

The Affordability burden of poor Value Specification

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Summary

Proposition: failure to specify value properly at the outset of a project results in inevitable waste and affordability problems – we cannot afford to begin work without adequately specifying the value output required.

- Value Specification as the first step in the Lean methodology
- Case Study – Automotive Service Industry
- Case Study - Apache helicopter spares
- How do we specify value

- Conclusions – Value Specification as the essential first step

Value Specification: the first step in the Lean methodology

- Taichi Ohno's Toyota Production System
→ Lean Manufacturing → Lean Enterprise Methodology

- 5 Steps to eliminate waste:

- **Value Specification**
- Value Stream Mapping
- Achieve Flow
- Paced by a Pull signal
- Continuous Improvement



What does this mean?

- In continuous production = no. of Mk X items off the production line each day
- In a service industry? e.g. aftermarket care
- In discontinuous process? e.g. defence manufacturing
- In a one-off programme? e.g. 2012 Olympics

Reasons for poor Value Specification

- Lack of focus on Value Outcomes – specifying the wrong thing
- Poor Assumptions – specifying for the wrong future
- Lack of Trust/Confidence – loading the spec with unnecessary protections
- Not managing options – closing options too quickly, keeping them for too long

Case Study – Automotive Service Industry

At the Lean Enterprise Research Centre (Cardiff University) Hines et al (2002) studied a particular company in the automotive retail & service industry. Identified significant benefits, but only after great effort and only applicable to the specific firm that they studied.

The definition of value for a service business is problematic

- there is no physical product that embodies the value provided
- the range of intangible or subjective value outputs is potentially unlimited

For the automotive service industry, Kiff & Simons (2001) propose that the customer requirement is:

“...to achieve the return of their car within the time that it has been explicitly promised or is implicitly expected; and that the car has been fixed correctly on the first visit and that it will therefore not require a return visit. This can be expressed as:

Right first time on time”

Case Study – Automotive Service Industry

Kiff & Simons claim the only measure of performance used by this industry tends to be the measurement of parts availability from the national warehouse to a franchised dealer's warehouse. But service value delivery to the consumer is dependent on a wider range of activities:

- interactions between staff, process and the customer
- the skills of workshop personnel,
- their tools and processes,
- and the logistics by which multiple parts are ordered to maintain ready use stocks at affordable levels.

Kiff & Simons propose a Service Fulfilment Index that has been developed below:

•Chance of part being in stock		90%
•No. of parts required		3
•Probability of first time pick of parts	= 90% x 90% x 90%	= 73%
•Chance of job completed on time (assuming all parts available)		93%
•Overall chance that job is on time	= 73% x 93%	= 68%
•Chance of job being done right		92%
• Service Fulfilment Index	= 68% x 92%	= 63%

Simplistic measures of service value can give a misleading impression of real service value delivery.

Case Study – Apache Helicopter Spares

- Fixed Price Spares Support Contract
- Guarantee supply within 48 hrs
- Fixed time period (pilot training)

- Pilots not available to train on time
- Only 1/3 of planned flying hours
- Most spares not required
- Surplus passed to MoD, but ...
- ...not clear that the spares were the right ones they would ever need.

- Ended up robbing stored aircraft for spares while sitting on a large inventory of spares they did not need.



Perhaps this testimony is a clue?

Public Accounts Committee Report

6. The Department placed a fixed-price spares support contract with Westland to cover the guaranteed supply of Apache spares by the company within 48 hours of a request. The contract covered the period April 2000 to October 2002—the first 30 months after the helicopter was expected to enter service. In agreeing the contract, the Department's intention was to pass the risk of initial spares provisioning to the contractor and to learn lessons on usage to inform a subsequent longer-term spares arrangement.

7. The contractual arrangements did not maximise value for money, because the training problems in particular meant that flying rates over this period were about a third of those anticipated in the contract.

10. **Figure 2** summarises the outcome of the spares contract. In addition to the costs identified the Department will also have to bear the additional resource cost of holding the surplus spares. Nor is it clear whether the spares now held are items which the Department will need and why it now holds this high level of stock, given that Westland should have supplied any spare within 48 hours.

Figure 2: Outcome of the initial spares support contract

	£m
Spares used	10
Spares held by the Department	80
Spares for which ownership is to be agreed with Westland Helicopters Ltd	15
Service charge	5
Cost of new warehouse	2
Risk premium for Westland Helicopters Ltd.	8
Contract value (Fixed price)	120

PAC, (2003), Ministry of Defence: Building an Air Manoeuvre Capability: The introduction of the Apache helicopter, HC 533, 46th Report of Session 2002-2003: 27 October 2003

Although the cross examination of Sir Kevin Tebbitt (PUS) was hostile, his answers suggest a failure to understand how an excessive inventory is an expensive waste of money. Take question 61 as one concise example:

(Jon Trickett MP) It is arguable that the £95 million worth of spare parts currently unused is a direct result of those mistakes that you have just described, is it not?

