EVO:

THE MOST ADVANCED AGILE PROCESS, FOCUSSING ON MEASURABLE DELIVERY OF BENEFITS, QUALITIES AND RESULTS

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https://www.gilb.com/p/competitive-engineering

12:10-12:40 Wednesday 11 Oct 2017
ABE Conference, Warsaw
by

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Evo: The Most Advanced Agile Process, focussing on measurable delivery of benefits, qualities and results

Agile as practiced today is perhaps good for delivering code functions faster. But the main point of our projects is to deliver critical factor improvements. Not code!
This requires requirements quantification of all such improvements, all qualities, all values, all management objectives ('Planguage'). We then need an architecture process, to identify designs or strategies, to deliver these values and qualities. We then need a method ('Impact Estimation Tables') to estimate the cost-effectiveness of the architectures and strategies, so we can prioritize their delivery sequence. We also need methods of decomposition of the strategies/architectures into value delivery steps (like Scale Parameters and IET Cells).
All this, and more, amounts to an 'engineering' approach, rather than a 'programming' approach to projects.
I am wondering if my European and Polish friends are ready to step in where American pop marketing culture has failed; and make 'agile' a serious discipline for delivering results? 'Agile Engineering', anyone?

"THESE SPECULATIONS OF NOTHING SERVE.

ORDER AND METHOD WILL BE OUR GUIDES."

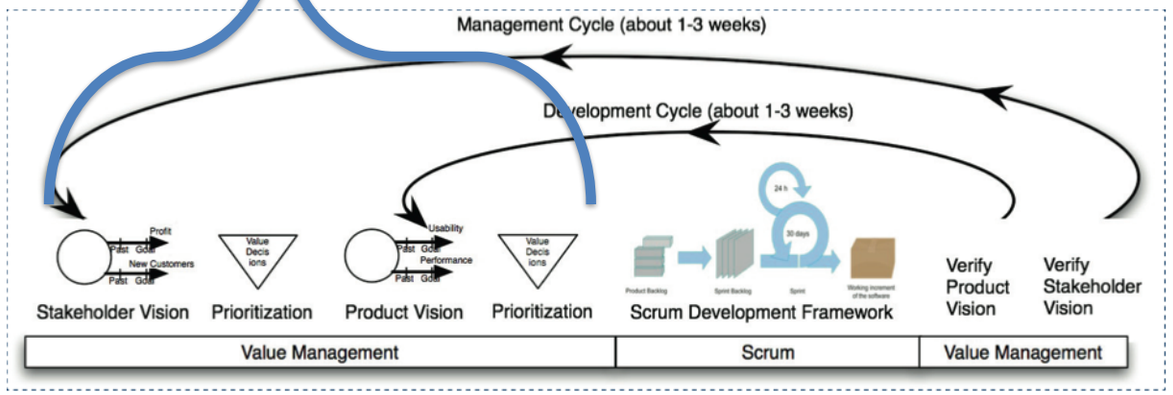
POIROT

https://www.springfieldspringfield.co.uk/view_episode_scripts.php?tv-show=agatha-christies-poirot-1989&episode=s03e09

In The Mysterious Affair at Styles, Poirot operates as a fairly conventional, clue-based and logical detective; reflected in his vocabulary by two common phrases: his use of "the little grey cells" and "order and method".

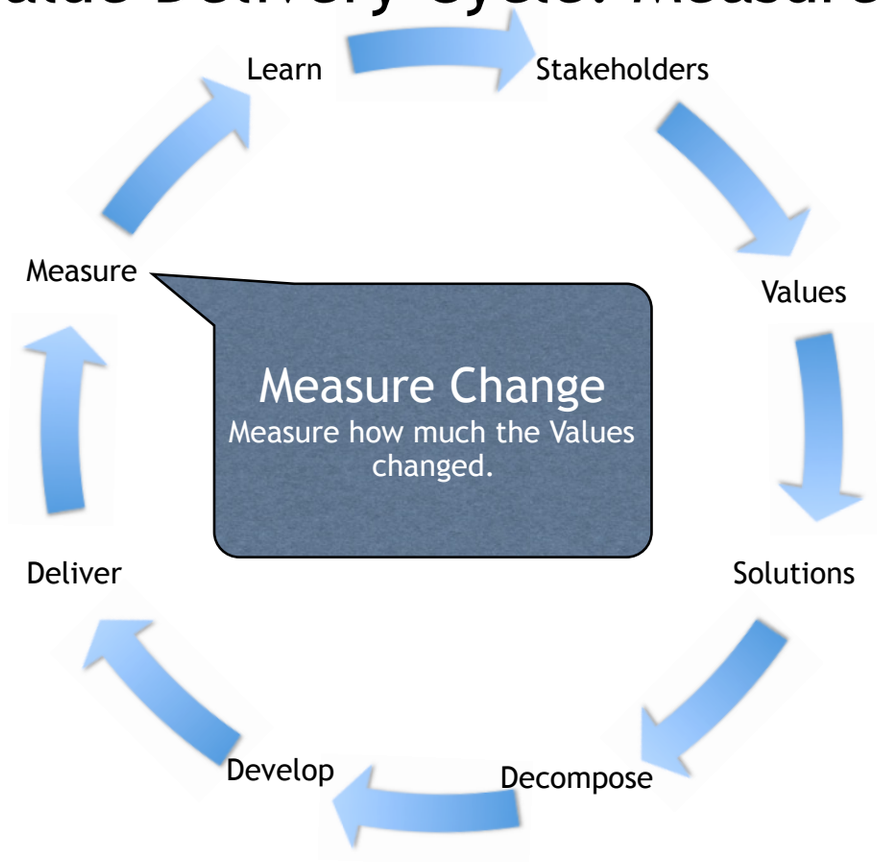
https://en.wikipedia.org/wiki/Hercule_Poirot

Startup Week is the Front End of an iterative process: it gets followed up!



9apr14 tg

Value Delivery Cycle: Measure



Agile as practiced today is perhaps good for delivering code functions faster.

But the main point of our projects is to deliver critical factor improvements.

Not code!

This requires
requirements quantification
of
all such improvements,
all qualities,
all values,
all management objectives

('Planguage').

Acer: **Security Administration Availability:**

Security Administration Availability:

Ambition: To have a service capability for security administration and entitlement reporting that is continuously available to respond to client requests in real-time for 24 hours a day Monday to Friday for every week of

Scope: Account Opening and Entitlement Reporting.

Scale: Time in real time hours that a defined [Person, default: Employee] of defined [Capabili to successfully respond to a [Client Request, default: Create New User ID].

Quantified Definition

========= *Benchmarks* ==========

Past: [Person = IBECS ISAG, RSA Employee normal working hours:] Mon - Fri 08:00 - 18:00 GMT <- Nov-03
Client Request = {Create New User ID = 24 hours, User Access Request = 24 hours, Resource Request = 24 hours, Bulk Requests (EG Project related) = 2 weeks, Password Resets = 30 minutes}

Benchmarks = Systems Analysis

========= *Targets* ==========

Wish: *[Person = Employee, Capability = Trained, Client Request = Create New User ID, Conditions = Normal Conditions] 24x5 hours*

Goal: *[Person = Employee, Capability = Trained, Client Request = Create New User ID, Conditions = Normal Conditions] 21x5 hours*

Stretch: *[Person = Employee, Capability = Trained, Client Request = Create I ...nditions] 22.5x5 hours*

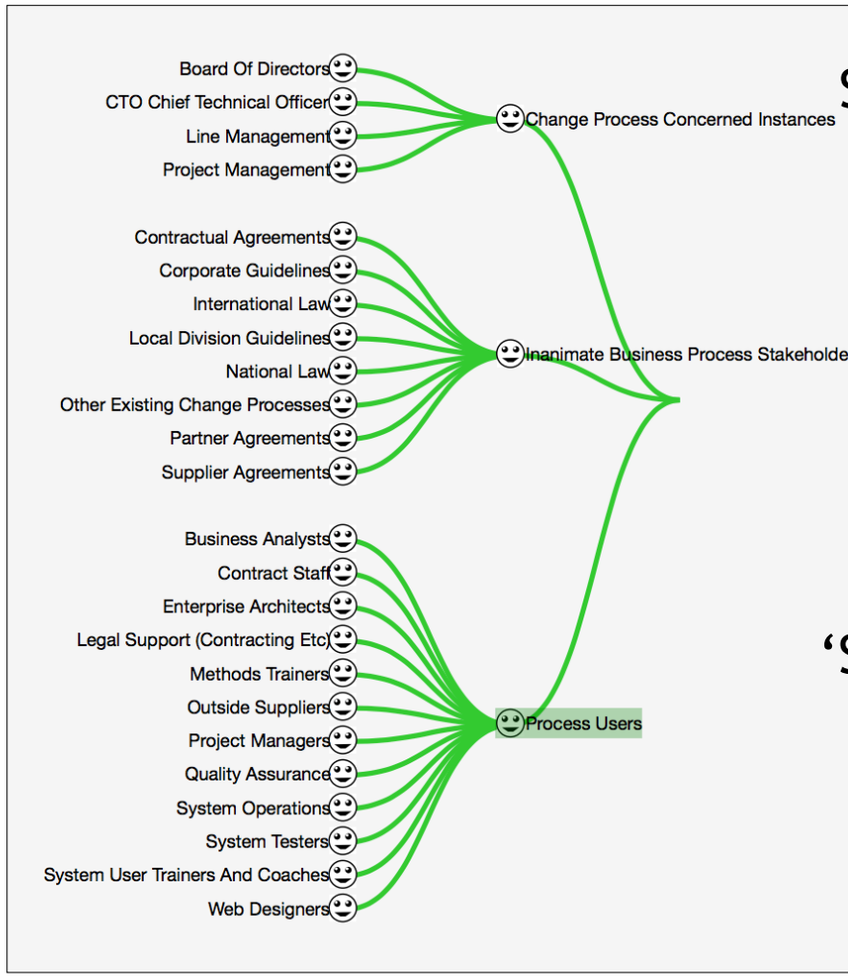
Note: the goal statement still allows a response that meets 24x5 availability r

