

Agile Benefits Management: How to Quantify All Benefits and Deliver Them Incrementally

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Millenium Gloucester, 4-18 Harrington Gardens, Kensington, London SW7 4LH

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Summary

Common Agile methods *intend* to deliver benefits and value, but they are not equipped to do so in practice. You have to add to an agile framework, like Scrum, a number of tools.

Direct Quantification of all benefits, so they are unambiguous clear and trackable in agile delivery steps. Much better stakeholder analysis. A method to estimate the 'benefit power' of all architecture and design strategies. A method for decomposing big strategies into smaller benefit deliverable strategies. A method for dynamic prioritisation of delivery steps based on value for resources wrt risks.

This presentation will present these tools and participants will get a free digital copy of the book "Value Planning" explaining this in more detail.

**“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

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

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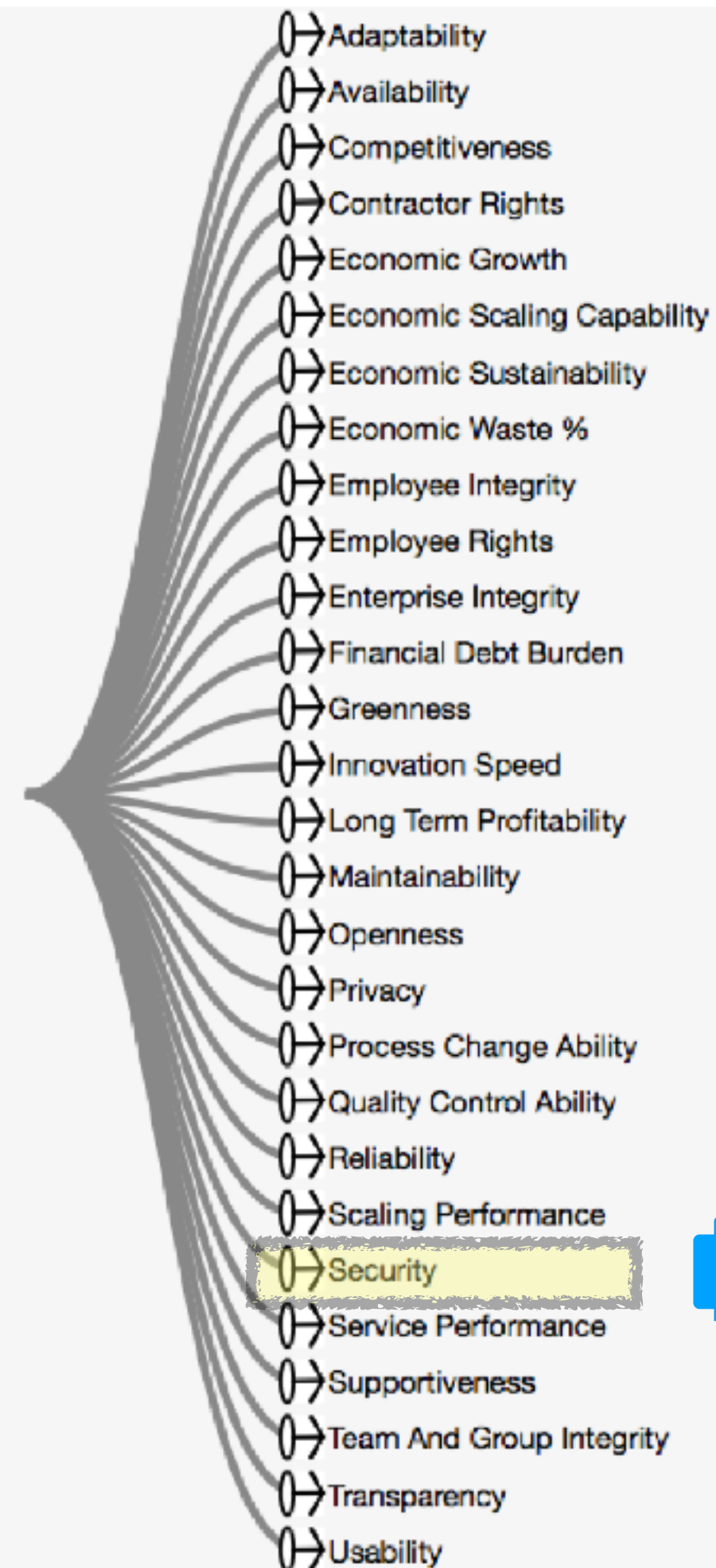
2. Much better stakeholder analysis.

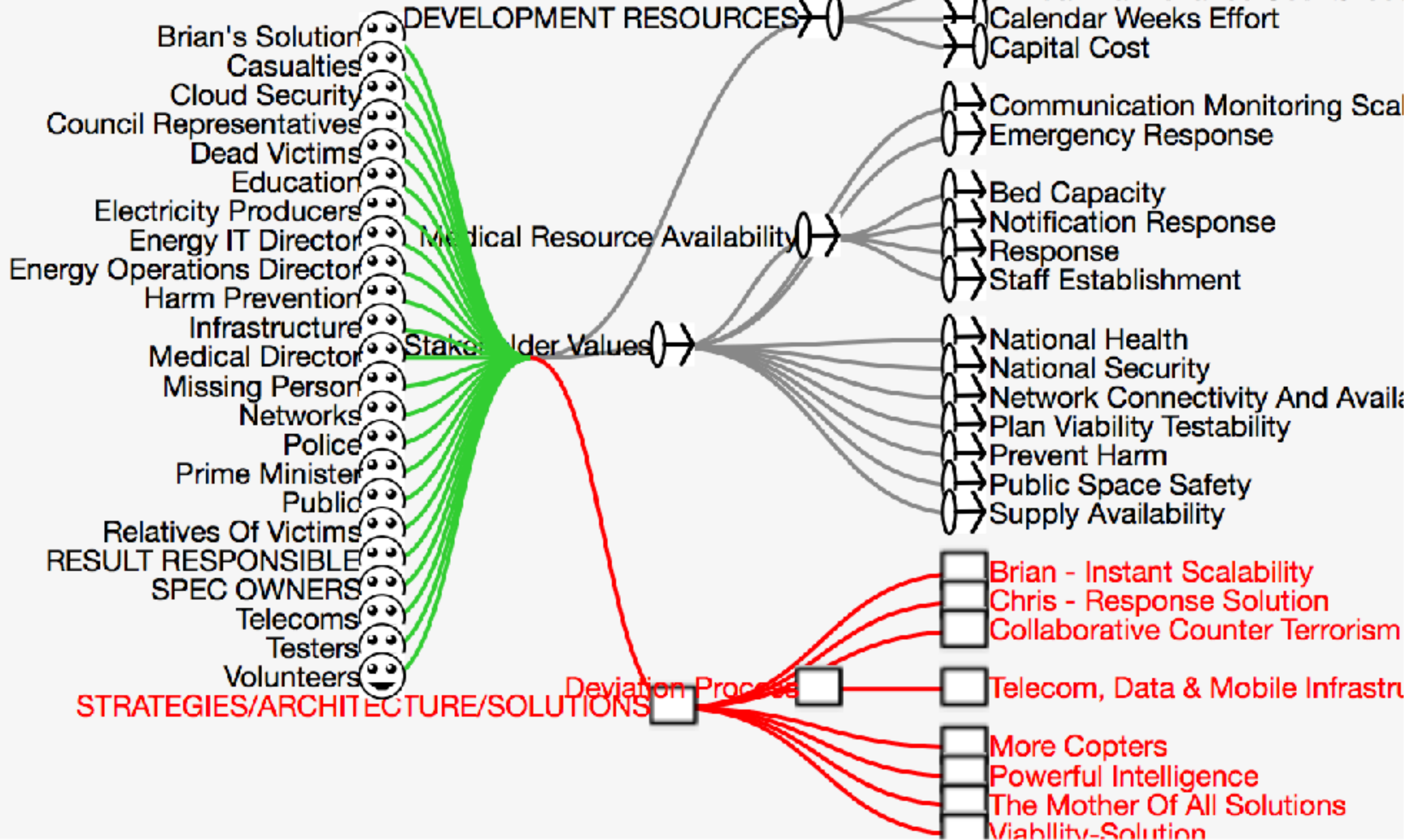
3. A method to estimate the 'benefit power' of all architecture and design strategies.

4. A method for decomposing big strategies into smaller benefit deliverable strategies.

5. A method for dynamic prioritisation of delivery steps based on value for resources wrt risks.

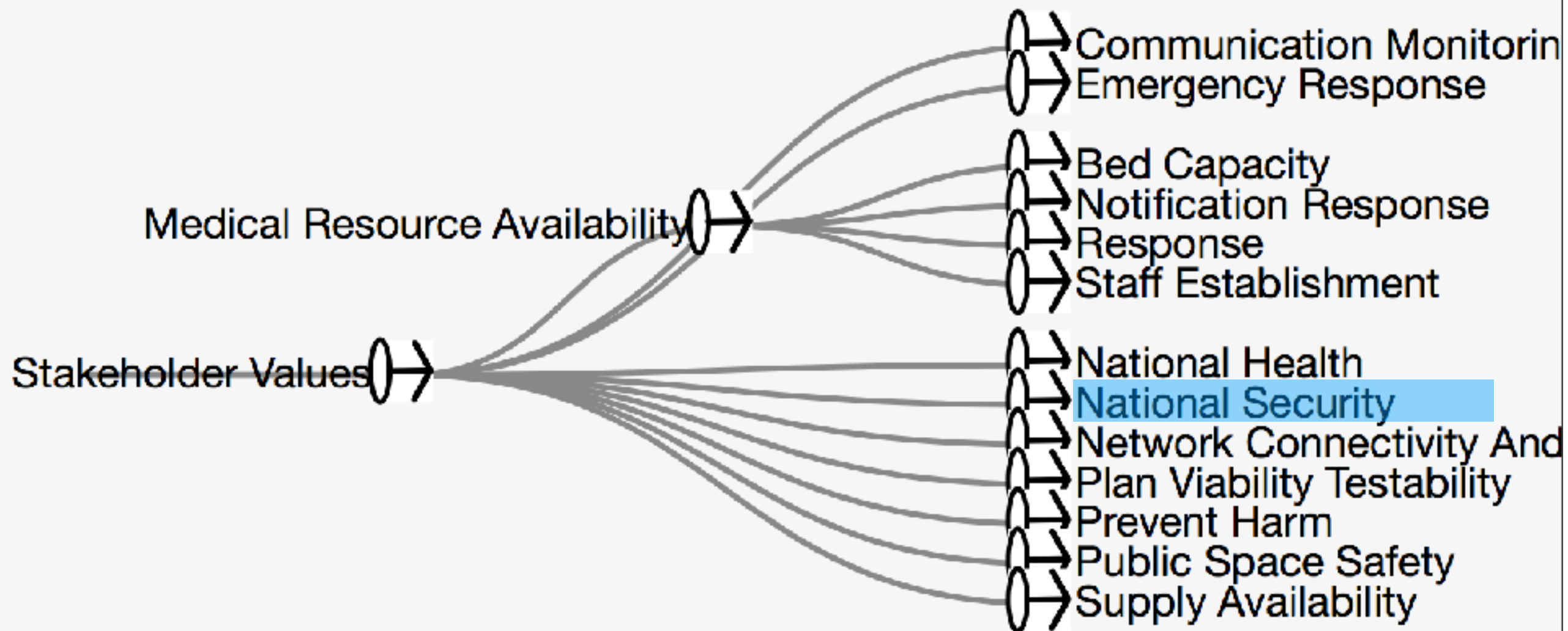
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Map of Stakeholders, Values, Solutions, and Costs