(Sir Kevin Tebbitt) It is, but they are a benefit, not a loss. They sit there as ours.

But What is the Value?

NAO Major Projects Report

2013

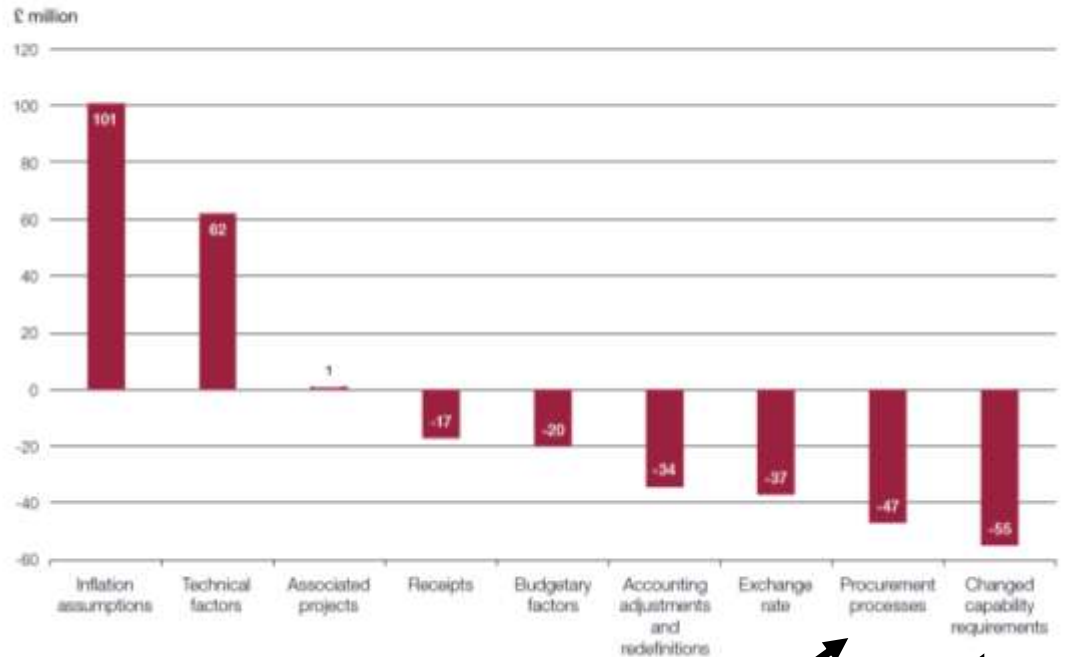
Specifying the wrong thing or failing to manage options at the right time is a major cost driver.

Risk provisions and commercial or procurement measures to compensate for lack of trust cost time and money.

Figure 2

Factors affecting cost increases, 2012-13, excluding Carriers

Changes to inflation assumptions were the biggest driver of cost increases during the year



Source: National Audit Office analysis of departmental data

The Department has made significant progress in reforming the cost of procurement and commercial process – reducing the cost of protections through collaboration and improving trust.

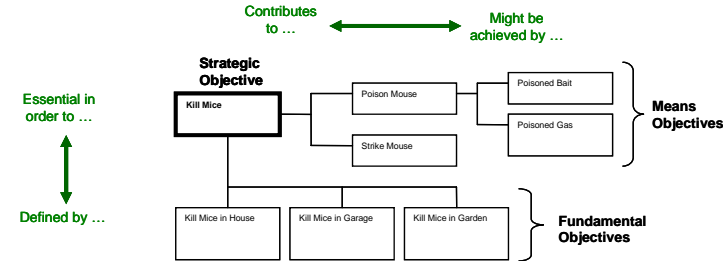
Whether a change increases or decreases cost, it illustrates that the requirement is a key driver of cost.

How to Specify Value (1/4)

- Focus on Value Outcomes
 - Ask “why is this necessary”
 - Often, understanding why leads to simpler alternatives to achieve the same thing
 - Tools:

