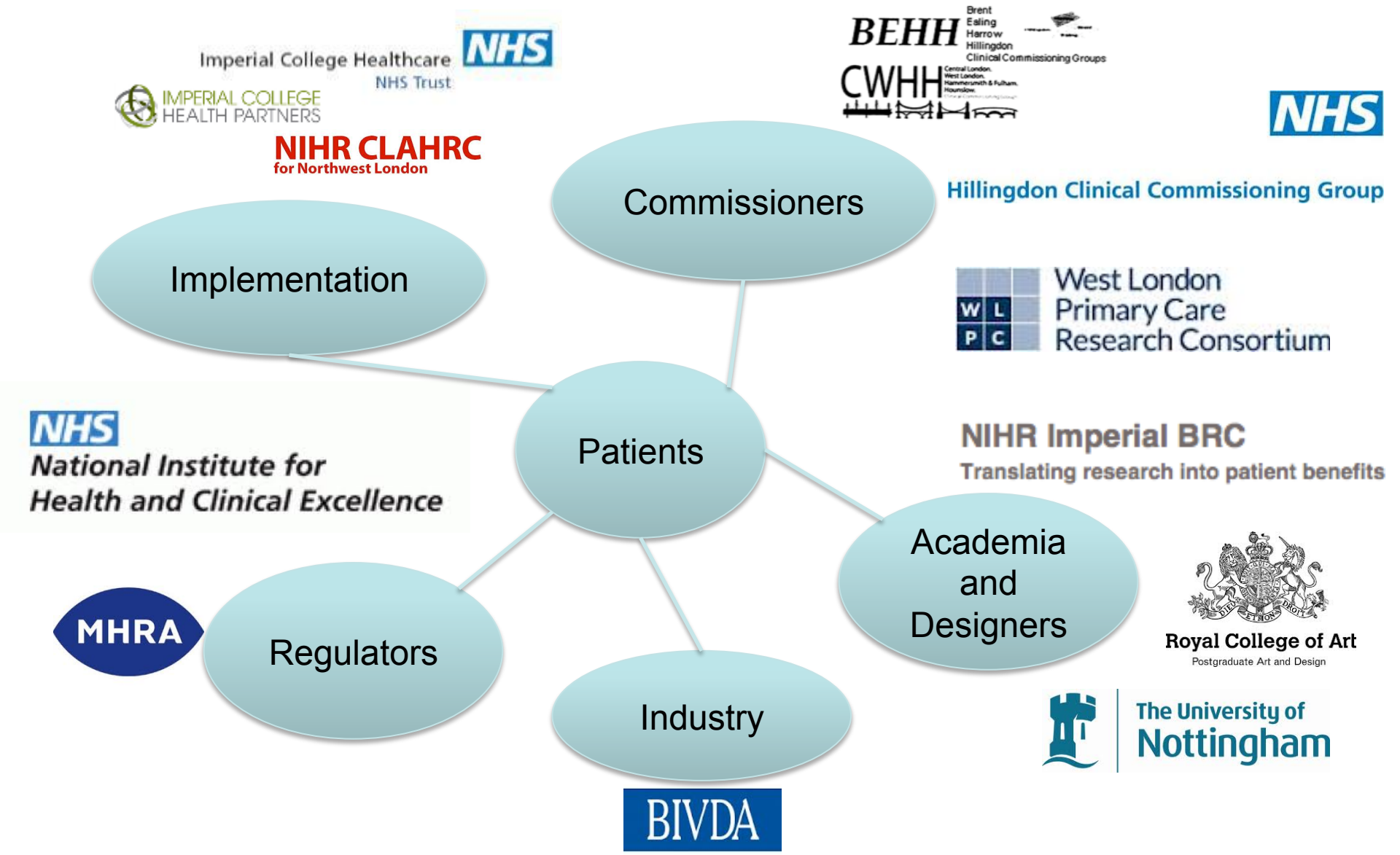
Industry collaboration

- DEC Business Manager to lead liaison with industry
- Costing model & governance structure for evaluation
- Shared funding applications
- Discussion / collaborations