From 'Prevent Terrorist Attacks exercise 2017



Example of a stakeholder valued 'Benefits' Set

From 'Prevent Terrorist Attacks' exercise 2017
BCS Course, London

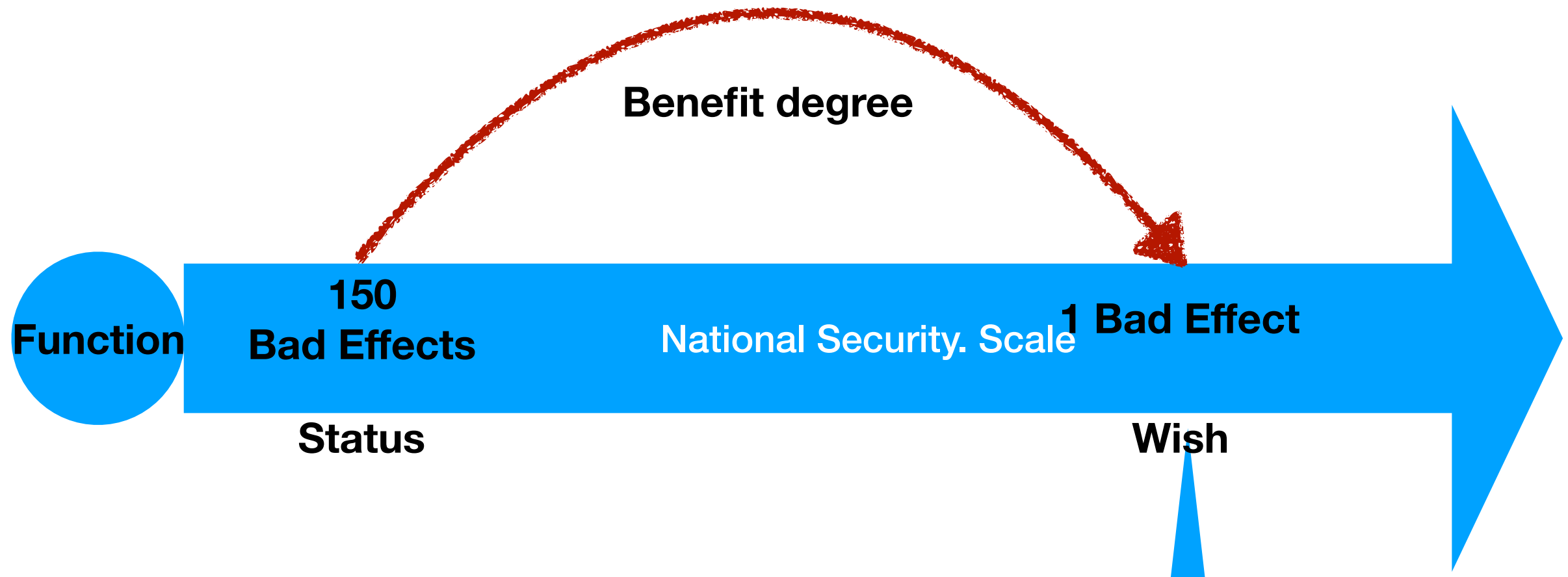
Security Value Quantification with Stakeholders

 <u>National Security</u>		 Permalink
<u>Business Value</u> <i>Label?</i>		(✎ by tomgilb - 2 months ago)
Is Part Of: Stakeholder Values Value		
Ambition Level: to reduce terrorist attacks, and identify potential terrorist attacks, and regulate cyber information		
Scale: Number Negative [Effects] on [Stakeholders] from [Attack Types] under [Conditions] in [Places] per year for given [Area]		
Stakeholders: Prime Minister, Casualties, Council Representatives, Police, Relatives Of Victims, Volunteers		
Status: Level: 150 Number Bad Stuff [Effects = { Death }, Stakeholders = { <All> }, Attack Types = { Vehicle Attack,Knife Attack,Gun Attack }, Conditions = { High		
Wish: Level: 10 Number Bad Stuff [Effects = { Death }, Stakeholders = { <All> }, Attack Types = { Vehicle Attack,Knife Attack,Gun Attack }, Conditions = { High A		
Record: Level: 1 Number Bad Stuff [Effects = { Death }, Stakeholders = { <All> }, Attack Types = { Vehicle Attack,Knife Attack,Gun Attack }, Conditions = { High		

This structure of requirements is in 'Planguage'. Which is specified in books 'Competitive Engineering' and 'Value Planning'

Specified Benefit level ('10') desired for a deadline, and a set of [Scale Conditions]

The expected 'benefit'



A benefit will have 1 or more knock-on effects, often related to higher level objectives. Sometimes, just 'side effects' $\pm$

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

Security Value Quantification: "Scale" Window detail.

The 'Scale' Parameter, with '[Scale Qualifiers]' defined as a 'Set'

Scale: by tomgilb - 7 minutes ago 0  

Scale Description: 

Number Negative [Effects] on [Stakeholders] from [Attack Types] under [Conditions] in [Places] per year for given [Area]  

Area: defined as:
London, UK, That EU Lot, Norway

Attack Types: defined as:
Vehicle Attack, Knife Attack, Suicide Bomber, Gun Attack, Arson, Cyber Attack, Airplanes, Drone Airborne Toxins, Radio Interference,

Conditions: defined as:
High Alert, Surprise, Crowd, High Profile Target, Cultural Attack, Weather Conditions, Secondary Attack,

Effects: defined as:
Death, Casualty, Shock, Fear, Property Loss, Money Loss, Communications Loss, Backlash/Revenge, Cyber Hacking, Radio Interference,

Places: defined as:
City, Religious Place, Festival, Protest, Tower Buildings, Airports, Train Stations, Bus Stations, Mobile Mast, Data Exchange Point,

Stakeholders: defined as:
Children, Parents, Families, Police, Firefighters, Ambulance, Medical, Politicians, Property Owners, Councils, Schools, Security Controller, Chief Security Officer, Telecom Provider, Mobile Network Provider,

Short Description: 

Time Units:  

Security Value Quantification: The 'Scale' Parameter, with '[Scale Qualifiers]' defined

Scale: by tomgilb - 7 minutes ago 0

Scale Description: ?

Number Negative [Effects] on [Stakeholders] from [Attack Types] under [Conditions] in [Places] per year for given [Area]

Area: London

Attack Types: Vehicle, Airborne Toxins, Radio Interference,

Conditions: defined as:
High Alert, Surveillance, Secondary Attack,

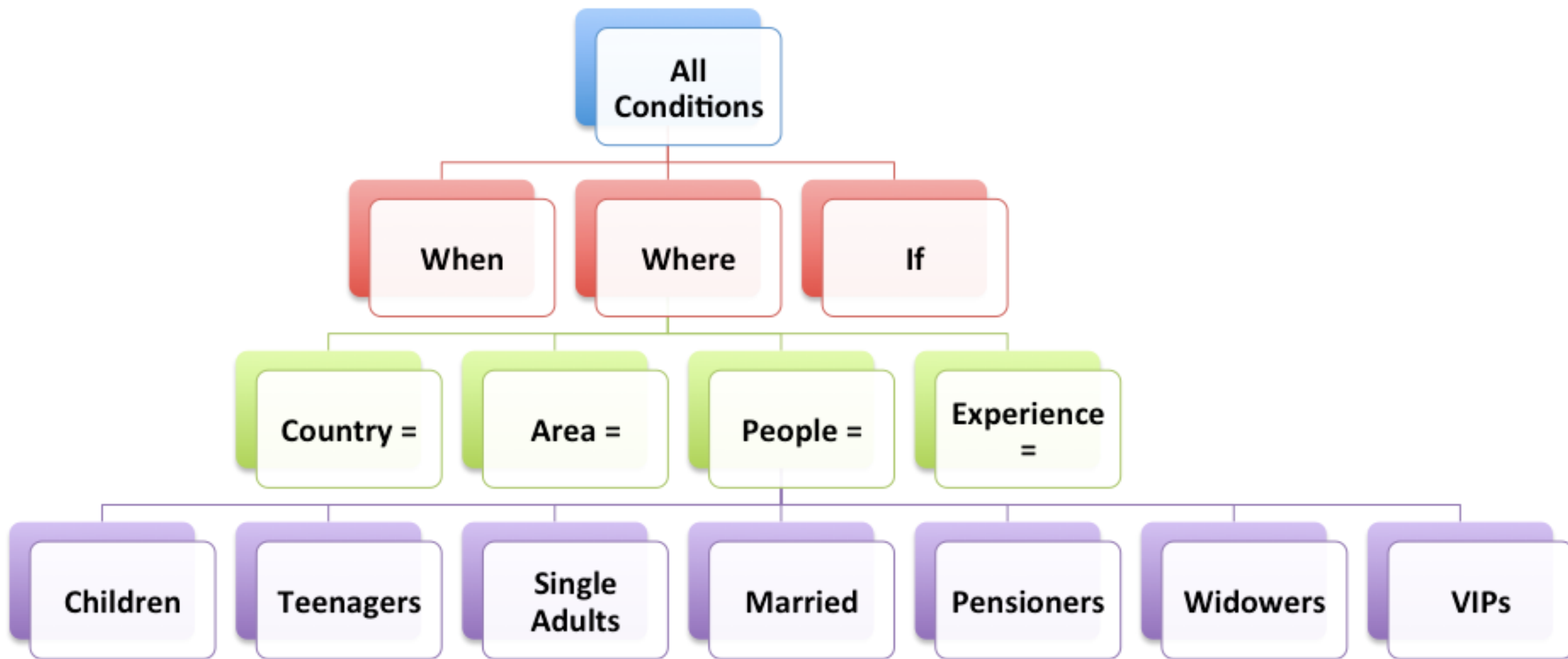
Effects: defined as:
Death, Casualty, Shock, Fear, Property Loss, Money Loss, Communications Loss, Backlash/Revenge, Cyber Hacking, Radio Interference,

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Short Description: **Time Units:**

Why is this 'Scale Qualifier' mechanism interesting for Benefits Management?



Examples of Scalar Parameter Decomposition

Source: Gilb, 'Value Planning': Figure 1.9 D. One qualifier, like 'People', can have a well-defined, but expandable, set of qualifier instances (like 'Married'). Each of these can have a formal written definition, when that is useful. Sometimes the term, like 'Pensioners' is obvious enough for the planning purpose. But you might like to define 'VIPs

Security Value Quantification: The 'Scale' Parameter, with '[Scale Qualifiers]' defined

Why is
this '[Scale Qualifier]' mechanism
interesting for Benefits

[Scale Qualifiers]

1. are useful for several purposes:
2. invite a first-level decomposition of the Value Dimensions (space, event type, people types)
3. this permits second-level decomposition (like types of People)
4. this forces us to recognise all the 'players' explicitly
5. this invites us to account for all possible combinations: thorough analysis
6. we can then select both 'critical' and 'valuable' combinations of parameters for prioritisation, for early benefit delivery incrementally
7. this leads to simplification of each benefit delivery step
8. and it leads to a method for 'scaling up' to the full benefits problem solution
9. each benefit delivery step is effectively a pilot or trial of the solutions: learn early
10. we have the opportunity to learn new interesting members of a parameter set as we progress
11. the sets of parameter-members can be cumulated in time, and shared with your community, so that new projects start with more wisdom, about what they should consider

Area: defined as:
London, UK,

Attack Types: defined as:
Vehicle Attack, Knife

Conditions: defined as:
High Alert, Surprise

Effects: defined as:
Death, Casualty, Sh

Places: defined as:
City, Religious Plac

Stakeholders: defined as:
Children, Parents, P
Chief Security Offic

Short Description:

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

 **National Security**

Business Value **Label?**

(✎ by tomgilb - 21 minutes ago)

Permalink

0.0.1

Is Part Of: Stakeholder Values Value

Ambition Level: to reduce terrorist attacks, and identify potential terrorist attacks, and regulate cyber information

Scale: Number Negative [Effects] on [Stakeholders] from [Attack Types] under [Conditions] in [Places] per year for given [Area]

Stakeholders: Prime Minister, Casualties, Council Representatives, Police, Relatives Of Victims, Volunteers

Status: Level: 150 Number Bad Stuff [Effects = { Death }, Stakeholders = { <All> }, Attack Types = { Vehicle Attack,Knife Attack,Gun Attack }, Conditions = { High Aler.