Values, unknown costs

Realistic Project Targets Val/€

Values, if enough resources left

These Acer sides made first in May 2012 tsg



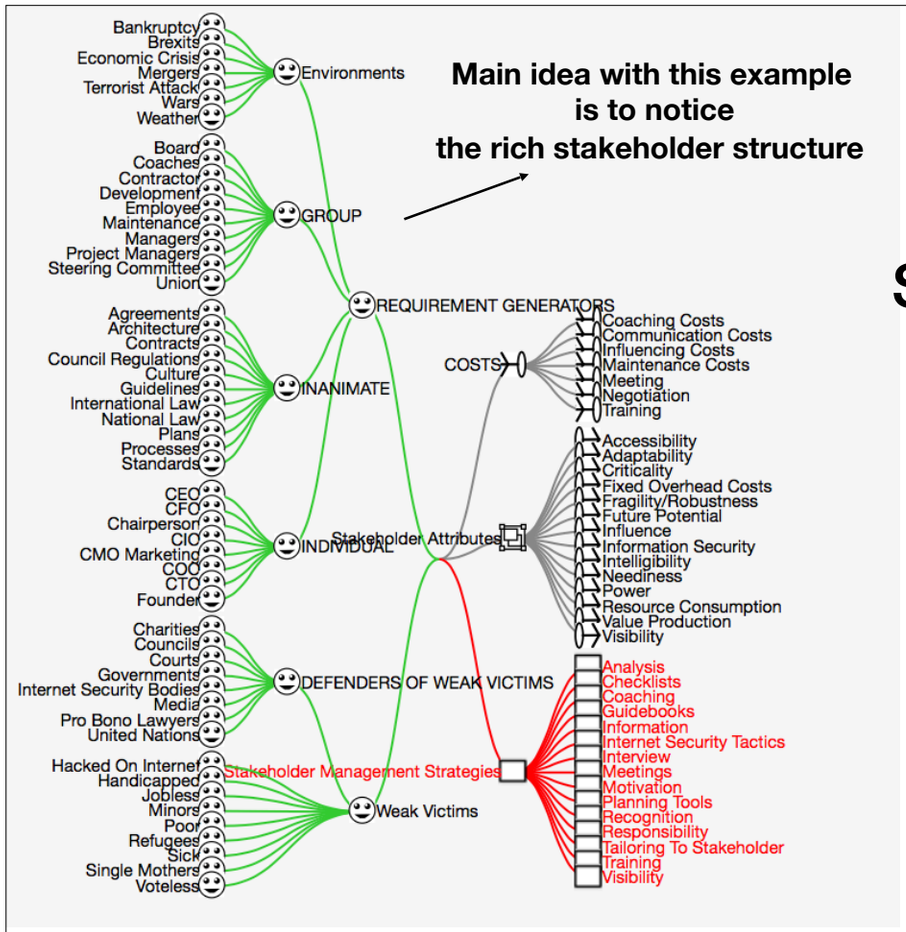
Some examples of

Business Process Stakeholders

NOT USE CASE, USER STORIES BUT 'Stakeholder Cases' and 'Stakeholder Stories'

added June 18 2017 London for BCS Talk 19June 2017

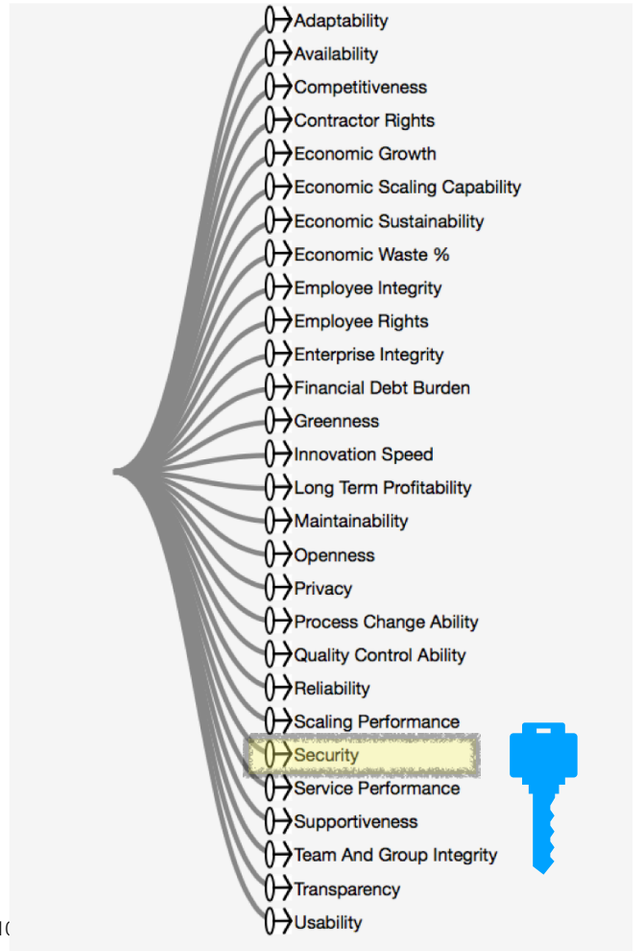
ABE Warsaw 11 oct 2017



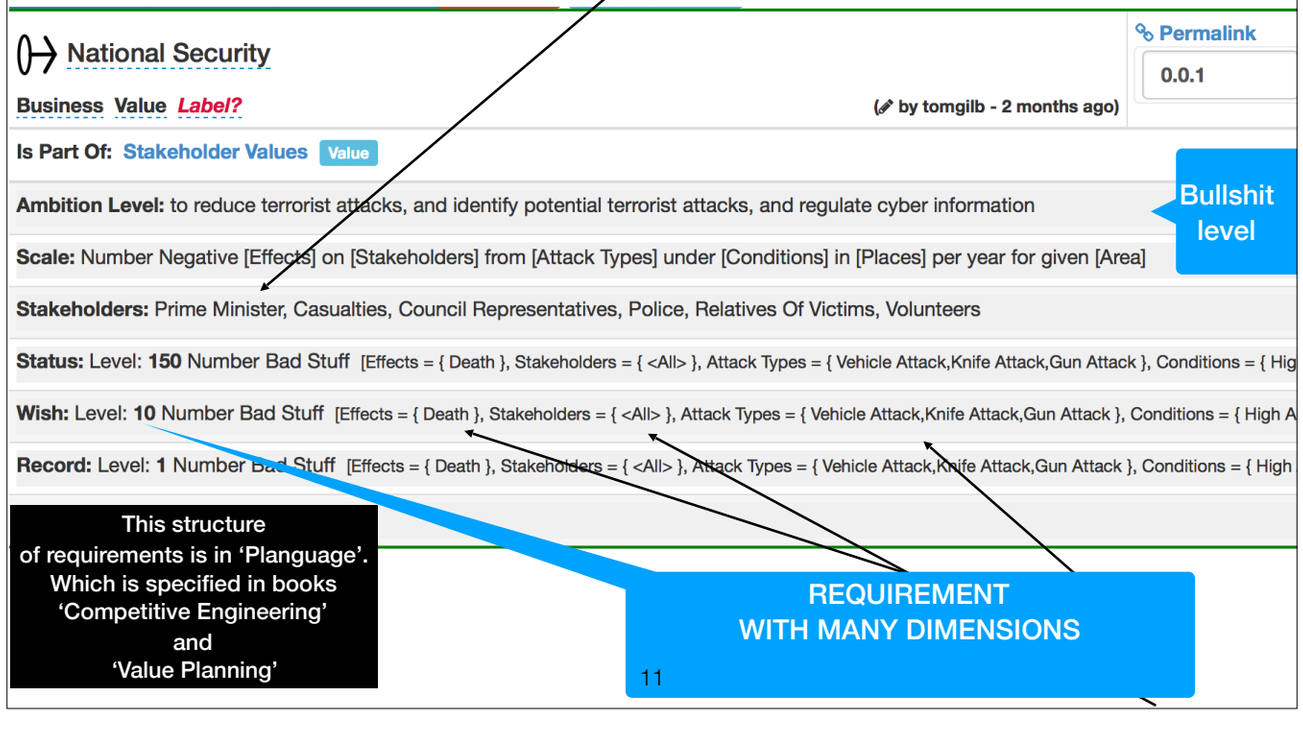
Stakeholders Needs and Means diagram

source project in public needsandmeans.com
Tom Gilb's STAKEHOLDER ANALYSIS
project 2017
slide made 9 sept 2017

Direct Quantification of all benefits, so they are unambiguous clear and trackable in agile delivery steps.