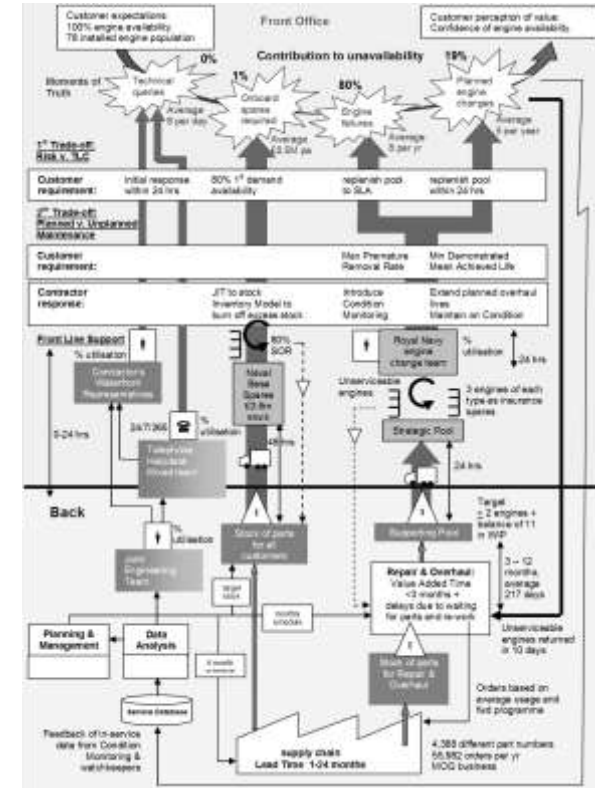
Objectives Hierarchies

– more structured, more powerful



The customer's journey

– Moments of Truth, Value Streams



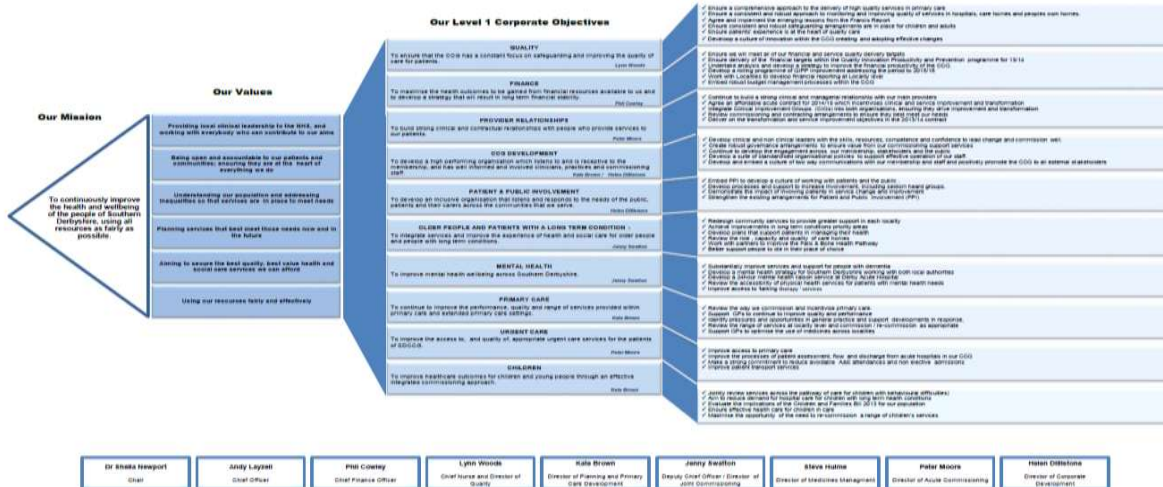
Hoshin Kanri

– less structured, more flexible

2013-14 CORPORATE OBJECTIVES (HOSHIN)

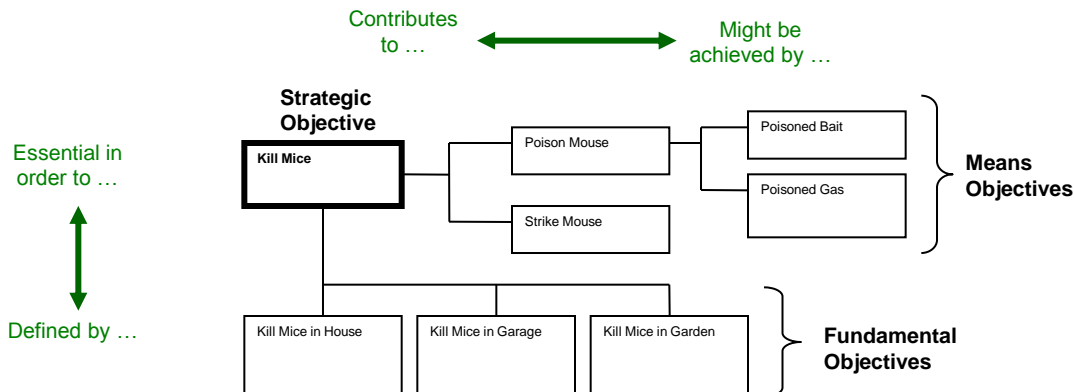
Purpose: The purpose of this document is to establish the clear link between the organisations statutory and commissioning priorities and our Mission and Values, the product of which will be interpreted each year into our annual Corporate Objectives as illustrated here. Each Corporate Objective is owned by a member of the Senior Management Team and this is known as a level 1 objective. Each of these in turn will then have a number of structured supporting objectives described as level 2, level 3 etc. Each of these will have an owner, and will have been discussed and agreed with this owner through the individuals appraisal process.