Wish:

A desired, but uncommitted, performance level, without considering its cost or practicality

Change...

(✎ by tomgilb - 3 months ago) 0  

Scale Level: Number Bad Stuff

10

By When:

19/06/2019

Date format: dd/mm/yyyy (e.g. "5/2/2017" for 5th February 2017)

Qualifiers:  Copy from...

[Effects] =

✕ Death

[Attack Types] =

✕ Vehicle Attack

✕ Knife Attack

✕ Gun Attack

[Places] =

✕ City

✕ Religious Place

✕ Tower Buildings

[Stakeholders] =

✕ <All>

[Conditions] =

✕ High Alert

✕ High Profile Target

✕ Cultural Attack

✕ Secondary Attack

[Area] =

✕ UK

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

➔ National Security

Business Value **Label?**

Is Part Of: Stakeholder Values **Value**

Ambition Level: to reduce terrorist attacks, and identify pote

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Status: Level: 150 Number Bad Stuff [Effects = { Death }, Stakeh

Wish: Change... A desired, but uncommitted, performance level, without considering its cost or practicality

Scale Level: Number Bad Stuff

10

Qualifiers: Copy from...

[Effects] =

× Death

[Attack Types] =

× Vehicle Attack × Knife Attack × Gun Attack

[Places] =

× City × Religious Place × Tower Buildings

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').

(✎ by tomgilb - 3 months ago) 0

By When:

19/06/2019

Date format: dd/mm/yyyy (e.g. "5/2/2017" for 5th February 2017)

[Stakeholders] =

× <All>

[Conditions] =

× High Alert × High Profile Target × Cultural Attack

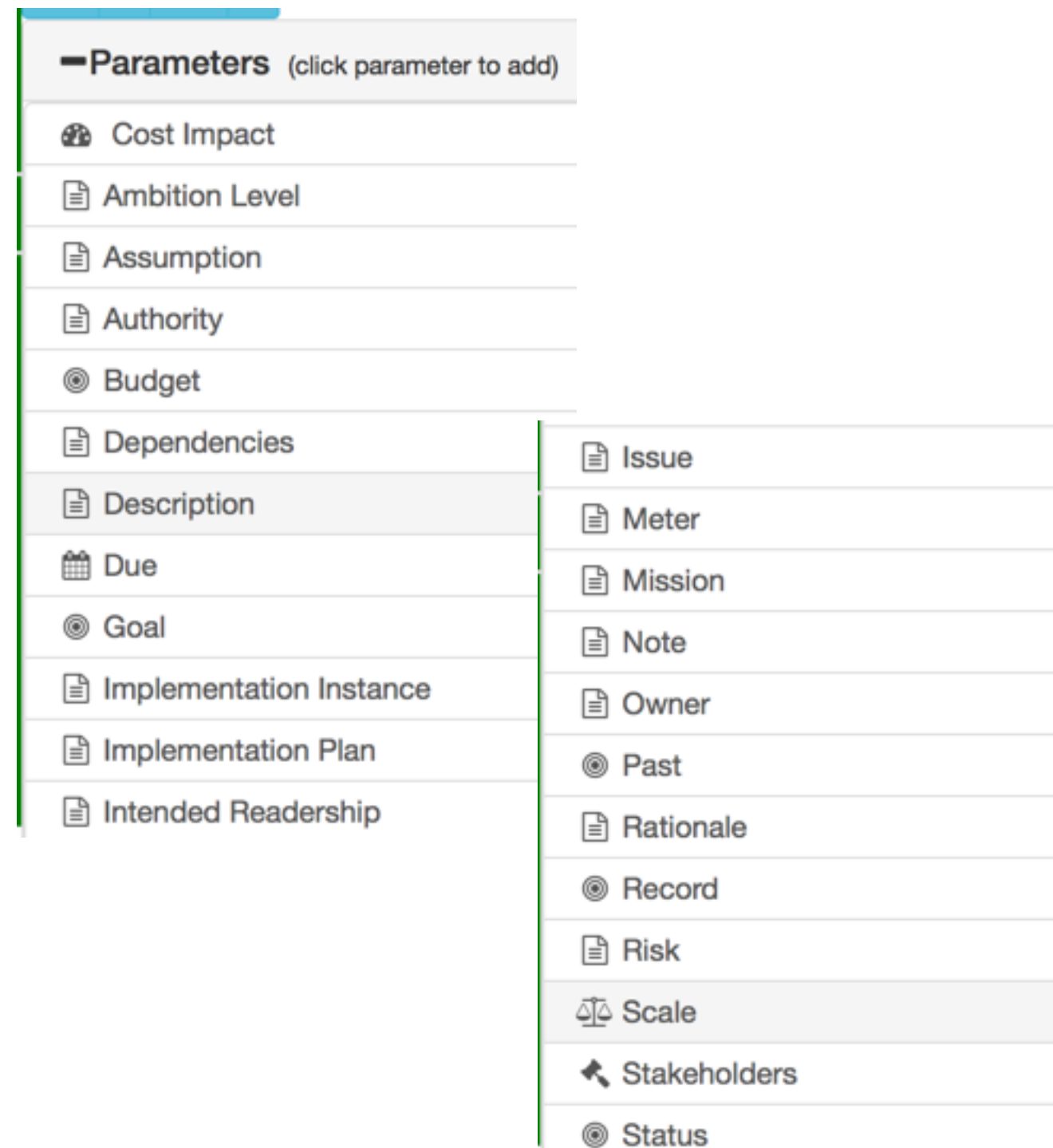
× Secondary Attack

[Area] =

× UK

More 'Background' parameters, for benefit specification, to help us understand benefits environment: to deal with risks, and prioritisation

- We cannot limit ourselves to specifying the benefit requirement itself, alone
- We need to add, as it seems useful, a wide variety of information related the the benefit.
- These 'background' parameters are almost infinite in variety
- and describe the local political and risk environment
- they give us information that helps us more-effectively manage benefit delivery in practice
- for example 'stakeholders', and 'spec owners': help organisation and priority
- for example 'Issues', 'Dependencies', 'Assumptions': help manage risks of failure



Security Strategy:

Type: Top level security strategy.

Responsible Strategy Planner: Tom Gilb,
Chief Planner, Aug 14 2015.

Security Architect: Steven Shad, of Yale Inc
Santa Monica.

Side Effects Analyst: Wendy Bartlett,
Business Analyst.

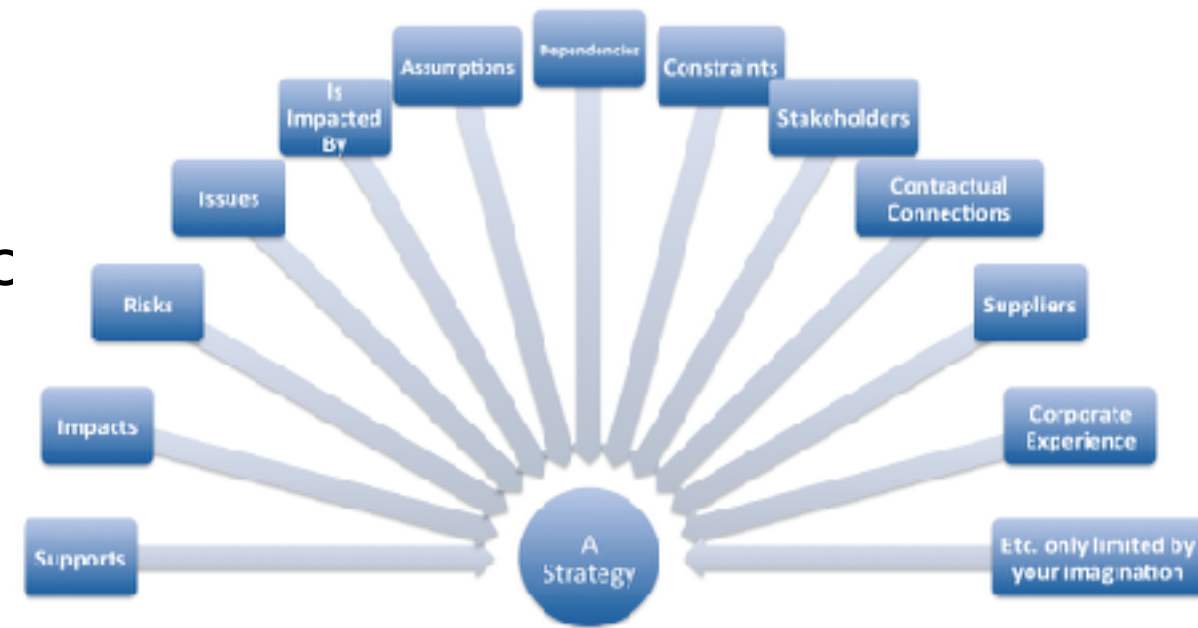
Description: xxxxxxxx (the basis for
analyzing impacts).

Supports: Security Objective.