Strategic partners



Team

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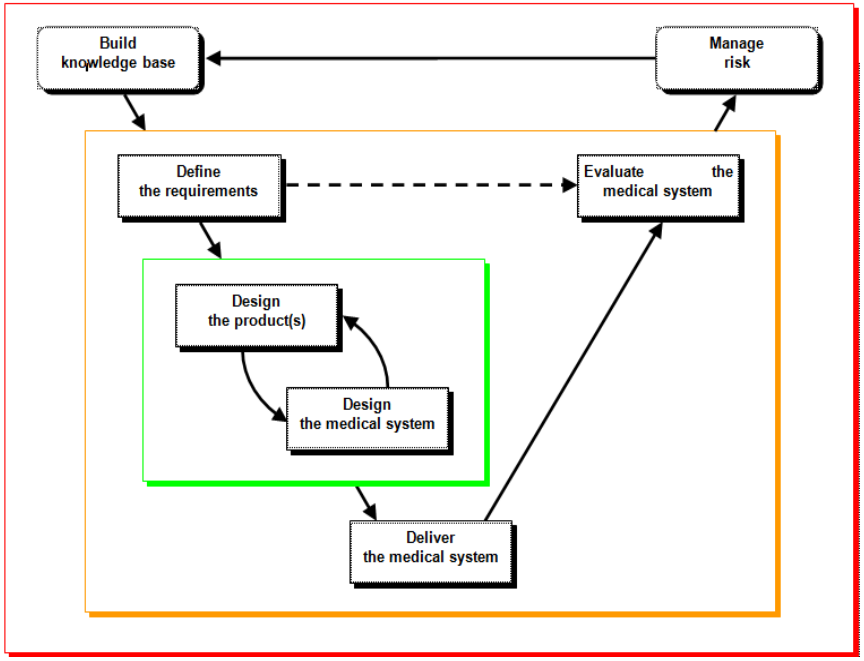
Design processes



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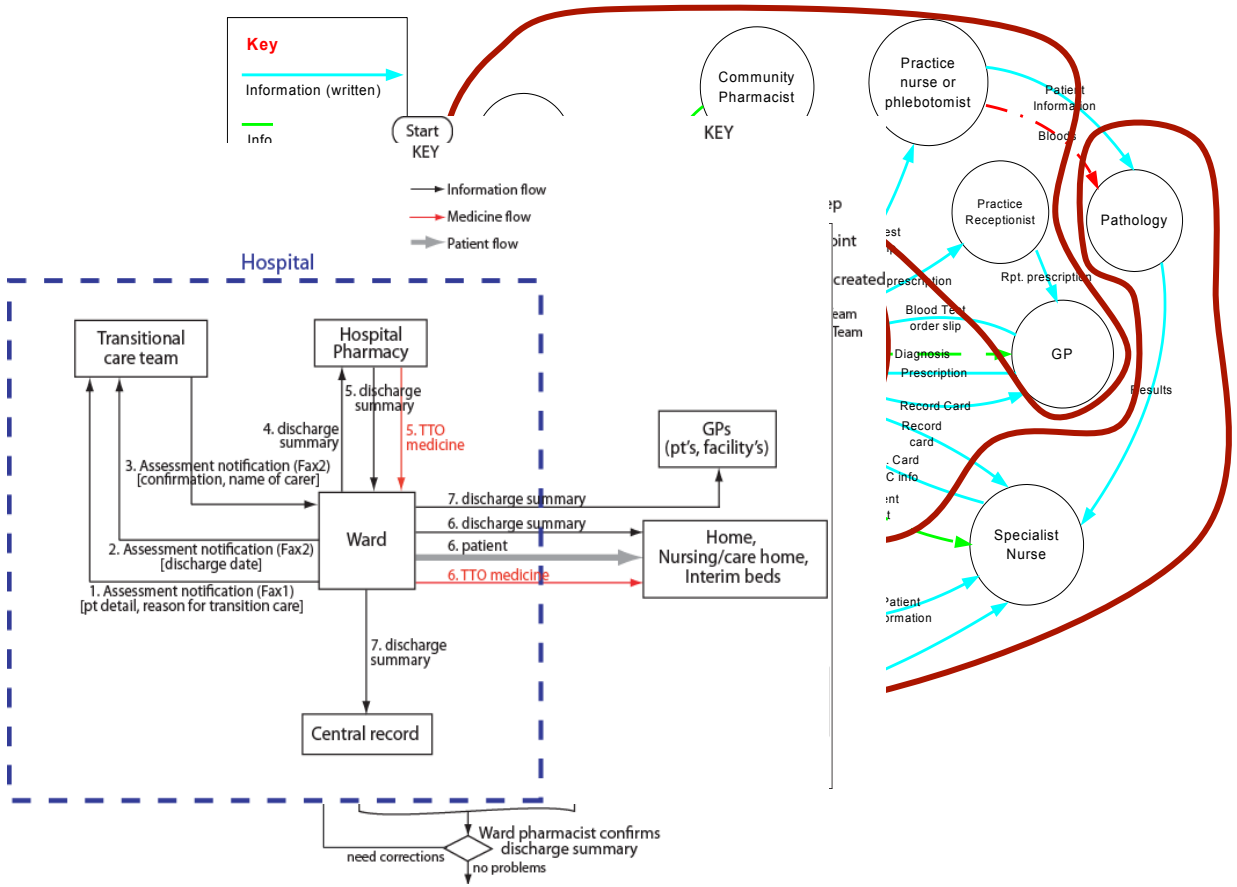
Process mapping