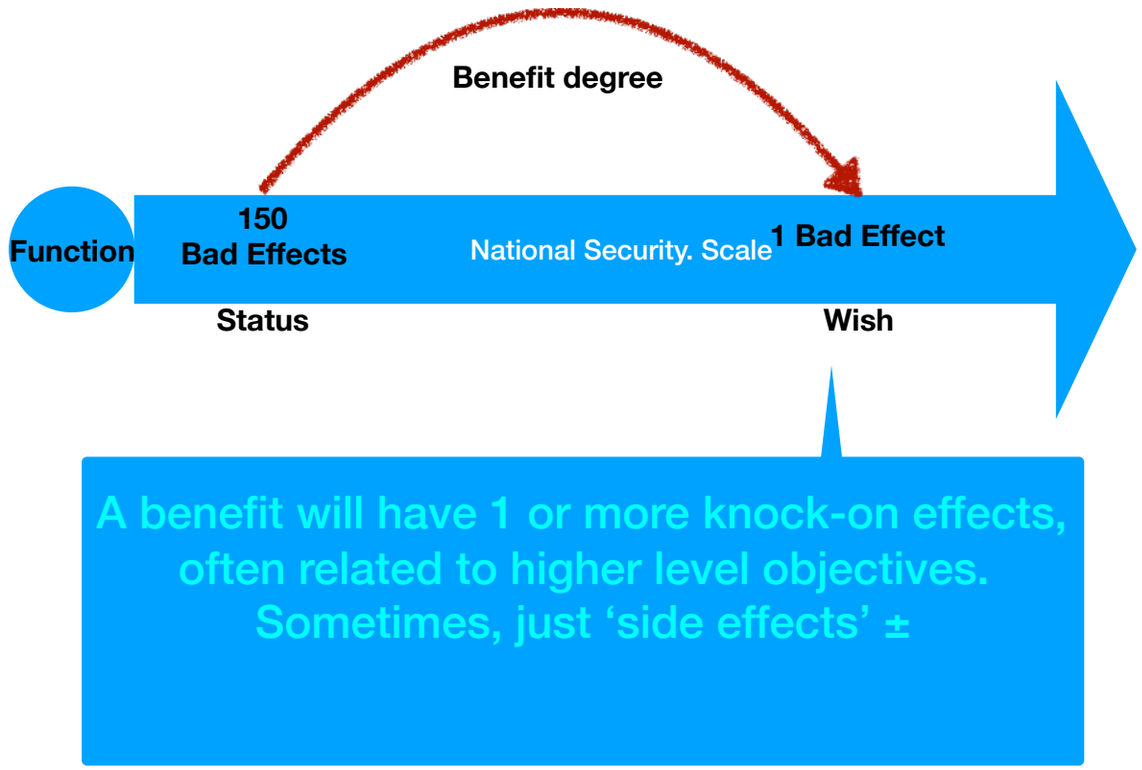


Security Value Quantification with Stakeholders



source Prevent terrorist Attacks
slide made 9 sept 201

The expected ‘benefit’



slide created 9 sept 2017 tsg

numbers correspond to the National Security spec on previous slide

We then need an architecture process,

to identify designs or strategies,

to deliver these values and qualities.

See enlarged view of this slide in following slides. This is a 1-page overview

Defining a Design/Solution/Architecture/Strategy (Planguage, CE Design Template)
1. enough detail to estimate, 2. some impact assertion, 3. Assumptions, Risks, Issues

Orbit Application Base: (formal Cross reference Tag)

Type: Primary Architecture Option

========== Basic Information ==========

Version: Nov. 30 20xx 16:49, updated 2.Dec by telephone and in meeting. 14:34

Status: Draft

Owner: Brent Barclays

Expert: Raj Shell, London

Authority: for differentiating business environment characteri
Barclays(for overview)

Source: <Source references for the information in this specific
Various, can be done later BB

Gist: risk and P/L aggregation service, which also provides wor
outbound and inbound feed support. Currently used by Rates E
and Middle Office, USA & UK.

Description: <Describe the design idea in sufficient detail to s
and costs given below>.

D1: ETL Layer. Rules based highly configurable impleme
which allows the data to be onboarded more quickly. Lo
quickly. With minimal development required. -> Busines
Business Scalability

D2: high performance risk and P/L aggregation processi
Timeliness, P/L Explanation, Risk & P/L Understanding,
Scalability, Responsiveness.

D3: Orbit supports BOTH Risk and P/L -> P/L Explanatio
Risk & P/L Understanding, Decision Support.

D4: a flexible configurable workflow tool, which can be
workflow processes -> Books/Records Consistency, Busin
Business Capability Time to Market.

D5: a report definition language, which provides 90+% of the business logic contained with Orbit, allows a quick turnaround of new and enhanced reports with minimal regression testing and release procedure impact. -> P/L Explanation, Risk & P/L Understanding, Business Capability Time to Market, Business Scalability.

D6: Orbit GUI. Utilizes an Outlook Explorer metaphor for ease of use, and the Dxx Express Grid Control, to provide high performance Cube Interrogation Capability. -> Responsiveness, People Interchangeability, Decision Support, Risk & P/L Understanding.

D7: downstream feeds. A configurable event-driven data export service, which is used to generate feeds . -> Business Process Effectiveness, Business Capability Time to Market.

ONE PAGE PLAN

========== **Priority and Risk Management** ==========

Assumptions: <Any assumptions that have been made>.

A1: **FCCP is assumed to be a part of Orbit.** FCxx does not currently exist and is Dec 20xx 6 months into Requirements Spec. <- Picked up by TsG from dec 2 discussions AH MA JH EC.

FCxx must be a part of the impact estimation and costs rating.
opment costs will not be different. All will base on a budget of
ars. The o+
htly, like $n mm for hardware. MA AH 3 dec
ue to own Orbit. TSG DEC 2
ears, will constrained to a scope we can in fact deliver, OR we
al budget. If not "I would have a problem" <- BB
ding Orbit will not be prohibitive. <- BB 2 dec
e assumption that we can integrate Oribit with PX+ in a sensible
t term <- BB
dependencies for this design idea>.
+ in time. ? tsg 2.12
gs of any factors, which could threaten your estimated
Mitigation: continue to use Pxx <- tsg 2.12
egration of Px+ is not as easy as thought & we must redevelop
ility and cost of **coherence** will not allow us to meet the
it team and infrastructure, first year especially <- BB. People, environments, etc.

R5: re Cross Desk reporting Requirement, major impact on technical design. **Solution not currently known**. Risk no solution allowing us to report all P/L

Issues: <Unresolved concerns or problems in the specification or the system>.

I1: Do we need to put the fact that we own Orbit into the objectives (Ownership). MA said, other agreed this is a huge differentiator. Dec 2.

I2: what are the time scales and scope now? Unclear now BB

I3: what will the success factors be? We don't know what we are actually being asked to do. BB 2 dec 20xx

I4: for the business other than flow options, there is still a lack of clarity as to what the requirements are and how they might differ from Extra and Flow Options. BB

I5: the degree to which this option will be seen to be useful without Intra Day. BB 2 dec

Based on real solution spec Done Dec 20xx London, but modified here for confidentiality. Tom Gilb

Spec Headers

Detailed Description and -> Impacted Objectives

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Type: Primary Architecture Option

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Owner: Brent Barclays

Expert: Raj Shell, London

Authority: for differentiating business environment characteristics, Raj Shell, Brent Barclays(for overview)

Source: <Source references for the information in this specification. Could include people>. Various, can be done later BB

Gist: risk and P/L aggregation service, which also provides work flow/ adjustment and outbound and inbound feed support. Currently used by Rates Extra Business, Front Office and Middle Office, USA & UK.

Description: <Describe the design idea in sufficient detail to support the estimated impacts and costs given below>.

D1: ETL Layer. Rules based highly configurable implementation of the ETL Pattern, which allows the data to be onboarded more quickly. Load and persist new data very quickly. With minimal development required. -> Business-Capability-Time-To-Market, Business Scalability

D2: high performance risk and P/L aggregation processing (Cube Building). -> Timeliness, P/L Explanation, Risk & P/L Understanding, Decision Support, Business Scalability, Responsiveness

D3: Orbit supports BOTH
Risk & P/L Understanding

D4: a flexible configurab
workflow processes -> Bo
Business Capability Time

D5: a report definition la
with Orbit, allows a quicl
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Understanding, Business

D6: Orbit GUI. Utilizes ar
Express Grid Control, to
Responsiveness, People In
Understanding.

D7: downstream feeds. A
to generate feeds . -> Bu
Market.

The Detailed description is useful,

- to understand costs
- to understand impacts on your objectives (see '->')
- to permit separate implementation and value delivery, incrementally
- as basis for test planning

Design Spec Enlarged 2 of 2

==== Priority & Risk Management

=======

Assumptions: *<Any assumptions that have been made>.*

A1: **FCCP is assumed to b**
not currently exist and is
Requirements Spec. <- Pi
discussions AH MA JH EC.

Consequence: FCxx m
estimation and costs

A2: **Costs**, the developme
All will base on a budget c
ops costs may differ slight
AH 3 dec

A3:Boss X will continue to

A4: the schedule, 3 years,
can in fact deliver, OR we
budget. If not "I would ha

A5: the cost of expanding
BB 2 dec

A6: we have made the assumption that we can integrate Oribit with PX+ in a sensible way, even in the short term <- BB

Dependencies: *<State any dependencies for this design idea>.*

D1: FCxx replaces Px

ASSUMPTIONS:
• broadcasts critical factors for present and future re-examination
• helps risk analysis
• are an integral part of the design specifiction

DEPENDENCIES:

Risks: *<Name or r*
threaten your estim
R1. FCxx is delayed
R2: the technical **in**
& we must redevelo
R3: the and or scala
us to meet the deliv
R4: **scalability** of O
especially <- BB. Pe
R5: re Cross Desk re
technical design. **So**
solution allowing us

Risks specification:
• shares group risk knowhow
• permits redesign to mitigate the risk
• allows relistic estimates of cost and impacts

Issues: *<Unresolved concerns or problems in the specification or the system>.*

I1: Do we need to put the
objectives (Ownership). M
differentiator. Dec 2.

I2: what are the time scal

I3: what will the success f
are actually being asked t

I4: for the business other
lack of clarity as to what
might differ from Extra ar

I5: the degree to which th
without Intra Day. BB 2 de

Issues:
• when answered can turn into a risk
• shares group knowledge
• makes sure we don't forget to analyze later

We then need a method
('Impact Estimation Tables')

to estimate the *cost-effectiveness*

of the architectures and strategies,

so we can *prioritize* their delivery sequence.