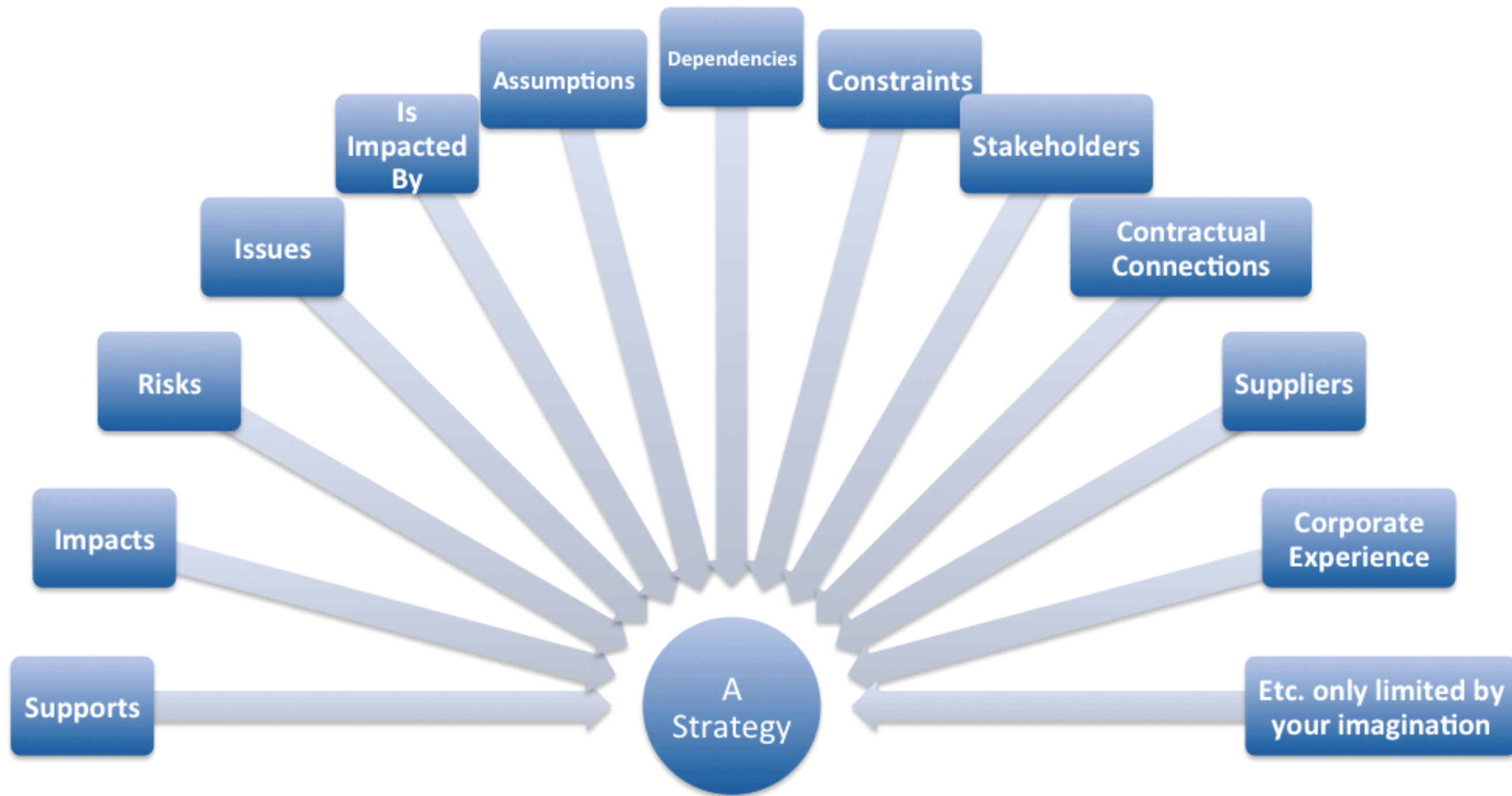
Impacts: Usability, Training Costs, Terrorist
Laws.

Risks: Unknown operational cost, Unknown
Maintenance Cost.

Issues: not thoroughly defined, no contract
guarantees, effects not proven on similar
projects.



**Some 'Background' parameters for
benefit delivery solutions**



Background attributes examples

Source: Value Planning Figure 2.2 B. Some examples of potentially worthwhile strategy 'relationships' to document. These are 'Background' Specification items. They supplement the core Strategy Description.

2. Much better stakeholder analysis.

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

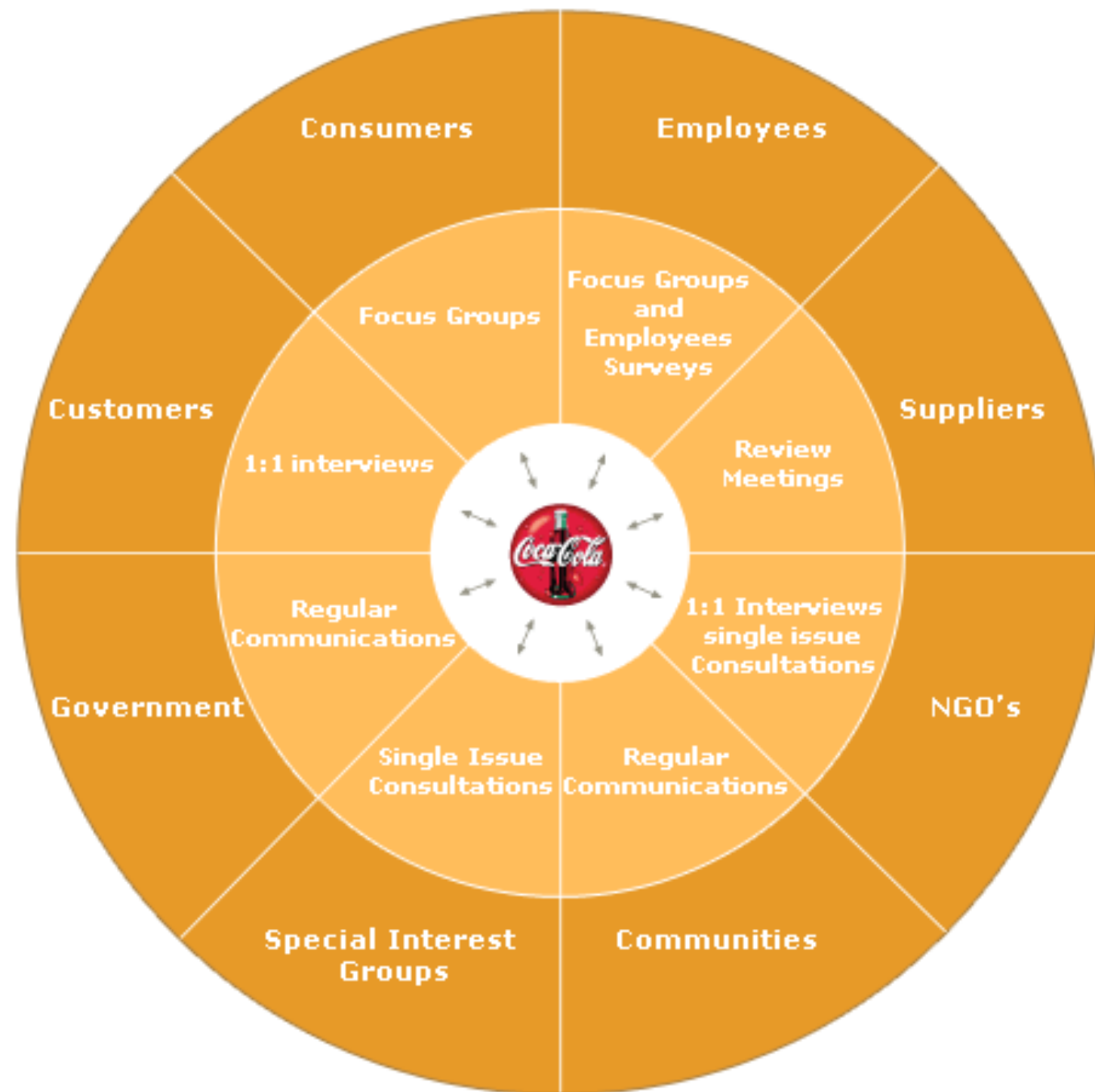
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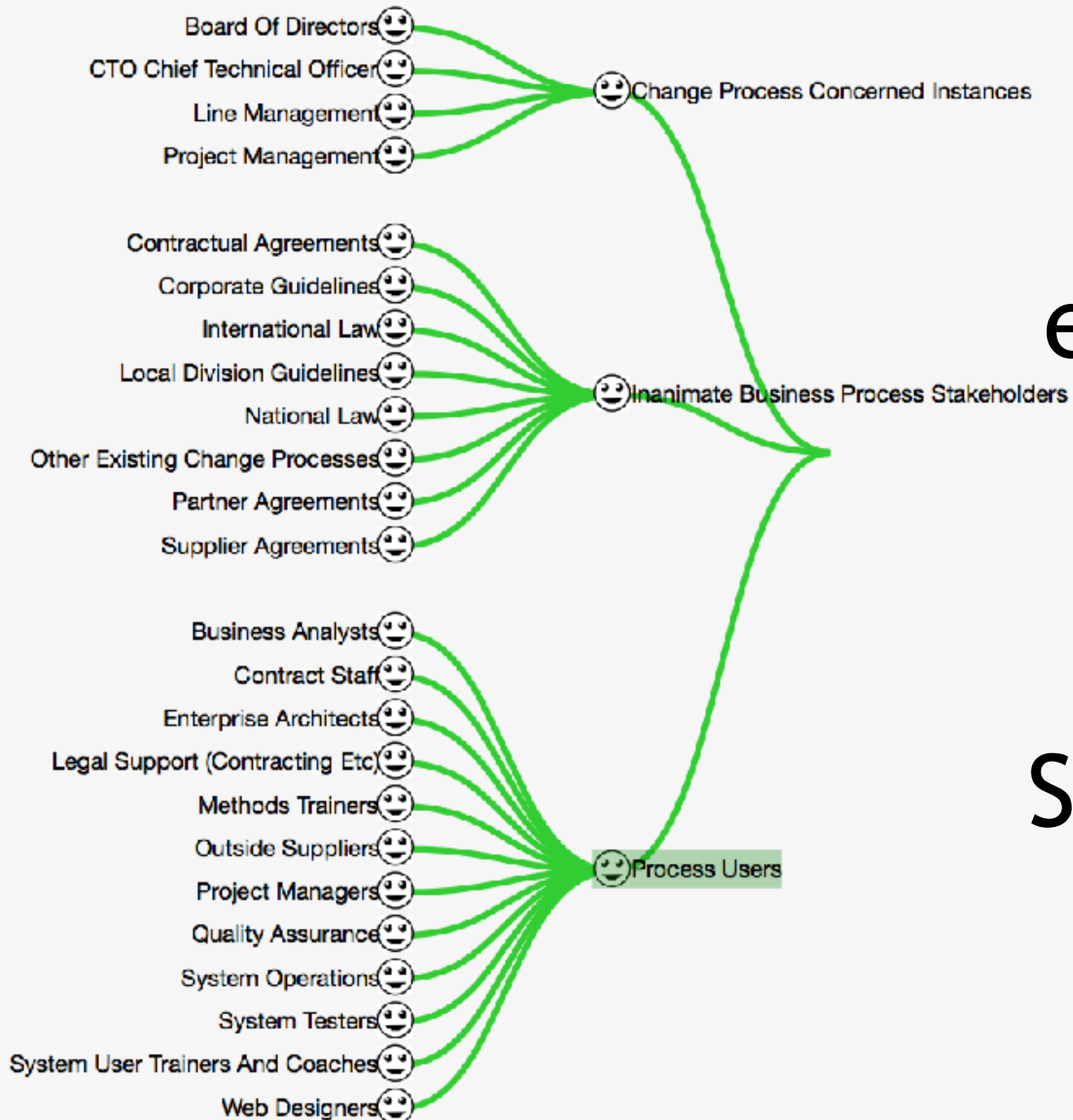
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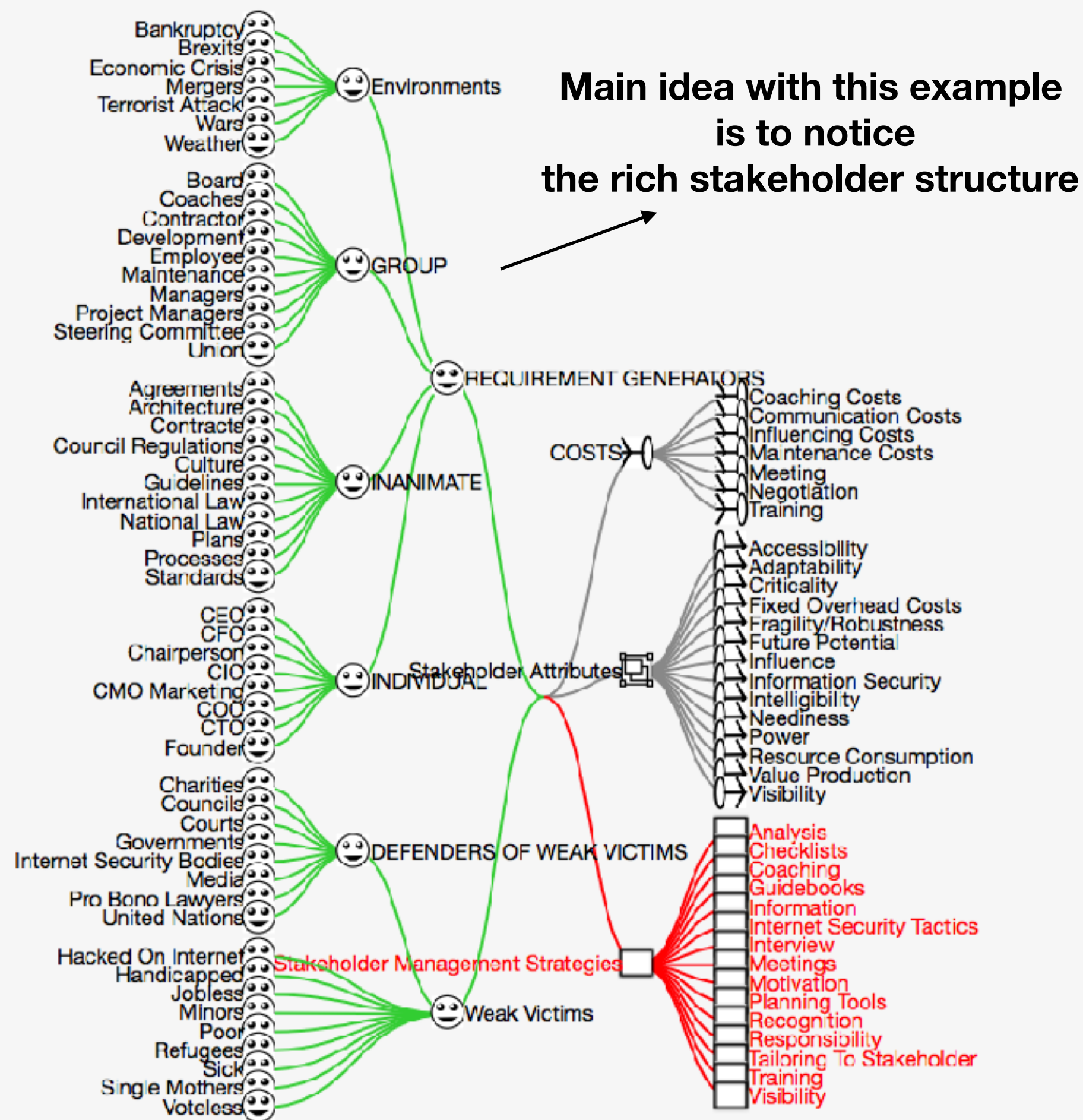
5. A method for dynamic prioritisation of delivery steps based on value for resources wrt risks.