Hoshin means 'compass' or 'pointing the way' in Japanese.



Objectives Hierarchies

- Identify objectives
- Objectives are hierarchical
 - one thing is only essential as a contribution to something else
- Apply logical rules to test:
 - Are all the objectives really essential?
 - Are there missing objectives?
 - Are some objectives really options?
- Identify KPI's to measure achievement of objectives
 - Quantify success
- Keep under review and amend when perception of value changes



Hoshin Kanri

Hoshin means 'compass' or 'pointing the way' in Japanese, Kanri means 'management'.

2013-14 CORPORATE OBJECTIVES (HOSHIN)

Purpose: The purpose of this document is to demonstrate the clear link between the organisations statutory and commissioning priorities and our Mission and Values, the product of which will be interpreted each year into our annual Corporate Objectives as illustrated here. Each Corporate Objective is owned by a member of the Senior Management Team and this is known as a level 1 objective. Each of these in turn will then have a number of structured supporting objectives described as level 2, level 3 etc. Each of these will have an owner, and will have been discussed and agreed with this owner through the individuals appraisal process. Hoshin means 'compass' or 'pointing the way' in Japanese.



Our Level 2 Corporate Objectives

Our Level 1 Corporate Objectives

- ✓ Ensure a comprehensive approach to the delivery of high quality services in primary care
- ✓ Ensure a consistent and robust approach to monitoring and measuring quality of services in hospitals, care homes and people's own homes
- ✓ Agree and implement the emerging themes from the Francis Report
- ✓ Ensure consistent and robust safeguarding arrangements are in place for children and adults
- ✓ Ensure patient experience is at the heart of quality care
- ✓ Develop a culture of innovation within the CCG creating and adopting effective changes
- ✓ Ensure we meet all of our finance and service quality delivery targets
- ✓ Ensure delivery of the finance targets within the Quality Innovation Productivity and Prevention programme for 13/14
- ✓ Undertake analysis and develop a strategy to improve the finance productivity of the CCG
- ✓ Develop a rolling programme of CIPP improvements addressing the period to 2015/16
- ✓ Work with Localities to develop financial reporting at Locality level
- ✓ Embed robust budget management processes within the CCG
- ✓ Continue to build a strong clinical and managerial relationships with our main providers
- ✓ Agree an alternative acute contract for 2014/15 which incentivises clinical and service improvement and transformation
- ✓ Integrate Clinical Improvement Groups (CIGs) into both negotiations, ensuring they drive improvement and transformation
- ✓ Review commissioning and contracting arrangements to ensure they help meet our needs
- ✓ Deliver on the transformation and service improvement objectives of the 2013/14 contract
- ✓ Develop clinical and non clinical leaders with the skills, resources, competence and confidence to lead change and commission well
- ✓ Create robust governance arrangements to ensure value from our commissioning support services
- ✓ Continue to develop the engagement series, our meetings, chat channels and the radio
- ✓ Develop a suite of standardised organisational policies to support effective operation of our staff
- ✓ Develop and embed a culture of two way communications with our contractor and staff and positively promote the CCG to an external stakeholders
- ✓ Embed PPI to develop a culture of working with patients and the public
- ✓ Develop processes and support to increase involvement, including patient focus groups
- ✓ Communicate the impact of involving citizens in service change and transformation
- ✓ Streamline the existing arrangements for Patient and Public Involvement (PPI)
- ✓ Redesign community services to provide greater support in each locality
- ✓ Adopted improvements in long term conditions priority areas
- ✓ Develop plans that support patients in managing their health
- ✓ Review the cost, flexibility and quality of care homes
- ✓ Work with carers to improve the PPI & Blue Health Pathway
- ✓ Better support people to die in their place of choice
- ✓ Substantially improve services and support for people with dementia
- ✓ Develop a mental health strategy for Southern Derbyshire working with both local authorities
- ✓ Develop a robust mental health support service at Derby acute hospital
- ✓ Review the accessibility of primary health services for patients with mental health needs
- ✓ Improve access to talking therapy services
- ✓ Review the way we commission and incentivise primary care
- ✓ Support GPs to continue to improve quality and performance
- ✓ Identify pressures and opportunities to general practice and support developments in response
- ✓ Review the range of services at locality level and commission / re-commission as appropriate
- ✓ Support GPs to optimise the use of medicines across locality
- ✓ Improve access to primary care
- ✓ Improve the processes of patient assessment, flow and discharge from acute hospitals in our CCG
- ✓ Make a strong commitment to night services, A&E attendances and non elective admissions
- ✓ Improve patient transport services
- ✓ Jointly review services across the pathway of care for children with behavioural difficulties
- ✓ Aim to reduce demand for hospital care for children with long term health conditions
- ✓ Evaluate the implications of the Children and Families Bill 2014 for our population
- ✓ Ensure effective health care for children in care
- ✓ Maximise the opportunity, if the need to re-commission a range of children's services