Acer Project: Impact Estimation Table

Strategies / Goals	Identify Binding Compliance Requirements Strategy	System Control Strategy	System Implementation Strategy	Find Services That Meet Our Strategy	Use The Lowest Cost Provider Strategy
Security Administration Compliance 25% ➔ 90%	100%	100%	100%	50%	0%
Security Administration Performance 24 hrs ➔ 4 hrs	75%	100%	100%	100%	0%
Security Administration Availability 10 hrs ➔ 24 hrs	0%			00%	0%
Security Administration Cost 100% ➔ 60%	50%	100%	100%	100%	100%
Total Percentage Impact	225%	300%	300%	350%	100%
Evidence	ISAG Gap Analysis Oct-03	John Collins	John Collins	John Collins	John Collins
Cost to Implement Strategy	15 man days (US$ 5,550)	15 man days (US$ 5,550)	15 man days (US$ 5,550)	15 man days (US$ 5,550)	1man day (US$ 1,110)
Credibility	0.9	0.6	0.6	0.75	0.9
Cost Adjusted Percentage Impact	202.5%	180%	180%	262.5%	90%

Strategies

Objectives

Impacts

These Acer sides made first in May 2012 tsg

Details of objecitves in slides for Finance and Testing conf 16 May 2012 London
And details of Strategies in Bank Case/Collins

IMPACT ESTIMATION TABLE

Notes:
The table below shows the estimated impacts of each of our top level strategies on our top level goals
The % estimated impact of a strategy is on a scale where 100% means the strategy brings us to the stated goal level on time and 0% means there is no impact. The estimated impact ought to be based on a benchmark, such as a previous system state or the view of a qualified commentator
Total % impact shows which of our strategies brings us most benefit in terms of achieving all of our defined goals
Evidence is the source of the facts used to make the impact estimate - a person of authority in the matter or a document for example
Cost is the USD amount that is known or estimated for implementation of the strategy. The degree to which the cost estimate is certain is reflected in the credibility rating
Credibility is a rating between 0 and 1 of the quality of the basis for the estimate, where credibility = 1 means that the basis of the estimate is regarded to be completely reliable and credibility = 0 means the basis of the estimate is completely unreliable. The rating is used as a multiplier

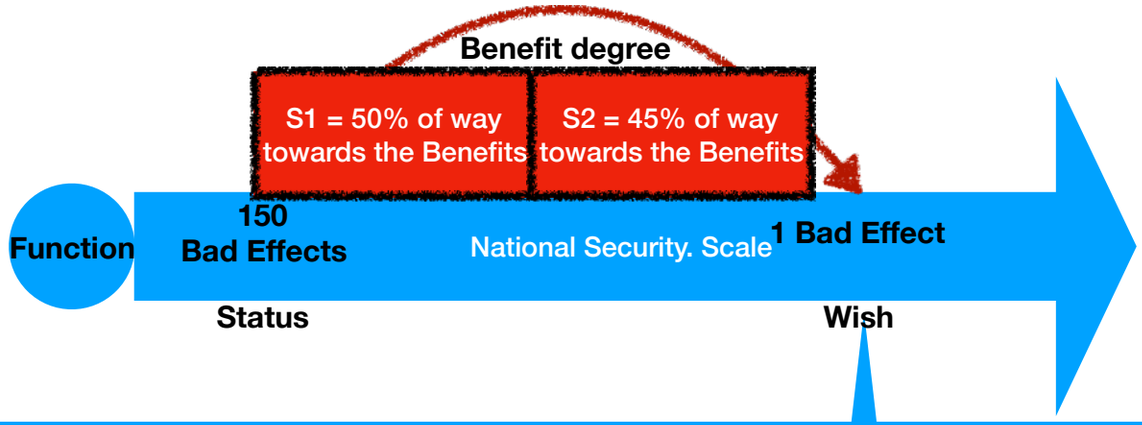
VERY TOP LEVEL PROJECT STRATEGIES

Note: These very top level project strategies specify how we are going to achieve the top level project goals.

Identify Binding Compliance Requirements Strategy:
Gist: Identify all officially binding security administration requirements with which we must become compliant both from THE CORP and Regulatory Authorities.

System Control Strategy:
Gist: a formal system or process we can use to decide what characteristics a [system; default = appication] has with regard to our compliance, performance, availability and cost goals
Note: an inspection process, for instance
Define and implement inspection for security administration-related business requirements specifications
Define and implement inspection for [systems; default = applications] which already exist in CitiTech environments
Note: systems include applications, databases, data service and machines. Project ACER ought to be extensible.

The expected ‘benefit’ of strategies S1 and S2

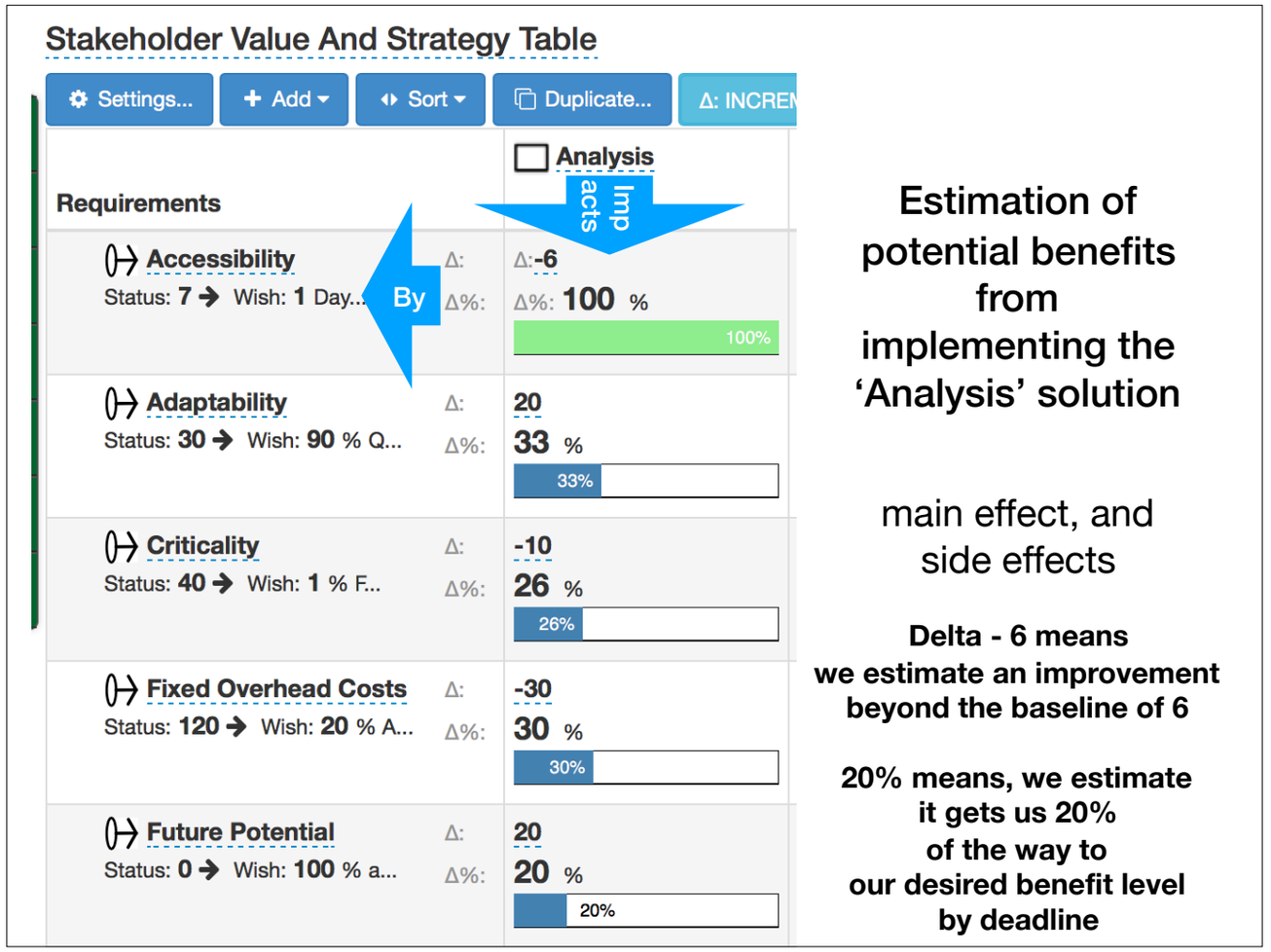


A benefit will have 1 or more knock-on effects, often related to higher level objectives. Sometimes, just ‘side effects’ ±

A benefit will probably be achieved by 1 or more ‘strategies’ or ‘solutions’