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Some examples of Business Process Stakeholders





Stakeholders Needs and Means diagram

Adaptability

Level? Value Label?

(by tomgilb - 2 months ago)

Permalink

0.0.1

Is Part Of: Stakeholder Attributes Group

Ambition Level: give a high degree of stakeholder ability to respond to planning changes, both in seeing consequences, reviewing them, and com..

Scale: % capability for a [Stakeholder Class] to correctly and within 5 minutes of effort do a defined [Stakeholder Action]

Stakeholders: Architecture, Managers, Project Managers, Steering Committee, Union

Status: Level: 30 % Quick Actions [Stakeholder Class = { <All> }, Stakeholder Action = { <All> }] When 24th June 2017

Wish: Level: 90 % Quick Actions [Stakeholder Class = { <All> }, Stakeholder Action = { <A

Managers

Level? Stakeholder Type Label?

Is Part Of: GROUP Stakeholder Type

Is Stakeholder Of: Adaptability Value Link

Summary:

Description:

Architecture

Level? Stakeholder Type Label?

Is Part Of: INANIMATE Stakeholder Type

Is Stakeholder Of: Adaptability Value Criticality Value

Summary:

Description:

Capturing the relationship between benefits and their stakeholders

Main idea here: we can map all interesting or critical stakeholders for any one benefit /value. And we can map all emerging benefits or values that are interesting for any set of stakeholders.

Level? Stakeholder Type Label?

Is Part Of: INANIMATE Stakeholder Type

Is Stakeholder Of: Adaptability Value Criticality Value Link to existing... Link to new...

Summary:

The corporate internal and external people who provide any class of design, engineering or arc

Source:

tsg

Description:

A1: In house employees with clear architecture function.

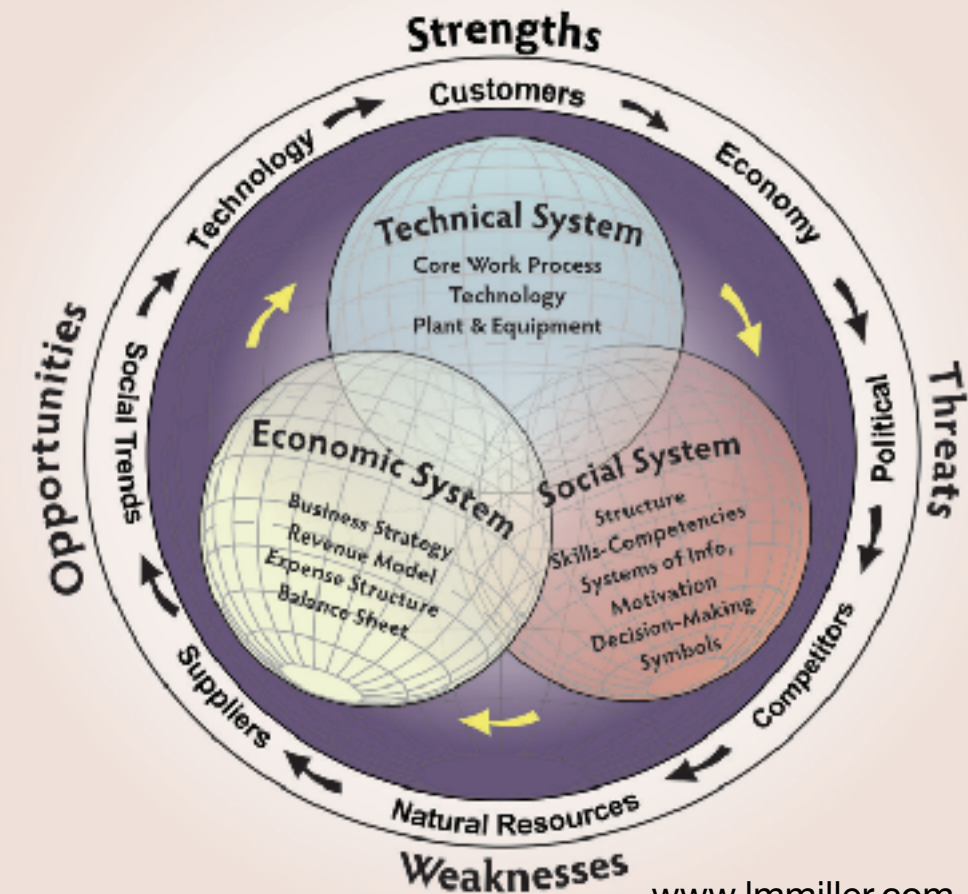
A2. Individual **Contractors** with architecture or design responsibilities

A3. Outside consultancies or architecture companies supplying any level of architecture, designer engineering planning.

Source:

tsg

Lean Organizations as a Whole-System



www.lmmiller.com

Authority: Change...

by tomgilb - 4 minutes ago

0



The Corporate Engineering Manager is responsible for all professional relations with all types of Architecture

Contact: CAM@Corp.com

Source:

Corporate Organisational Policy 2.3 2017

Example of more detail about a stakeholder type

3. A method to estimate the ‘benefit power’ of all architecture and design strategies.

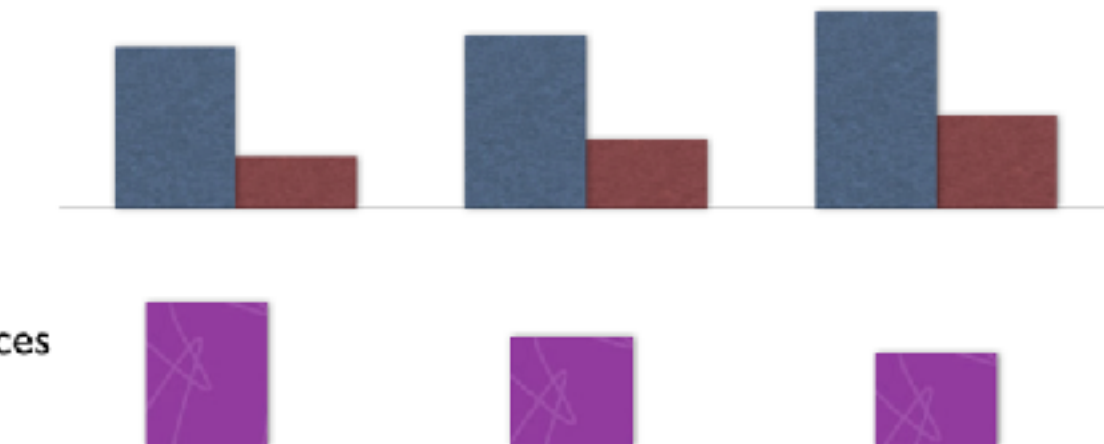
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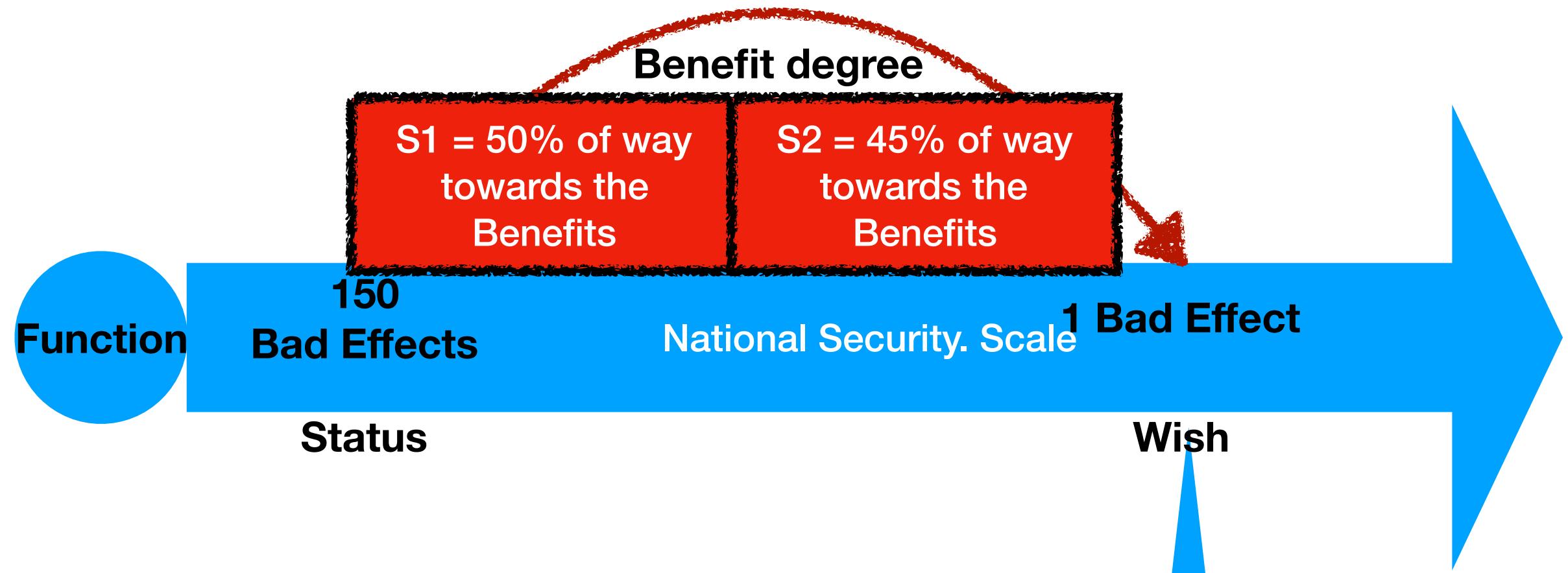
			