Our Values

- Providing local clinical leadership to the NHS, and working with everybody who can contribute to our aims
- Being open and accountable to our patients and communities; ensuring they are at the heart of everything we do
- Understanding our population and addressing inequalities so that services are in place to meet needs
- Planning services that best meet those needs now and in the future
- Aiming to secure the best quality, best value health and social care services we can afford
- Using our resources fairly and effectively

Our Mission

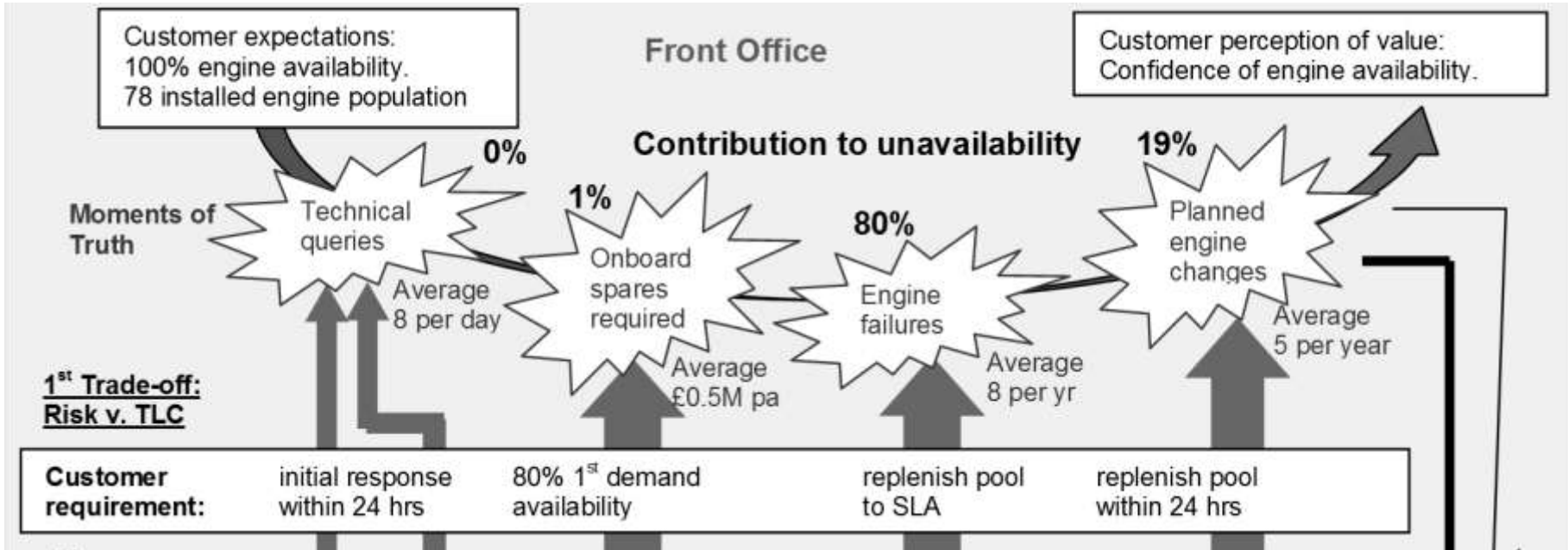
To continuously improve the health and wellbeing of the people of Southern Derbyshire, using all resources as fairly as possible.

QUALITY	To ensure that the CCG has a consistent focus on safeguarding and improving the quality of care for patients. <i>Sam Wood</i>
FINANCE	To maximise the health outcomes to be gained from financial resources available to us and to develop a strategy that will result in long term financial stability. <i>Phil Cowley</i>
PROVIDER RELATIONSHIPS	To build strong clinical and contractual relationships with people who provide services to our patients. <i>Phil Wood</i>
CCG DEVELOPMENT	To develop a high performing organisation which listens and is responsive to the membership, and has well informed and involved clinicians, practice and commissioning staff. <i>Ray Brown / Helen Dibbotts</i>
PATIENT & PUBLIC INVOLVEMENT	To develop an inclusive organisation that listens and responds to the needs of the public, patients and their carers across the communities that we serve. <i>Helen Dibbotts</i>
OLDER PEOPLE AND PATIENTS WITH A LONG TERM CONDITION	To integrate services and improve the experience of health and social care for older people and people with long term conditions. <i>Jenny Swallon</i>
MENTAL HEALTH	To improve mental health outcomes across Southern Derbyshire. <i>Jenny Swallon</i>
PRIMARY CARE	To continue to improve the performance, quality and range of services provided within primary care and extended primary care settings. <i>Steve Hulme</i>
URGENT CARE	To improve the access to, and quality of, appropriate urgent care services for the patients of SDCCG. <i>Phil Wood</i>
CHILDREN	To improve healthcare outcomes for children and young people through an effective integrated commissioning approach. <i>Ray Brown</i>