- to map the care system and the relationship/interactions between stakeholders
- to understand the system from the end user perspective (needs and aspirations) & healthcare perspective (e.g. *health & social care professionals*)

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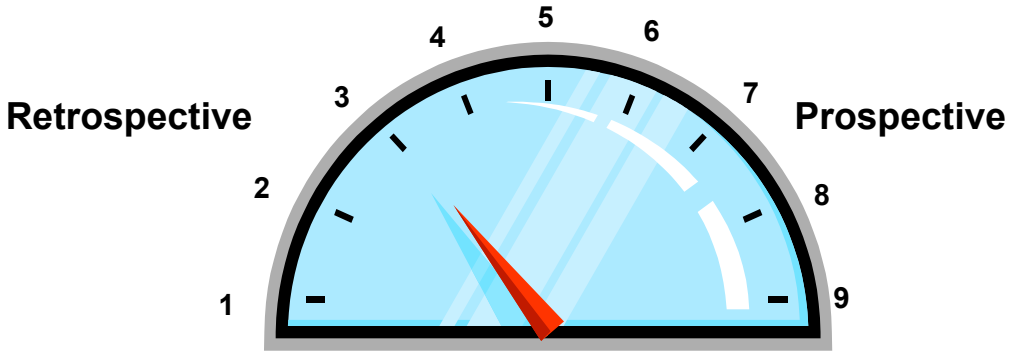
Risk assessment



- What can go wrong?
- (Why might it go wrong?)
- How likely is it to go wrong?
- How bad is it if it does go wrong?
- Should I do anything about it?
- What should I do about it?

SLIM-MAUD HEART
FMEA
HFMEA FMECA PHA
THERP HRMS HACCP APJ
CREAM HAZOP **SWIFT**
SHERPA
FTA ST-PRA ETA
TRACEr
PRA JHEDI
ATHEANA NARA

Decision Analysis

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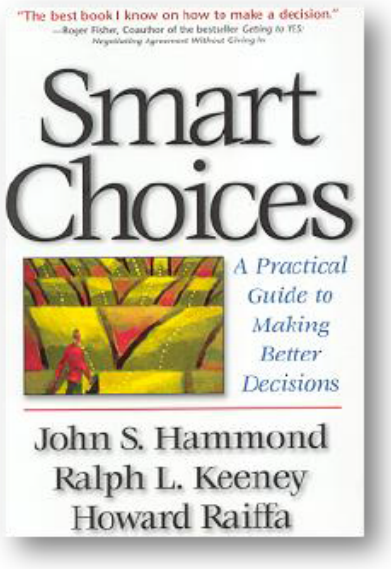
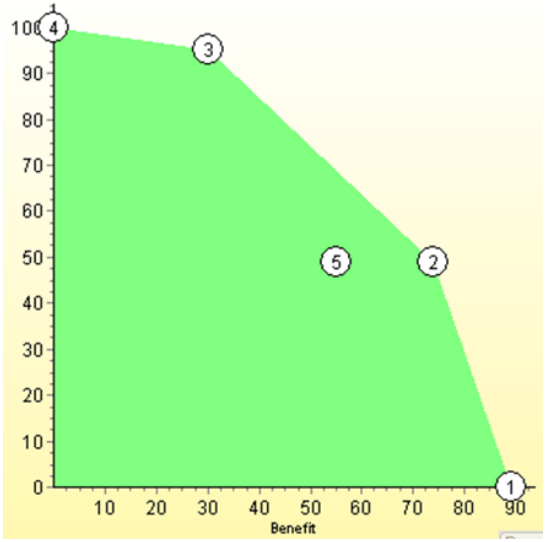


- Problem
- Objectives
- Alternatives
- Consequences
- Trade-offs
- Uncertainty
- Risk attitude
- Linked decisions



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