Product Values			
Taste	20 %	50 %	90 %
Nutrition	30 %	70 %	90 %
Shelf Life	80 %	30 %	-10 %
Sum Goodies	130 %	150 %	170 %
Resources	40 %	60 %	80 %

Goodies
Resources

Goodies for Resources



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' $\pm$

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

Stakeholder Value And Strategy Table

⚙ Settings... + Add ▾ ↔ Sort ▾ 📄 Duplicate... Δ: INCREM			
Requirements		☐ Analysis	
↳ <u>Accessibility</u> Status: 7 → Wish: 1 Day...	Δ: Δ%:	Δ: -6 Δ%: 100 %	100%
↳ <u>Adaptability</u> Status: 30 → Wish: 90 % Q...	Δ: Δ%:	Δ: 20 Δ%: 33 %	33%
↳ <u>Criticality</u> Status: 40 → Wish: 1 % F...	Δ: Δ%:	Δ: -10 Δ%: 26 %	26%
↳ <u>Fixed Overhead Costs</u> Status: 120 → Wish: 20 % A...	Δ: Δ%:	Δ: -30 Δ%: 30 %	30%
↳ <u>Future Potential</u> Status: 0 → Wish: 100 % a...	Δ: Δ%:	Δ: 20 Δ%: 20 %	20%

Estimation of potential benefits from implementing the 'Analysis' solution

main effect, and side effects

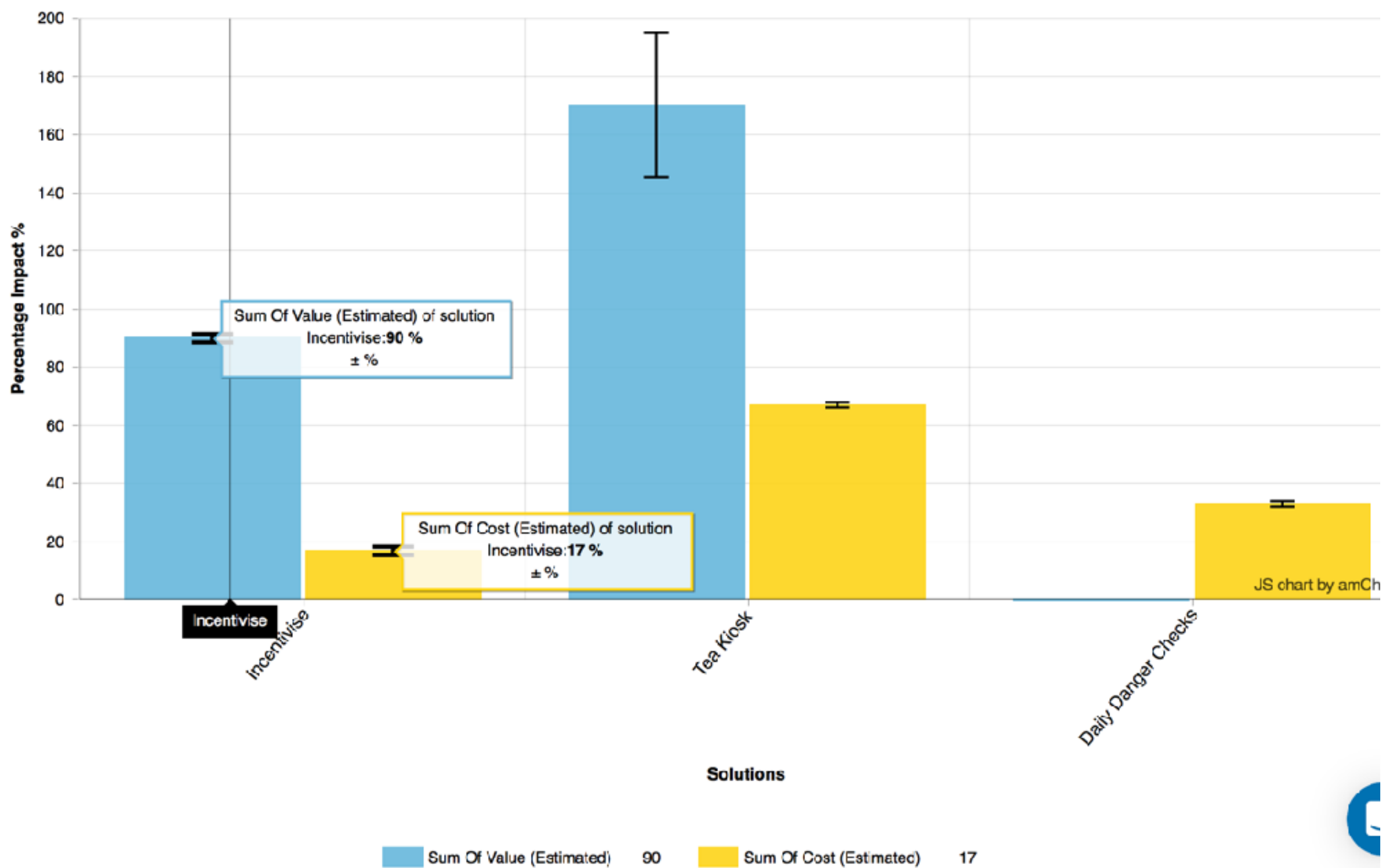
Delta - 6 means we estimate an improvement beyond the baseline of 6

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 deliver... Δ%: [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 0.6) -100%	ΣΔ%: 40 ± 180 %
(→) Building Security Status: 50 → Wish: 10 % l... % of [Emergency Types] which in... Δ%: [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... Δ%: [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 % 706 %	-50 ± 185 % -65 %	
(→) Method Implementation Cost Status: 0 → Budget: 3m \$ Total monetary cost in US Dollars fo... Δ%: [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'

Requirements	☐ Incentivise	☐ Tea Kiosk	☐ Daily Danger Checks	Su
Project Timeliness Status: 10 → Wish: 5 % % time overrun necessary to deliver [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%	Row: User Productivity Col: Tea Kiosk Scale: number of minutes for a [user] to complete a [task] Value Impact: Change... Estimate: minutes Δ -7 ± 3 Actual: minutes Δ scale val ± 0 Credibility: 0.8 In-house measurements of design / strategy correlate to external sources Evidence: we have used tea kiosks and several competitors have which save about seven minutes for users Source: https://www.tripadvisor.com/ShowUserReviews-g154995-d4871495-r475327934-McDonald_s-London_Ontario.html Add Comment...
Building Security Status: 50 → Wish: 10 % I... % of [Emergency Types] which in fact [Emergency Types = { Earthquake }] 30th June 2018	50 ± 0 0 % Injury 0 ± 0 % 0 % (x 0.0) 0%	50 ± 0 0 % Injury $0 \pm \text{NaN}$ % 0 % (x 0.6) 0%	30 ± 10 -20 % Injury 50 ± 25 % 15 % (x 0.3) 50%	
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%	
Sum Of Values: Credibility - adjusted:	90 ± 0 % 32 %	170 ± 50 % 106 %	-50 ± 185 % -55 %	
Method Implementation Cost Status: 0 → Budget: 3m \$ Total monetary cost in US Dollars fo... [Project Cost Size = { }] 30th June 2017	$500k \pm 0$ 500k \$ 17 ± 0 % 34 % (x 0.0) 17%	$2m \pm 0$ 2m \$ 67 ± 0 % 134 % (x 0.0) 67%	$1m \pm 0$ 1m \$ 33 ± 0 % 66 % (x 0.0) 33%	
Sum Of Development Resources: Credibility - adjusted:	17 ± 0 % 34 %	67 ± 0 % 134 %	33 ± 0 % 66 %	
Value To Cost:	5.30	2.50	-1.50	

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.

The screenshot shows a web application interface with a table of project metrics. The table has columns for 'Requirements', 'Incentivise', 'Tea Kiosk', 'Daily Danger Checks', and 'Sum'. The rows include 'Project Timeliness', 'Building Security', 'User Productivity', 'Sum Of Values', 'Method Implementation Cost', 'Sum Of Development Resources', and 'Value To Cost'. Each row contains numerical values, percentages, and status indicators (green for positive, red for negative). The interface also includes a sidebar with icons for information, calendar, clock, bar chart, pie chart, dollar sign, and lightbulb.

Requirements	Incentivise	Tea Kiosk	Daily Danger Checks	Sum
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Sum Of Values: Credibility - adjusted:	90 ± 0 % 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 1m \$ 33 ± 0 % 66 % (x 0.0) 33%	117 ± 0 % 117%
Sum Of Development Resources: Credibility - adjusted:	17 ± 0 % 34 %	67 ± 0 % 134 %	33 ± 0 % 66 %	
Value To Cost:	5.30	2.50	-1.50	