slide created 9 sept 2017 tsg

numbers correspond to the National Security spec on previous slide

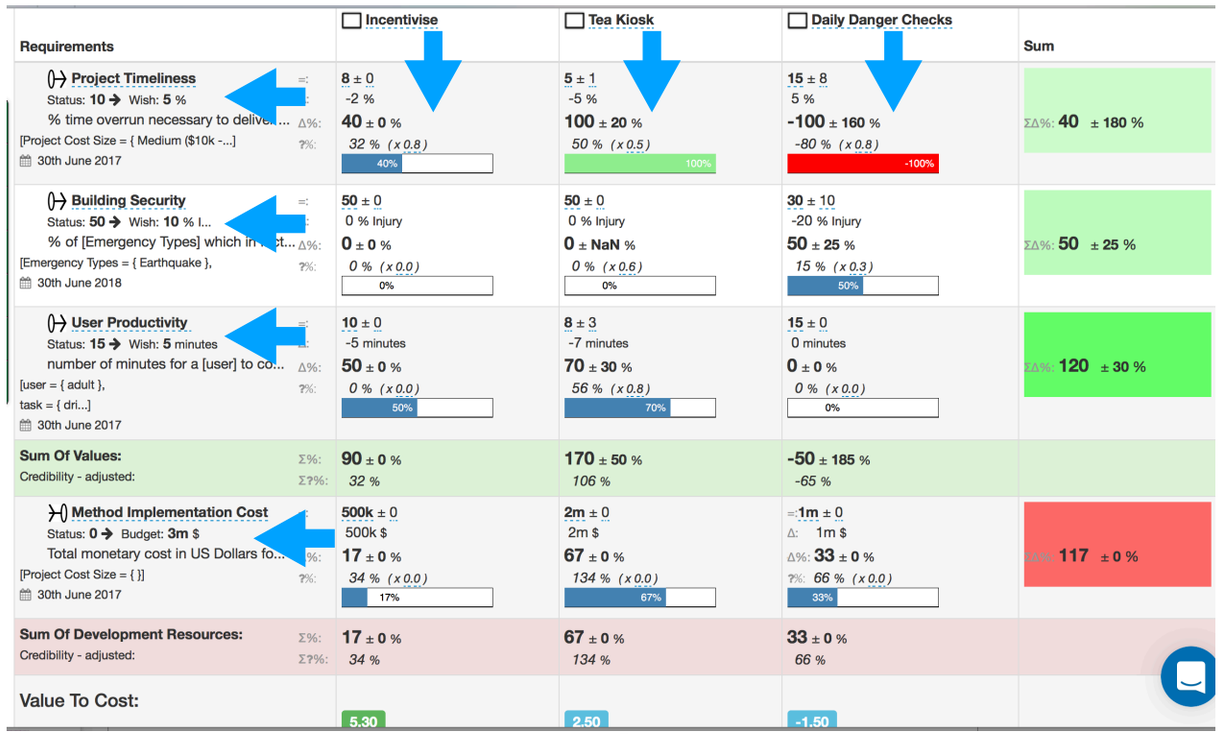


Estimation of potential benefits from implementing the 'Analysis' solution

main effect, and side effects

Delta - 6 means we estimate an improvement beyond the baseline of 6

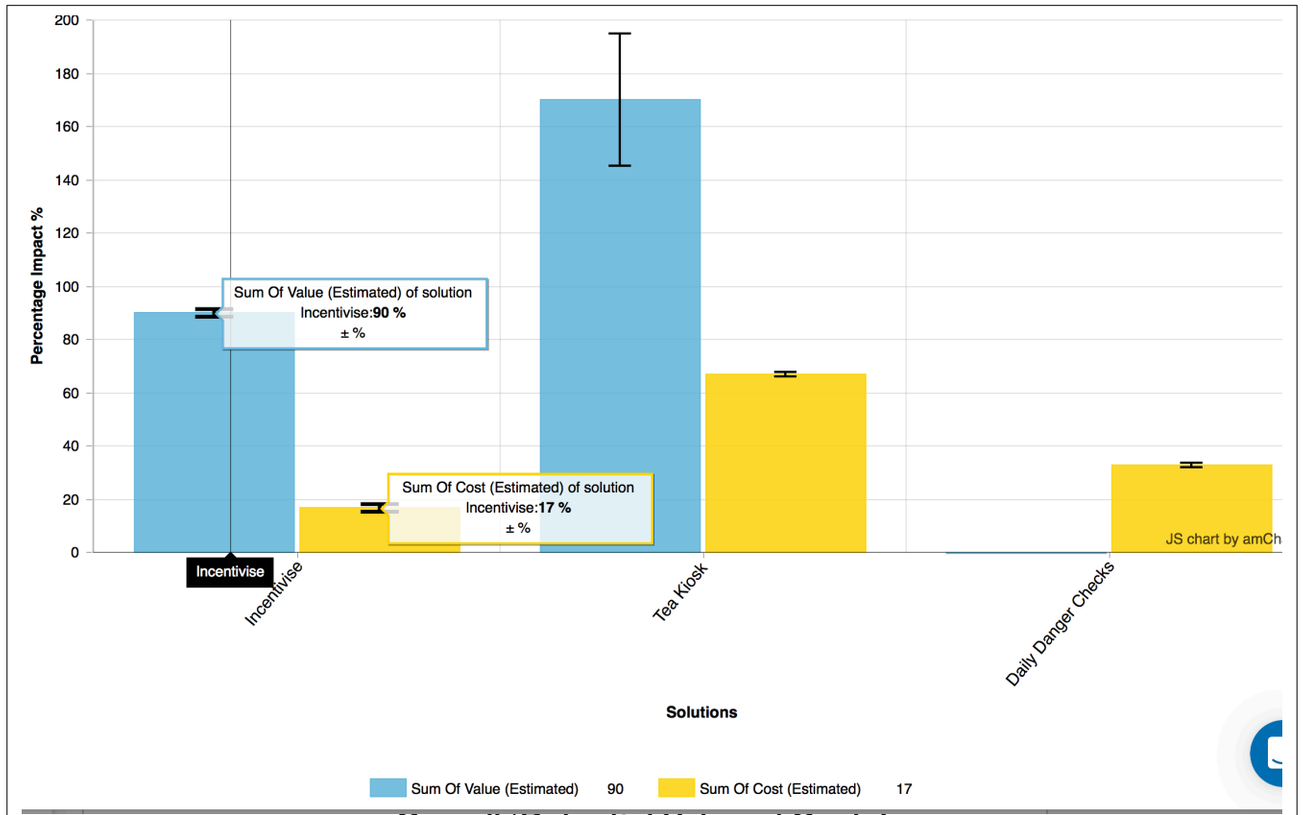
20% means, we estimate it gets us 20% of the way to our desired benefit level by deadline



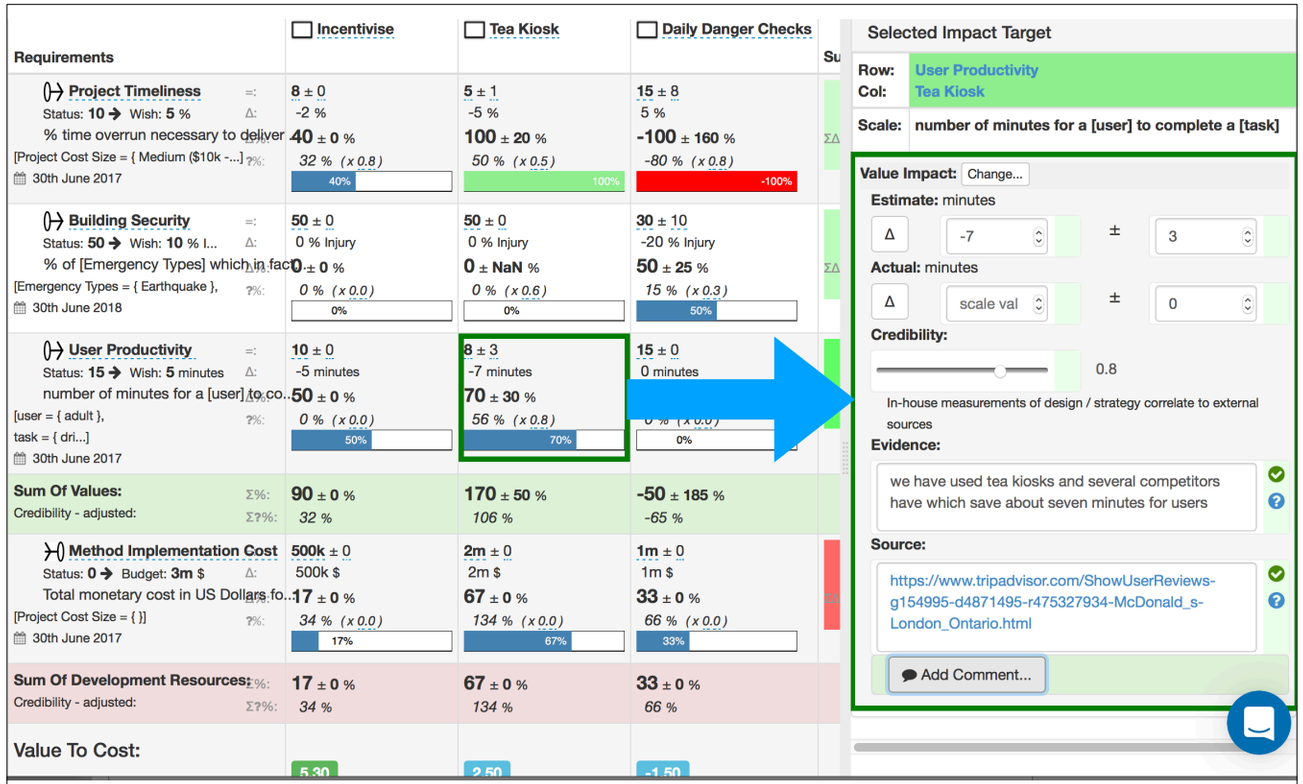
Requirements	Incentivise	Tea Kiosk	Daily Danger Checks	Sum
Project Timeliness Status: **10** → Wish: **5** % % time overrun necessary to delive... [Project Cost Size = { Medium ($10k -...] 30th June 2017	**8** ± 0 -2 % **40** ± 0 % *32 % (x 0.8)* 40%	**5** ± 1 -5 % **100** ± 20 % *50 % (x 0.5)* 100%	**15** ± 8 5 % **-100** ± 160 % *-80 % (x 0.8)* -100%	ΣΔ%: **40** ± 180 %
Building Security Status: **50** → Wish: **10** % I... % of [Emergency Types] which in... [Emergency Types = { Earthquake }, 30th June 2018	**50** ± 0 0 % Injury **0** ± 0 % *0 % (x 0.0)* 0%	**50** ± 0 0 % Injury **0** ± **NaN** % *0 % (x 0.6)* 0%	**30** ± 10 -20 % Injury **50** ± 25 % *15 % (x 0.3)* 50%	ΣΔ%: **50** ± 25 %
User Productivity Status: **15** → Wish: **5** minutes number of minutes for a [user] to co... [user = { adult }, task = { dri...] 30th June 2017	**10** ± 0 -5 minutes **50** ± 0 % *0 % (x 0.0)* 50%	**8** ± 3 -7 minutes **70** ± 30 % *56 % (x 0.8)* 70%	**15** ± 0 0 minutes **0** ± 0 % *0 % (x 0.0)* 0%	ΣΔ%: **120** ± 30 %
Sum Of Values: Credibility - adjusted:	Σ%: **90** ± 0 % Σ?%: *32 %*	**170** ± 50 % *106 %*	**-50** ± 185 % *-65 %*	
Method Implementation Cost Status: **0** → Budget: **3m** $ Total monetary cost in US Dollars fo... [Project Cost Size = { }] 30th June 2017	**500k** ± 0 500k $ **17** ± 0 % *34 % (x 0.0)* 17%	**2m** ± 0 2m $ **67** ± 0 % *134 % (x 0.0)* 67%	=**1m** ± 0 Δ: 1m $ Δ%: **33** ± 0 % ?%: *66 % (x 0.0)* 33%	ΣΔ%: **117** ± 0 %
Sum Of Development Resources: Credibility - adjusted:	Σ%: **17** ± 0 % Σ?%: *34 %*	**67** ± 0 % *134 %*	**33** ± 0 % *66 %*	
Value To Cost:	5.30	2.50	-1.50	

The numeric relation between ends and means.