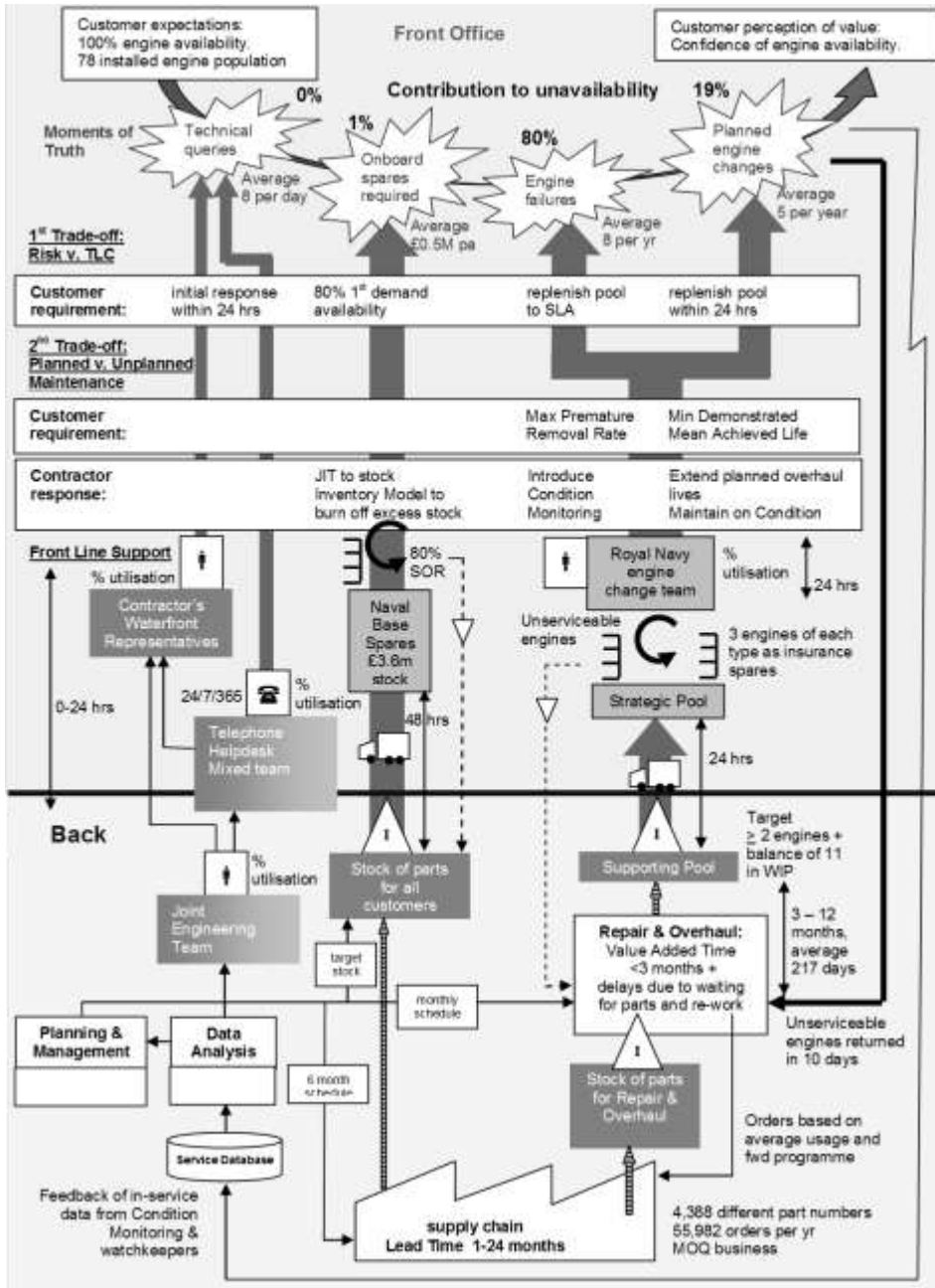
Dr Shaba Newport Chair	Andy Layton Chief Officer	Phil Cowley Chief Finance Officer	Lynn Woods Chief Nurse and Director of Quality	Ray Brown Director of Planning and Primary Care Development	Jenny Swallon Deputy Chief Officer / Director of Joint Commissioning	Steve Hulme Director of Medicines Management	Peter Moors Director of Acute Commissioning	Helen Dibbotts Director of Corporate Development
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Moments of Truth

*The customer's experience of the product, service or contract
Like a journey with a number of key events*



Moments of Truth – and Value Stream mapping



For this type of service mapping

Womack, J.P. & Jones, D.T. (2002), *Seeing the Whole: Mapping the Extended Value Stream*, Lean Enterprise Institute, Brookline, ISBN: 0-9667843-5-9

is more useful than

Rother, M. & Shook, J. (1999), *Learning to See*, version 1.2, The lean Enterprise Institute, Brookline, Massachusetts, USA,.