4. A method for decomposing big strategies into smaller benefit deliverable strategies.

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

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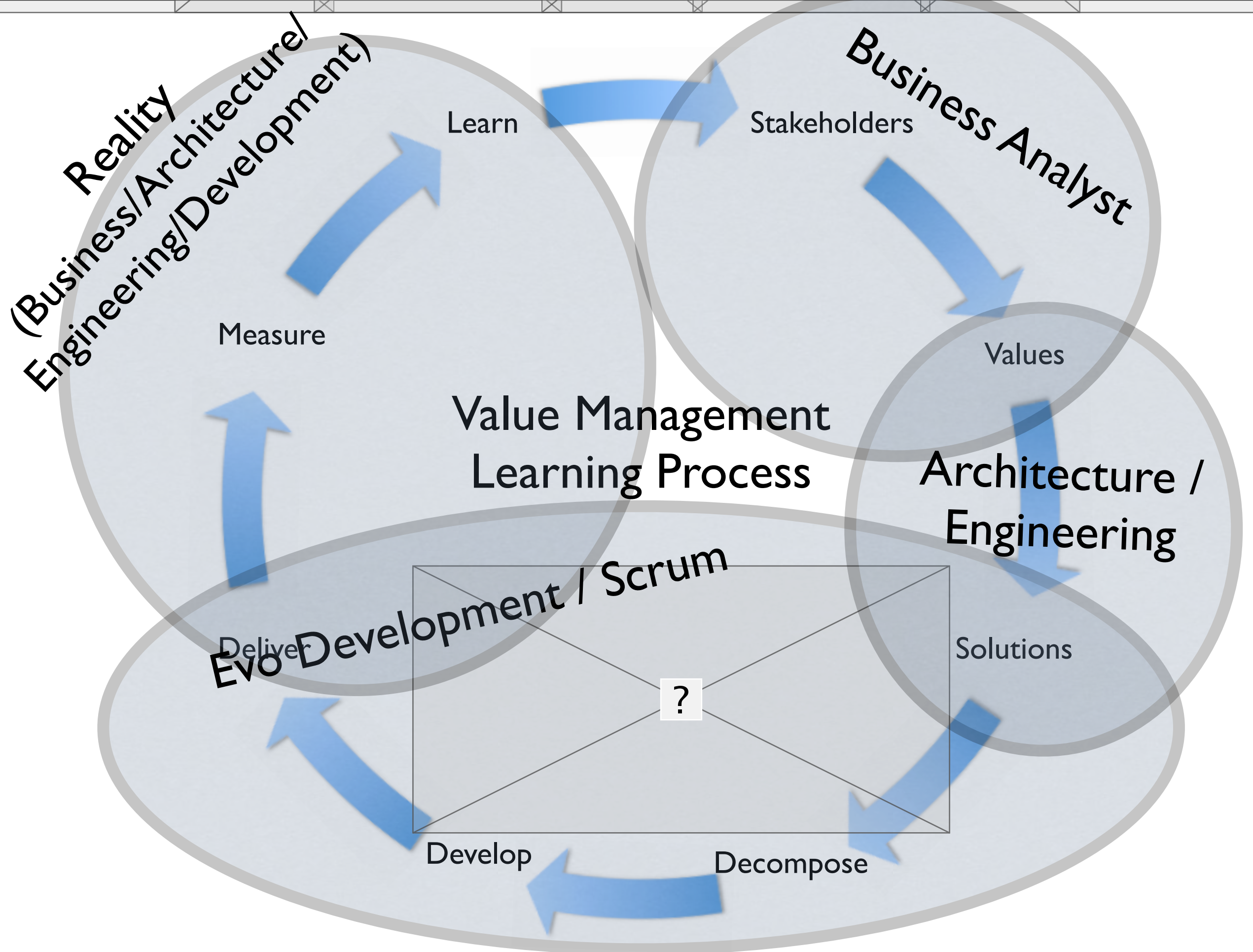
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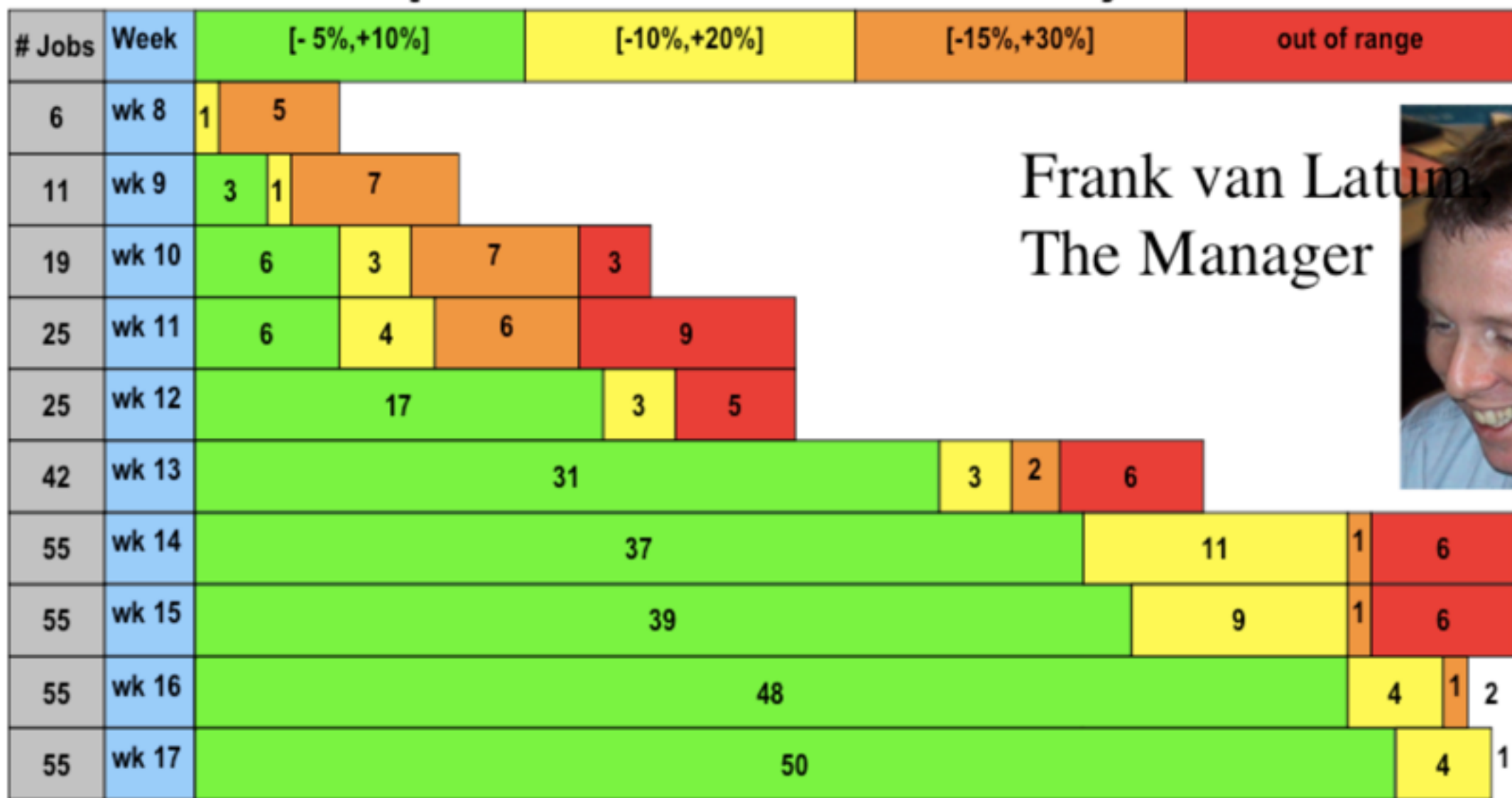
This presentation will present these tools and participants will get a free digital copy of the book "Value Planning"

-
1. use the [scale parameters] to decompose
 2. use the Impact Tables to Decompose
 3. decompose strategies so that
 1. any sub-strategy can be implemented independently of the other
 2. all sub-strategies will deliver measurable benefits alone

G1: Goal [People = Service , Task = All, Environment = {**Shop + All Not Done Yet** } 10 minutes.

G2: Goal [People = {**Salesperson + Sales Assistant**} , Task = Sign Contract, Environment = All] 30 minutes.





Frank van Latum,
The Manager



Figure 5.6 Philips Value Delivery Cycles Results. The % is the accuracy of predicting a production run of electronic circuits, before that actual run. Green is good, red is bad.

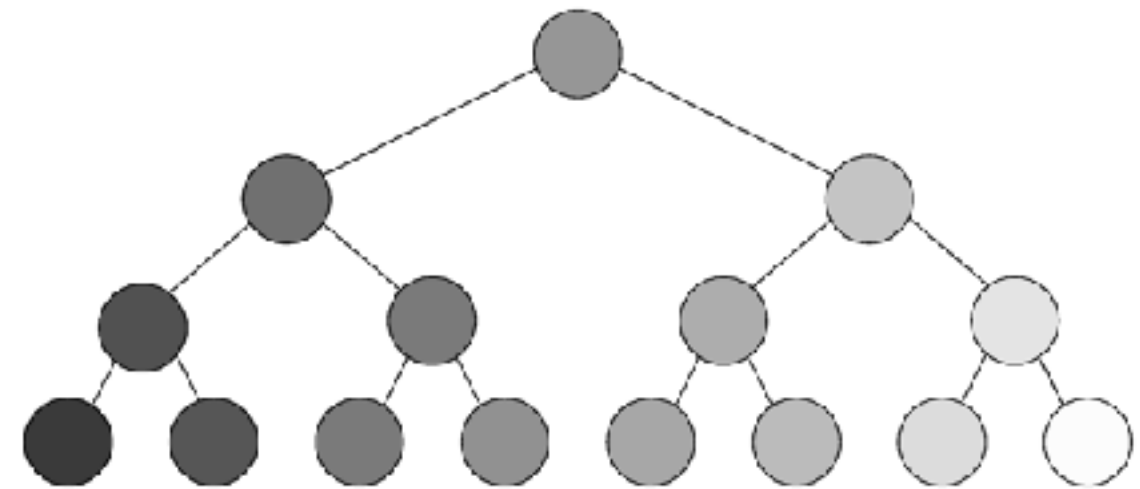
Director said impossible to divide deliveries in small increment. Project was stuck failure mode.
Source 'Value Planning' (case study 5.6)

How to decompose systems into small evolutionary steps: (a list of practical tips)

1. Believe there is a way to do it, you just have not found it yet!⁴
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 stakeholders: users, salesperson, installer, testers or customer. However small the positive contribution, something is better than nothing.
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 stakeholder. Think 'tomorrow' or 'next week.' Think of one interesting improvement.
6. Focus on the results. (You should have them defined in your targets. Focus on moving *towards* the goal and budget 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 stakeholders won't like it. If you are focusing on the 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 stakeholder in practice, now, where they really need it, you will be forgiven a lot of 'sins'!
13. You can understand things much better, by getting some practical experience (and removing some of your fears).
14. Do early cycles, on *willing local mature* parts of your user/stakeholder community.
15. When some cycles, like a purchase-order cycle, take a long time, initiate them early (in the 'Backroom'), 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', stakeholders, or end user. They probably have dozens of suggestions.
19. Talk with end users and other stakeholders 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.

⁴ Working within many varied technical cultures since 1960 I have never found an exception to this – there is always a way!

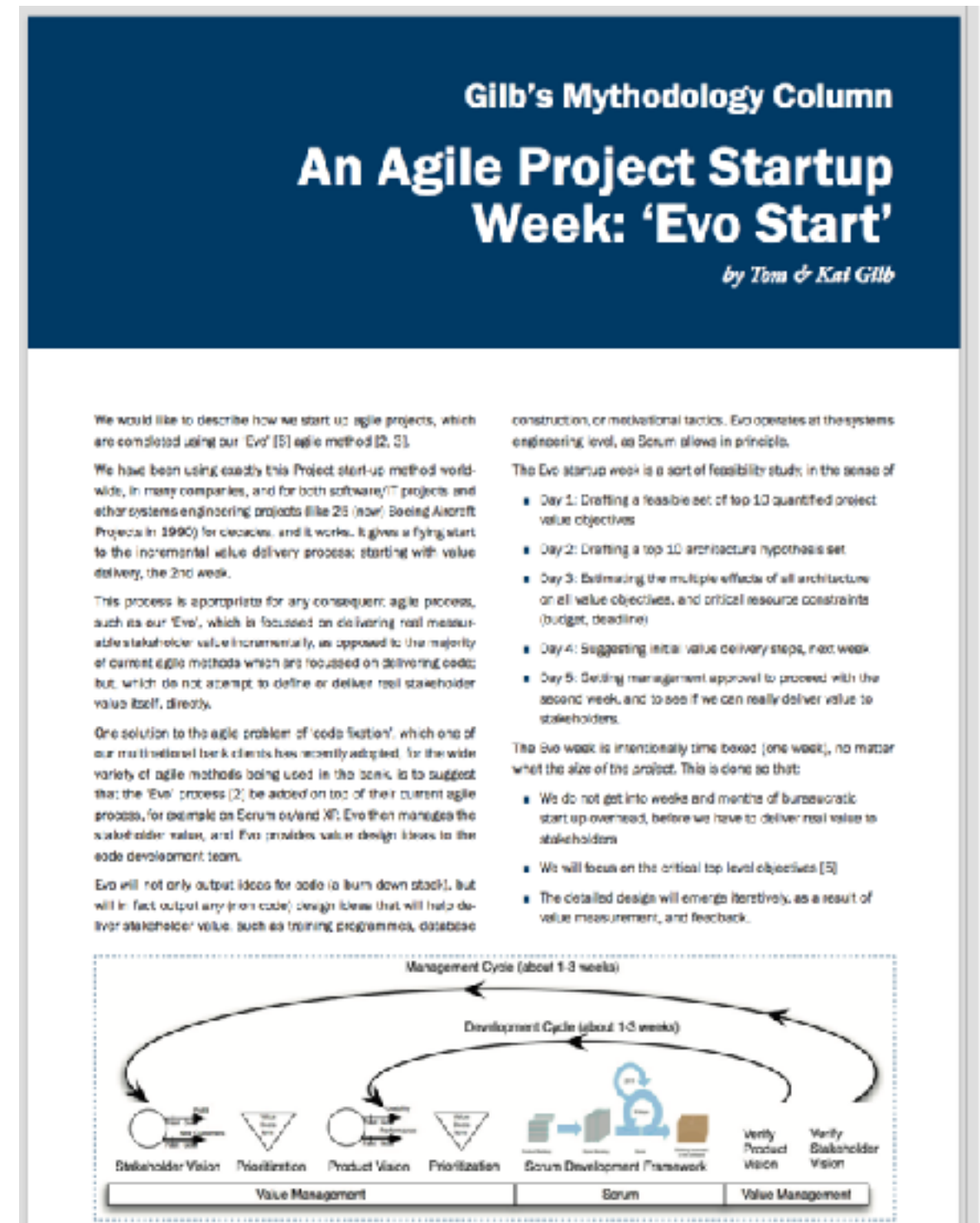
20 principles of decomposition



Decomposition of Projects paper
concepts.gilb.com/dl41

• The One-Week Project-Startup Process to launch *real* value delivery.