Basic Structure of an Impact Estimation Table



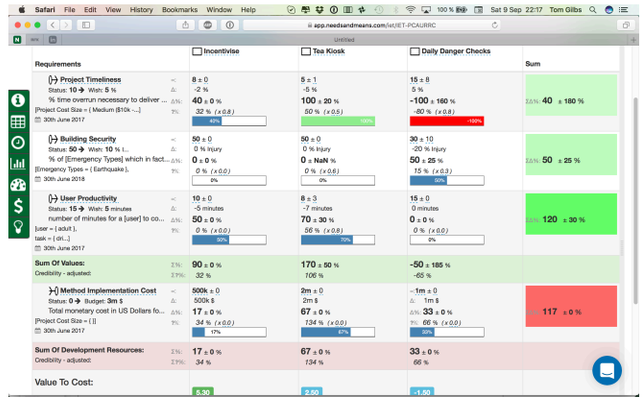
Overall 'Potential Values / Costs'
of 3 *options* or (if you need them all)
***complimentary* 'benefit drivers' = strategies = solutions = means'**



We estimate benefits based on facts, evidence, and consider ‘uncertainty’ (10±6)

Benefit Management Consequences

1. It is possible to **estimate the benefits** we can expect from our strategies
2. we can include various **best-available** degrees of credibility
3. ‘experts’ and opinionated people are forced to take **responsibility** for their suggested ‘means’
4. we can use these estimates to **prioritise** delivery of best benefits for resources wt risks
5. we have another method for **decomposition** into smaller benefits deliverables (Values x Strategies numbers = decomposition density)
6. we are ‘forced’ to see the **side effects** of strategies, and their costs
7. this is ‘benefits management **engineering**’ in practice.
8. then next step is to **feed back incremental measures** of benefits achieved and track progress.



slide created 9 sept 2017 tsg

We also need methods of

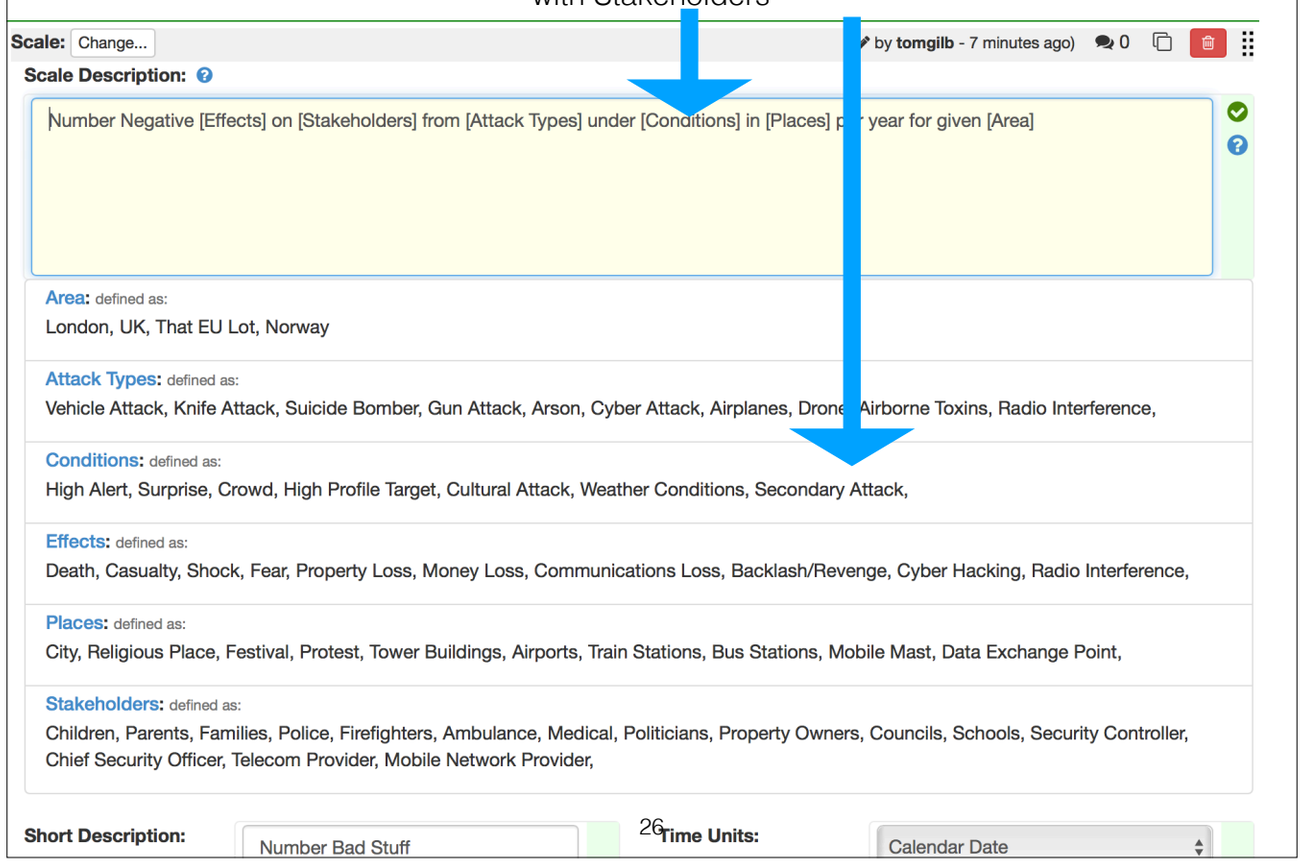
decomposition

of the strategies/architectures

into value delivery steps

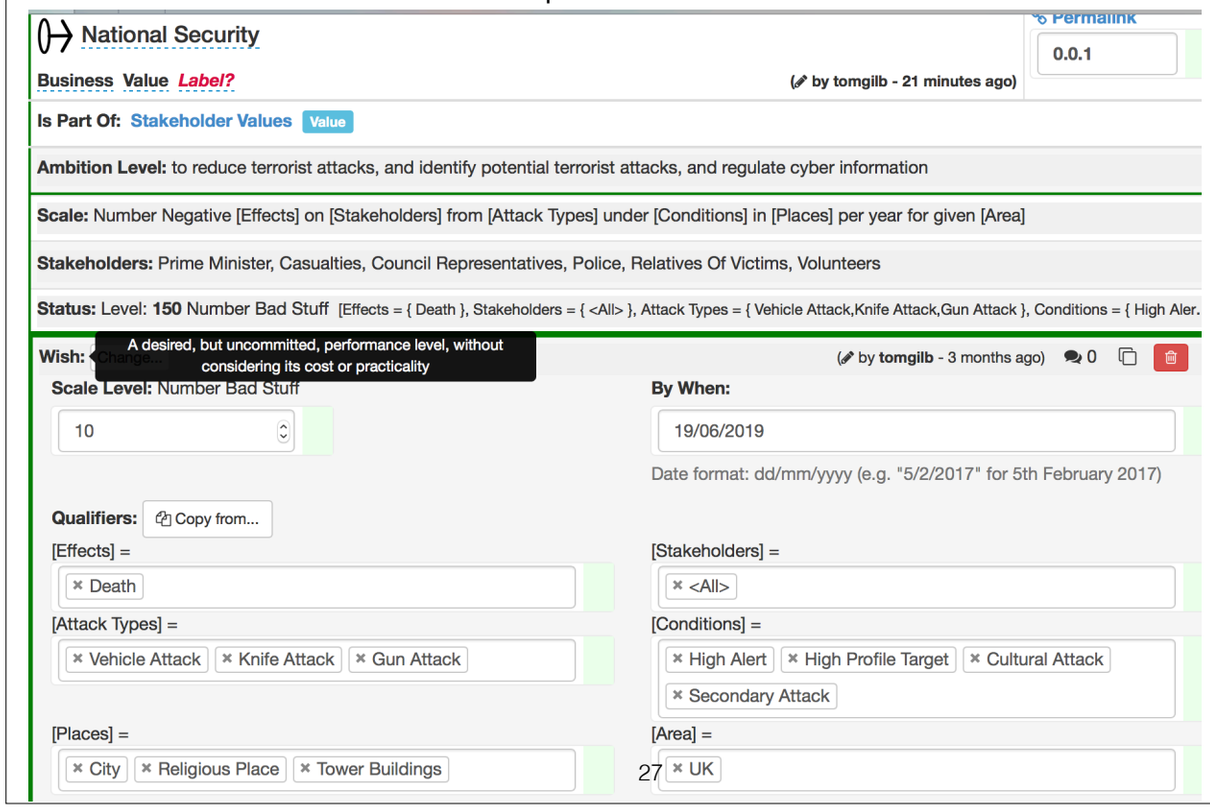
(methods like like
‘Scale Parameters’
and ‘IET Cells’).