How to Specify Value (2/4)

- Test Assumptions
 - Identify assumptions (often implicit or hidden)
 - Prioritise
 - Devise low cost, low risk experiments to test assumptions...
 - ...make them “more fact”
 - Be prepared to change as assumptions are found to be wrong



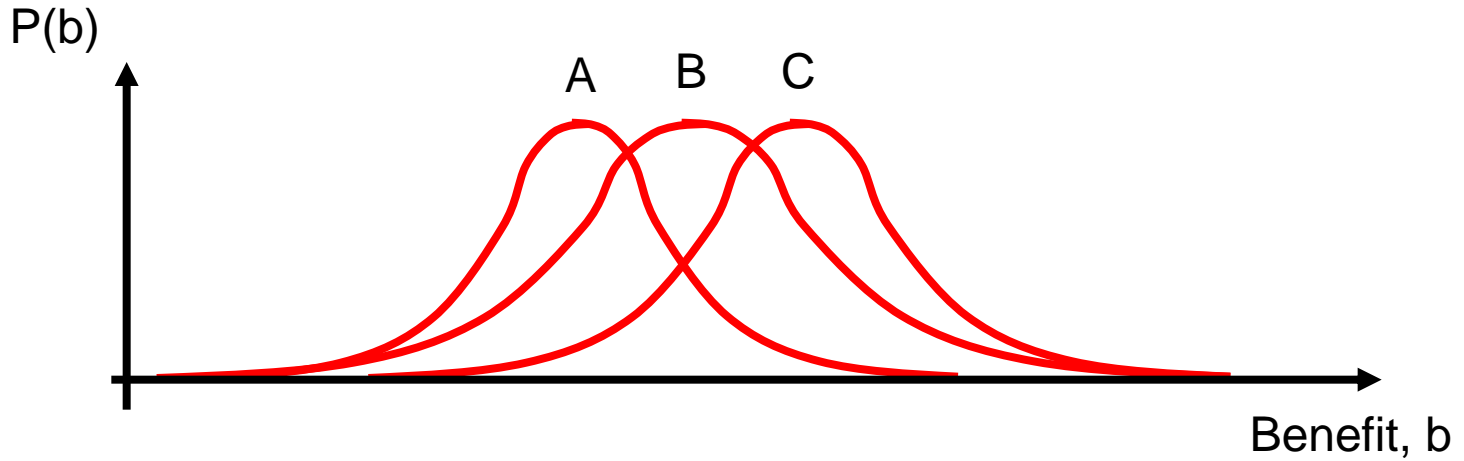
How to Specify Value (3/4)

- Manage Options
- Options cost money to maintain...
- ...but closing options too early leads to missed opportunities

- Financial Investors turn options into a science – a “Real Option” is the right — but not the obligation — to undertake some initiative
 - “Call” option to buy
 - “Put” option to sell
- Real options analysis is applied to decision making under uncertainty in general, adapting the techniques developed for financial options to "real-life" decisions

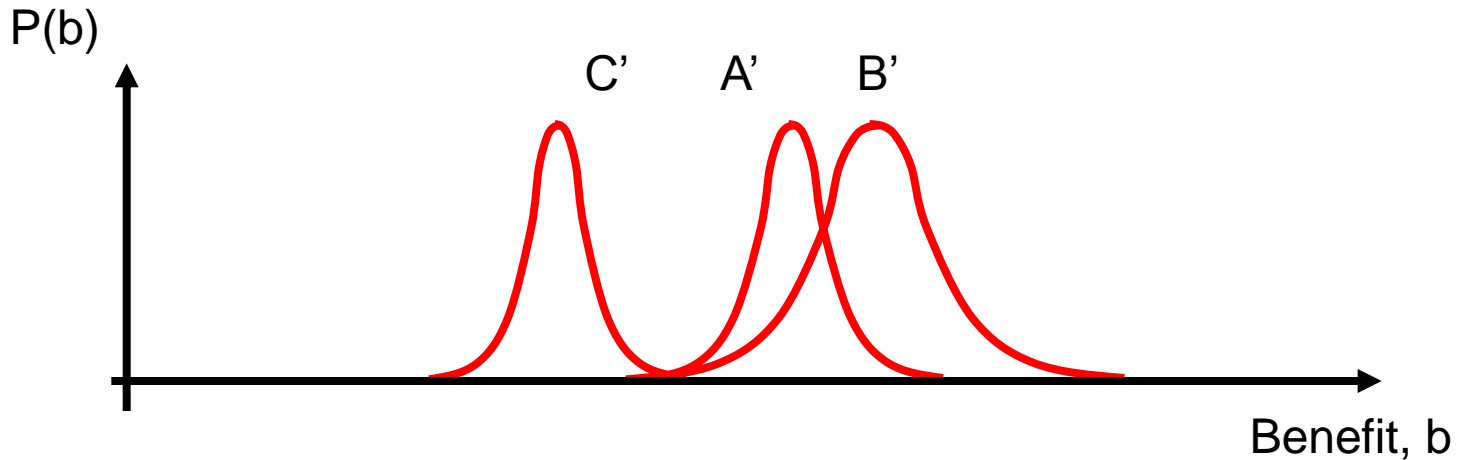
- Need to value options – trade between the potential benefits of an option relative to the alternatives and the cost of maintaining that option
- Valuation of options will depend on assumptions
- Options need to be re-evaluated as assumptions are updated