Security Value Quantification: ‘’Scale’ Window detail.
The ‘Scale’ Parameter, with ‘[Scale Qualifiers]’ defined as a ‘Set’ with Stakeholders



source Prevent terrorist Attacks
slide made 9 sept 201

One possible ‘Wish’ Benefit where we have selected a level, a deadline, and a set of qualifiers



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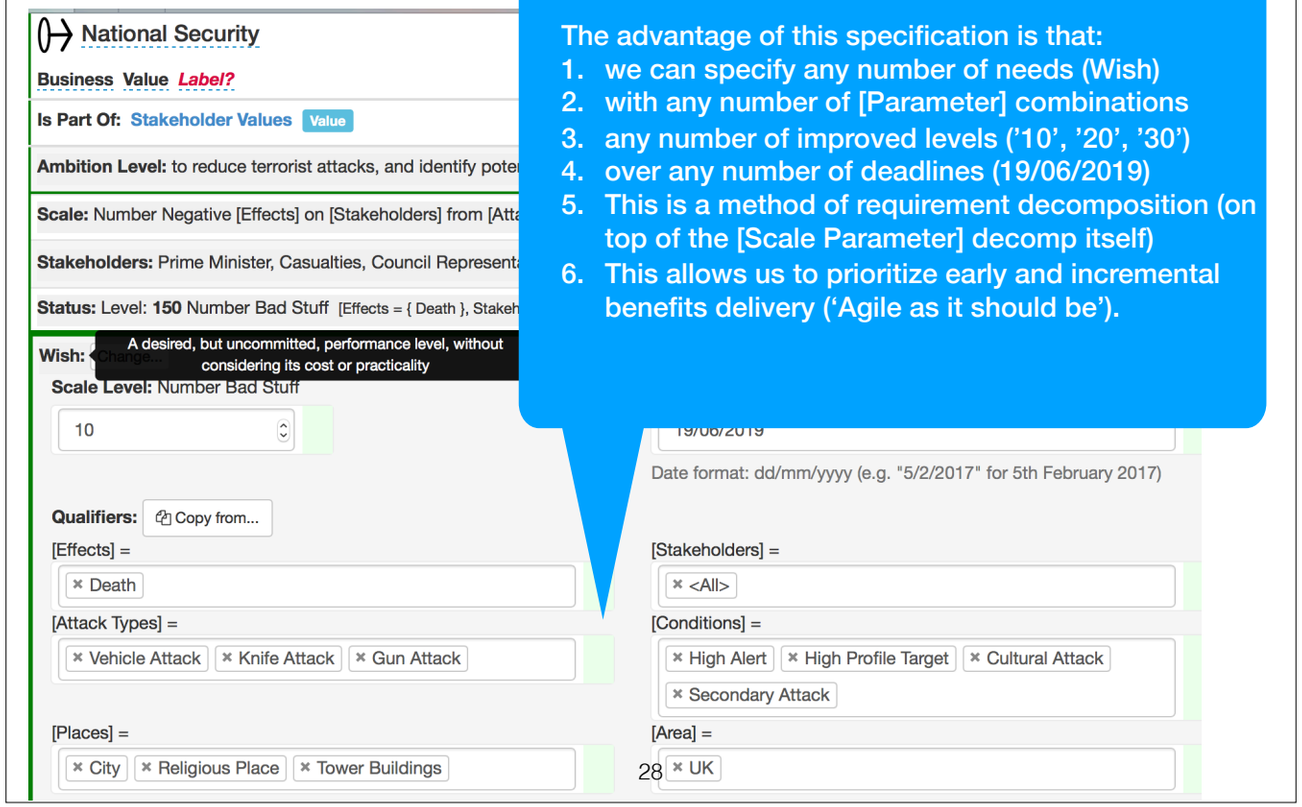
FOR BCS LONDON COURSE

One possible ‘Wish’ Benefit Detailed Window where we have selected a level, a deadline, and a set of [qualifiers]



The advantage of this specification is that:

1. we can specify any number of needs (Wish)
2. with any number of [Parameter] combinations
3. any number of improved levels (’10’, ’20’, ’30’)
4. over any number of deadlines (19/06/2019)
5. This is a method of requirement decomposition (on top of the [Scale Parameter] decomp itself)
6. This allows us to prioritize early and incremental benefits delivery (‘Agile as it should be’).

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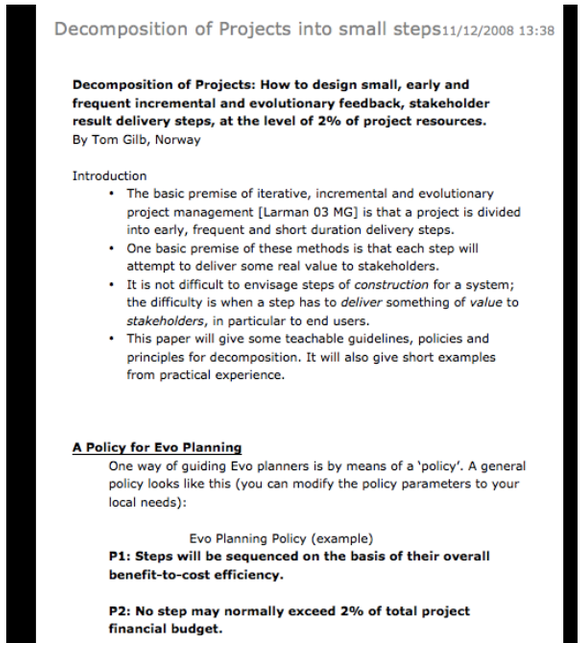
Building Security Status: **50** → Wish: **10** % I... % of [Emergency Types] which in... [Emergency Types = { Earthquake }, 30th June 2018	**50** ± 0 0 % Injury **0** ± 0 % *0 % (x 0.0)* 0%	**50** ± 0 0 % Injury **0** ± **NaN** % *0 % (x 0.6)* 0%	**30** ± 10 -20 % Injury **50** ± 25 % *15 % (x 0.3)* 50%	ΣΔ%: **50** ± 25 %
User Productivity Status: **15** → Wish: **5** minutes number of minutes for a [user] to co... [user = { adult }, task = { dri...] 30th June 2017	**10** ± 0 -5 minutes **50** ± 0 % *0 % (x 0.0)* 50%	**8** ± 3 -7 minutes **70** ± 30 % *56 % (x 0.8)* 70%	**15** ± 0 0 minutes **0** ± 0 % *0 % (x 0.0)* 0%	ΣΔ%: **120** ± 30 %
Sum Of Values: Credibility - adjusted:	Σ%: **90** ± 0 % Σ?%: *32 %*	**170** ± 50 % *106 %*	**-50** ± 185 % *-65 %*	
Method Implementation Cost Status: **0** → Budget: **3m** $ Total monetary cost in US Dollars fo... [Project Cost Size = { }] 30th June 2017	**500k** ± 0 500k $ **17** ± 0 % *34 % (x 0.0)* 17%	**2m** ± 0 2m $ **67** ± 0 % *134 % (x 0.0)* 67%	=**1m** ± 0 Δ: 1m $ Δ%: **33** ± 0 % ?%: *66 % (x 0.0)* 33%	ΣΔ%: **117** ± 0 %
Sum Of Development Resources: Credibility - adjusted:	Σ%: **17** ± 0 % Σ?%: *34 %*	**67** ± 0 % *134 %*	**33** ± 0 % *66 %*	
Value To Cost:	5.30	2.50	-1.50	

3x3 decomposition

Basic Structure of an Impact Estimation Table

Decomposition Principles
A Teachable Discipline



Decomposition of Projects into small steps 11/12/2008 13:38

Decomposition of Projects: How to design small, early and frequent incremental and evolutionary feedback, stakeholder result delivery steps, at the level of 2% of project resources.
By Tom Gilb, Norway

Introduction

- The basic premise of iterative, incremental and evolutionary project management [Larman 03 MG] is that a project is divided into early, frequent and short duration delivery steps.
- One basic premise of these methods is that each step will attempt to deliver some real value to stakeholders.
- It is not difficult to envisage steps of *construction* for a system; the difficulty is when a step has to *deliver* something of *value* to *stakeholders*, in particular to end users.
- This paper will give some teachable guidelines, policies and principles for decomposition. It will also give short examples from practical experience.

A Policy for Evo Planning

One way of guiding Evo planners is by means of a 'policy'. A general policy looks like this (you can modify the policy parameters to your local needs):

Evo Planning Policy (example)

P1: Steps will be sequenced on the basis of their overall benefit-to-cost efficiency.

P2: No step may normally exceed 2% of total project financial budget.

How to decompose systems into small evolutionary steps:

some principles to apply:

1• *Believe* there is a way to do it, you just have not *found* it yet!

2• *Identify* obstacles, but don't use them as excuses: use your imagination to get *rid* of them!

3• Focus on *some usefulness* for the user or customer, however small.

4• Do not focus on the design ideas themselves, they are distracting, especially for small initial cycles. Sometimes you have to ignore them entirely in the short term!

5• Think; one customer, tomorrow, one interesting improvement.

6• Focus on the *results* (which you should have defined in your goals, moving toward target levels).

7• Don't be afraid to use temporary-scaffolding designs. Their cost must be seen in the light of the value of making some progress, and getting practical experience.

8• Don't be worried that your design is inelegant; it is results that count, not style.

9• Don't be afraid that the customer won't like it. *If* you are focusing on results *they want*, then by definition, *they* should like it. If you are not, then *do*!

10• Don't get so worried about "what might happen afterwards" that you can make no practical progress.

11• You cannot foresee everything. Don't even *think* about it!

12• If you focus on helping your customer in practice, *now*, where t
you will be forgiven a lot of 'sins'!

13• You can understand things much better, by getting *some* practic
removing *some* of your fears).

14• Do *early* cycles, on willing local mature parts of your user comm

15• When some cycles, like a purchase-order cycle, take a long time
early, and do other useful cycles while you wait.

16• If something seems to need to wait for 'the big new system', ask if you cannot usefully do it with the 'awful old system', so as to pilot it realistically, and perhaps alleviate some 'pain' in the old system.

17• If something seems too costly to buy, for limited initial use, see if you can negotiate some kind of 'pay as you really use' contract. Most suppliers would like to do this to get your patronage, and to avoid competitors making the same deal.

18• If *you* can't think of some useful small cycles, then talk directly with the real 'customer' or end user. They probably have dozens of suggestions.

19• Talk with end users in *any* case, they have insights you need.

20• Don't be afraid to use the old system and the old 'culture' as a launching platform for the radical new system. There is a lot of merit in this, and many people overlook it.

I have never seen an exception in 33 years of doing this with many varied cultures. Oh Ye of little faith!

http://www.gilb.com/tiki-download_file.php?fileId=41

Decomposition of Projects: How to Design Small Incremental Steps INCOSE 2008
http://www.gilb.com/tiki-download_file.php?fileId=41

http://www.gilb.com/tiki-download_file.php?fileId=350
Decomposition Slides Aug 2010

All this, and more, amounts to an

'engineering' approach,

rather than a 'programming' approach

to projects.

I am wondering
if my European and Polish friends

are ready to step in

where American pop marketing culture has failed;

and make 'agile' a serious discipline

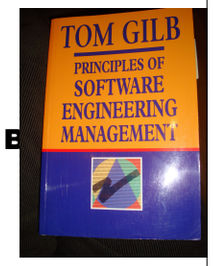
for delivering results?

‘Agile Engineering', anyone?

we speakers were advised not to start our talk telling about ourselves
so I hid this at the end

Agile Grandpa

- **The Agile 'Grandfather'**
  - **Practicing 'Agile' IT Projects since 1960**
  - **Preaching Agile since 1970's (Comp. Weekly UK)**
  - **Acknowledged Pioneer by Agile Gurus and Research**
    - **Beck, Sutherland, Highsmith, Cohn, Larman etc.**
    - **Ask me for details on this! I am too shy to show it here!**
- **Agile Practice**
  - **IT: for decades (Kai and Tom)**
  - **Organisations: for Decades (Citigroup, Intel, HP, Boeing)**
- **Books: Presenting Agile: Incremental Delivery**
  - **Principles of Software Engineering Management (1988) the book E and others refer to.**
  - **Competitive Engineering (2005)**
  - **'Evo': (Kai, evolving, 55 iterations)**
  - **1976 Software Metrics book**
    - **As detailed in 1988 PoSEM citations**
  - **NEW 'Competitive Planning' manuscript**
  - **http://tinyurl.com/competitiveplanning**



Agile References:
"Tom Gilb invented Evo, arguably the first Agile process. He and his son Kai have been working with me in Norway to align what they are doing with Scrum.
Kai has some excellent case studies where he has acted as Product Owner. He has done some of the most innovative things I have seen in the Scrum community."
Jeff Sutherland, co-inventor of Scrum, 5Feb 2010 in Scrum Alliance Email.

"Tom Gilb's Planguage referenced and praised at #scrumgathering by Jeff Sutherland. I highly agree" **Mike Cohn, Tweet, Oct 19 2009**

"I've always considered Tom to have been the original agilist. In 1989, he wrote about short iterations (each should be no more than 2% of the total project schedule). This was long before the rest of us had it figured out." ***Mike Cohn*** http://blog.mountaingoatsoftware.com/?p=77

Comment of Kent Beck on Tom Gilb's book , "Principles of Software Engineering Management": *" A strong case for evolutionary delivery - small releases, constant refactoring, intense dialog with the customer".* (Beck, page 173).
In a mail to Tom, Kent wrote: *"I'm glad you and I have some alignment of ideas. I stole enough of yours that I'd be disappointed if we didn't :-), Kent"* (2003)

"But if you really want to take a step up, you should read Tom Gilb. The ideas expressed in Principles of Software Engineering Management aren't quite fully baked into the ADD-sized nuggets that today's developers might be used to, but make no mistake, Gilb's thinking on requirements definition, reliability, design generation, code inspection, and project metrics are beyond most current practice." Corey Ladas http://leansoftwareengineering.com/2007/12/20/tom-gilbs-evolutionary-delivery-a-great-improvement-over-its-successors/

Jim Highsmith (an Agile Manifesto signatory) commented: *"Two individuals in particular pioneered the evolution of iterative development approached in the 1980's - Barry Boehm with his Spiral Model and Tom Gilb with his Evo model. I drew on Boehm's and Gilb's ideas for early inspiration in developing Adaptive Software Development. …. Gilb has long advocated this more explicit (quantitative) valuation in order to capture the early value and increase ROI"* **(Cutter It Journal: The Journal of Information Technology Management, July 2004page 4, July 2004).**

Ward Cunningham wrote April 2005: *"Tom -- Thanks for sharing your work. I hope you find value in ours. I'm also glad that the agile community is paying attention to your work. We know (now) that you were out there ahead of most of us. Best regards. - Ward",* http://c2.com

Robert C. Martin (Agile Manifesto initial signatory, aka Uncle Bob): *"Tom and I talked of many things, and I found myself learning a great deal from him. The item that sticks most prominently in my mind is the definition of progress.", "Tom has invented a planning formalism that he calls Planguage that captures this idea of customer need. I think I'm going to spend some serious time investigating this. "* from http://www.butunclebob.com/ArticleS.UncleBob.TomGilbVisit

'1985: perhaps the first explicitly named, incremental alternative to the "waterfall" approach is Tom Gilb's Evolutionary Delivery Model, nicknamed "Evo" '
http://guide.agilealliance.org/timeline.html

Gilb T. (1985). "Evolutionary Delivery versus the "waterfall model" " ACM SIGSOFT, http://dl.acm.org/citation.cfm?id=1012490

Mary Poppendieck, 2012
In 1988, Tom Gilb wrote the book Principles of Software Engineering Management, which is now in its 20th printing. One of the earliest advocates of evolutionary development, he has recently reiterated the elements of good software engineering in an article in Agile Record[2], from which I quote liberally
http://poppendieck.blogspot.com/2010/12/product-owner-problem.html

Agile History…

Historical Roots of Agile Methods:

OK I am not that shy!

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Agile History…

Historical Roots of Agile Methods:
Where did "Agile Thinking" Come from?
Noura Abbas, Andrew M Gravell, Gary B Wills
School of Electronics and Computer Science, University of Southampton
Southampton, SO17 1BJ, United Kingdom
(Oct 10 2008)
http://eprints.ecs.soton.ac.uk/16606/1/xp2008camera_ready.pdf

"Agile ideas appeared in old development processes as well. In 1985, Tom Gilb wrote "Evolutionary Delivery versus the 'Waterfall model'". In this paper Gilb introduce the EVO method as an alternative of the waterfall which he considered as "unrealistic and dangerous to the primary objectives of any software project". Gilb based EVO on three simple principles [17]:
• Deliver something to the real end-user
• Measure the added-value to the user in all critical dimensions
• Adjust both design and objectives based on observed realities "

Tom’s Bragging Rights

Get a free e-copy of ‘Competitive Engineering’ book. https://www.gilb.com/p/competitive-engineering

——— Bragging Rights and Street Cred. , The Short Version ——————————————

10 Published Books. Some in 20 printings, and still being sold since 1986 and 1993, and 2005

55 Years as Independent Consultant, and Teacher. + 5 Years in 2 periods at IBM.

Honorary Fellow, British Computer Society (2012)

Dozens of invited University Lectures. Knowledge should be free!

100’s of Free Courses held: Knowledge should be free!

Maybe 200 Free Downloads at *http://concepts.gilb.com/file24*, videos, blogs. Knowledge should be free

Voluntary Consultant to US DoD, and UK MoD, and Norway ‘Forsvaret’ (Defence) and other Government Offices

Voluntary Invited Consultant to Tata Consultancy, during formation: who took my advice on Quality Profile. Personal advisor to Dr. Fakir Chand Kohli (who is considered to be the Grand-sire of Indian IT industry In 2005 I trained his top managers, and he titled me ‘Friend of the House’.

Voluntary Consultant to Norwegian Christian Aid, in planning International Help, like Guatemala Peace Process.

Invented ‘Planguage’ (A Planning Language): from 1960s, and still being refined.

Invented ‘Evo’, The Evolutionary Value-Delivery ‘Agile’ Process. (Planguage component)

Invented the ‘Impact Estimation Table’ (Planguage component)

Published First Book on ‘Software Metrics’ (1976) and coined the term.

First book on IT Human Factors/Usability. ‘Humanized Input’, 1976 with G. Weinberg.

First published book on ‘Software Inspection’ (1993 w D. Graham)

Major Corporate spread of methods, with well documented results at Intel, HP, Boeing, Ericsson

Credited by Ron Radice, (CMM-Inventor at IBM, and SEI) with ‘CMM Level 4’, based on ‘Software Metrics’.

IEEE has adopted Planguage (2017) in connection with Requirement Training

Honorary Fellow of NORSEC Norwegian Systems Engineering Association (INCOSE).

Credited as ‘Grandfather of Agile’ by most of Agile Manifesto signatories.

Author of Gilb’s Laws of UnReliabiity (Datamation 1971)

Creator of 100’s of basic Principles of systems engineering (ca. 100 per book) + 10 per paper.

Gilb’s Law reported by Tom DeMarco in Peopleware about page 49-50. Qualities can always be quantified. Also cited by D. Hubbard.
Gilb’s Law: "Anything you need to quantify can be measured in some way that is superior to not measuring it at all." Gilb’s Law doesn’t promise you that measurement will be free or even cheap, and it may not be perfect - just better than nothing.
Source: Peopleware – Productive Projects and Teams, Third Edition, Tom DeMarco and Timothy Lister, Addison-Wesley

Former President and Board Member of NSEI i(Norsk Selskap for Elektronisk Informasjonsbehandling) later part of Norwegian Computer Association (DnD)

Former Board Member and President of Norwegian ‘Art of Living’, and IAHV. Advisor to Sri Sri Ravi Shankar.

Invited Keynote Speaker at many International conferences in Many Countries

Books translated to Japanese, German, Swedish, Dutch, Russian

Voluntary Advisor on Planning to Norwegian Cabinet Office (DSS) 2017