Options and Assumptions



3 options in the presence of uncertainty

By testing assumptions we can reduce uncertainty and reduce the number of options we spend money on



Multiple Criteria Decision Analysis (MCDA)

- But how to evaluate options on multiple valuation criteria?
- Back to the Objectives Hierarchy!
- Weight the objectives or outcome measures for relative importance.
- Create a value scale to measure the relative value of the predicted outcome for each option

- Scoring: 1 Slightly more important
 2 Moderately more important
 3 Significantly more important

Pairing analysis can be used to weight KPI's for relative importance towards the strategic objective.

Ideally, these scores should be identified by the key stakeholders. This example is intended to be illustrative only.

List the lower level fundamental objectives with their measurable attributes (metrics) as the KPI's for the Enterprise

	A	B	C	D	E	F	G	H	I	J	K	L	Weights
A	A	B1	A2	A2	A2	A1	A2	A3	A3	A3	A3	A3	18%
B		B	B3	B3	B3	B3	B3	B3	B3	B3	B3	B3	23%
C			C	D1	C1	0	C1	C2	C3	C3	C3	C2	11%
D				D	0	D1	D3	D3	D3	D3	D3	D2	13%
E					E	F1	G1	E1	E2	E2	E2	E2	7%
F						F	F1	F3	F3	F3	F3	F3	13%
G							G	G1	G2	G2	G2	G2	8%
H								H	I1	0	0	L1	1%
I									I	J1	0	L1	1%
J										J	K1	L1	1%
K											K	L1	1%
L												L	4%

Balanced Scorecard

KPI	Example metrics	weight	Performance										Current	Value Score
			Min	1	2	3	4	5	6	7	8	9		
KPI A	No.	18%	1	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3	0.9
KPI B	Days	23%	0	107	149	167	176	180	189	198	218	264	365	2.3
KPI C	No.	11%	1	2.4	3.1	3.5	3.8	4.2	4.5	4.8	5.0	5	0.2	
KPI D	Days	13%	0	27	39	46	51	55	62	71	90	136	365	0.3
KPI E	No.	7%	1	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	0.7
KPI F	No.	13%	0	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.04	0.04	0.05	0.2
KPI G	Rate	8%	1	1.76	2.04	2.14	2.25	2.33	2.57	3				0.0
KPI H	No.	1%	0	31.6	43.3	47.6	52.4	56.8	68.4	100				0.0
KPI I	%	1%	0	31.6	43.3	47.6	49.2	50.0	50.8	52.4	56.8	68.4	100	0.0
KPI J	%	1%	0	31.6	43.3	47.6	49.2	50.0	50.8	52.4	56.8	68.4	100	0.0
KPI K	%	1%	0	31.6	43.3	47.6	49.2	50.0	50.8	52.4	56.8	68.4	100	0.0
KPI L	No.	4%	8	10.4	11.4	11.8	12.0	12.3	12.5	13.0	14.2	17.1	20	0.0

Scale performance to score between 0 and 10

Baseline current performance

Multiply performance score (out of 10) by weighting % to get a dimensionless value score for the baseline

Future performance and options for change can be compared against the baseline and each other using this score

How to Specify Value (4/4)

- Develop Trust
- Without trust - loading the spec with unnecessary protections and non-value adding costs:
 - Negotiation
 - takes longer
 - More rigid contracts - tend to increase price and/or restrict scope
 - Less scope for collaborative behaviour – flexibility, win-win
 - Insurance
 - risk premiums, damages, complex pricing, too many options
 - Specification
 - Inflexible scope with narrow definitions, expensive variations
 - Customer less likely to listen to supplier advice
 - Less likely to consider all stakeholders
- Trust requires long term relationships with:
 - Consistent behaviours
 - Shared values and objectives (the techniques above can help with this!)
 - Openness and honesty – even with the hard truths
 - Mature response to bad news
 - From all parties

Conclusion

- **Value Specification – the 1st step**
- Cut waste before muscle and bone
- Be sure we are ordering what is needed...
- ...and not ordering anything that isn't!