- We practice a 1 week project startup
- follow by weeks of value stream delivery
- of increments of the value objectives
- day 1, the top 10 critical value objectives are drafted
- day 4 the next week value delivery 'sprint' is planned



The 'Evo' Planning Week at DoD



- **Monday**
 - Define top Ten critical objectives, quantitatively
 - Agree that these are the main points of the effort/project
- **Tuesday**
 - Define roughly the top ten most powerful strategies
 - for enabling us to reach our objectives on time
- **Wednesday**
 - Make an Impact Estimation Table for Objectives/Strategies
 - Sanity Test: do we seem to have enough powerful strategies to get to our Goals, with a reasonable safety margin?
 - **A tool for decomposing the value steps and seeing best value for resources**
- **Thursday**
 - **Divide into rough delivery steps (annual, quarterly)**
 - **Derive a delivery step for 'Next Week'**
- **Friday**
 - Present these plans to approval manager (Brigadier General Pellicci)
 - get approval to deliver next week
 - (they can't resist results next week!)



US Army Example: PERSINSCOM

Category	Value	Weight	Score	Rank	Weighted Score	Rank
1. Personnel Management	100	10	1000	1	1000	1
2. Training	80	8	640	2	640	2
3. Logistics	60	6	360	3	360	3
4. Health Services	40	4	160	4	160	4
5. Medical Services	30	3	90	5	90	5
6. Dental Services	20	2	40	6	40	6
7. Veterinary Services	10	1	10	7	10	7
8. Chaplain Services	5	0.5	2.5	8	2.5	8
9. Religious Services	2	0.2	0.4	9	0.4	9
10. Other Services	1	0.1	0.1	10	0.1	10
Total	250	25	2500		2500	

Requirements and Architecture

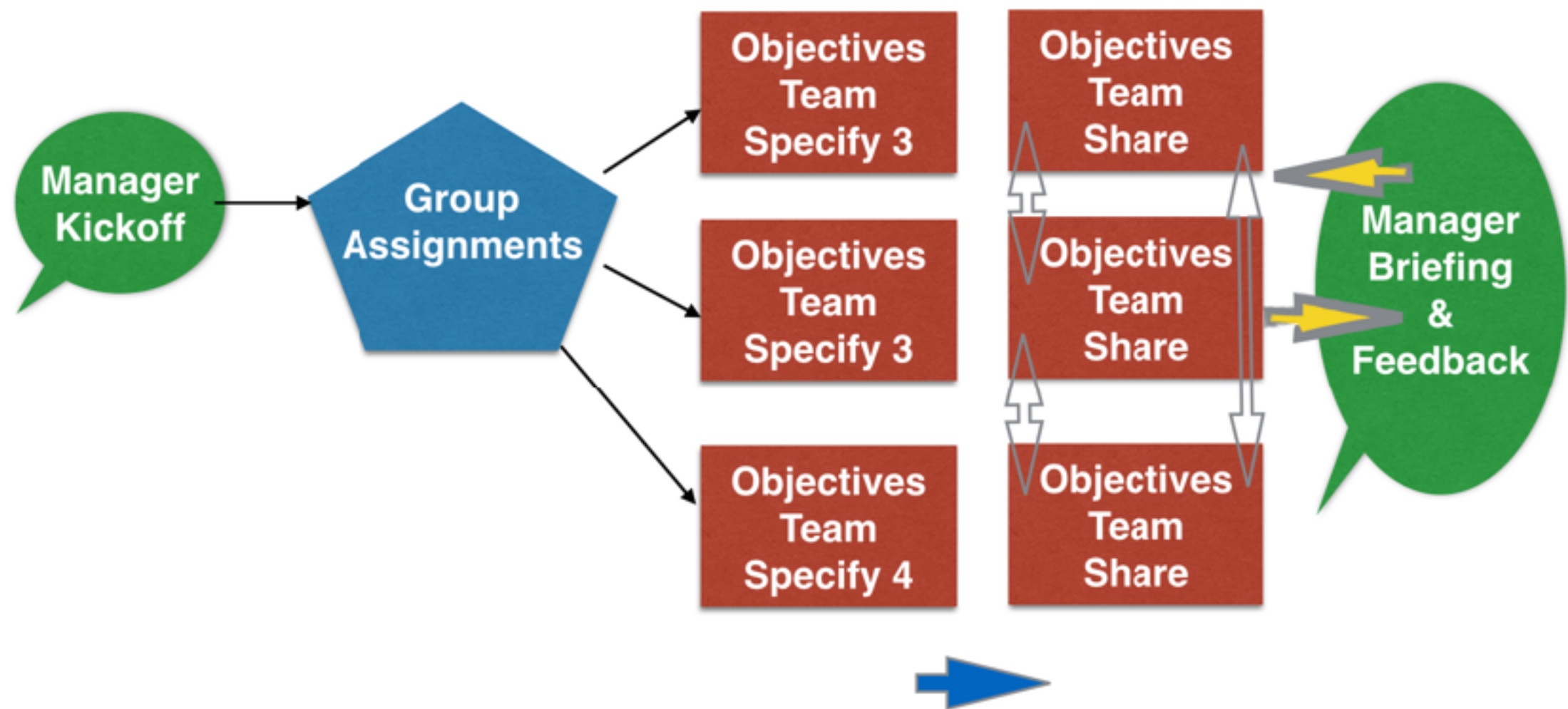
Requirements
Design
Quality Control
(Construction/Acquisition)
Testing
Integration
Delivery -> Stakeholder
Measure & Study Results



The First Day of the Startup Process

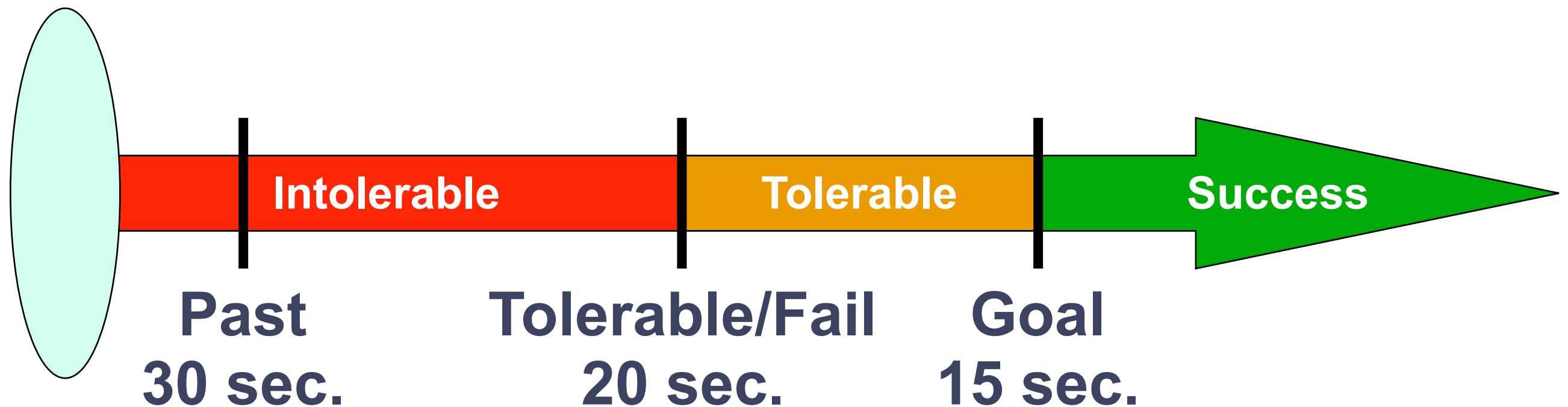
Top Ten Critical Values

a quantification process



Change can be tracked
incrementally in small steps of
attempts at incremental change
and if we feel to have a
successful increment we can
change the strategy so as to get
back on track

Evolutionary Delivery is driven by meeting Stakeholder Value & Product Quality Requirements

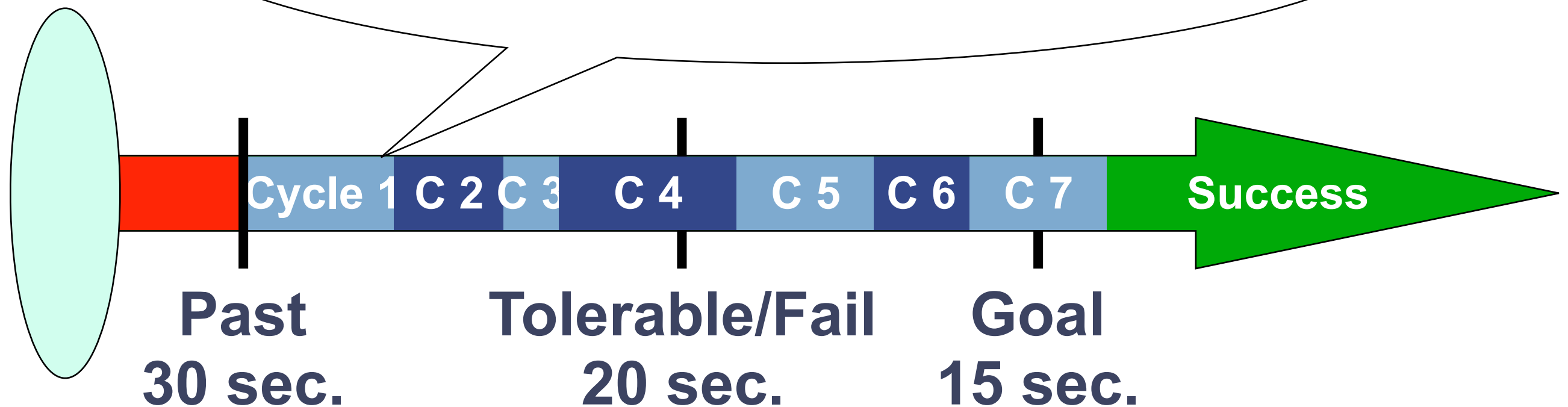


Speed

Scale: seconds to do task

Evolutionary Delivery is driven by meeting Stakeholder Value & Product Quality Requirements

**Each Evolutionary Cycle
aiming to get closer
to the Goals**

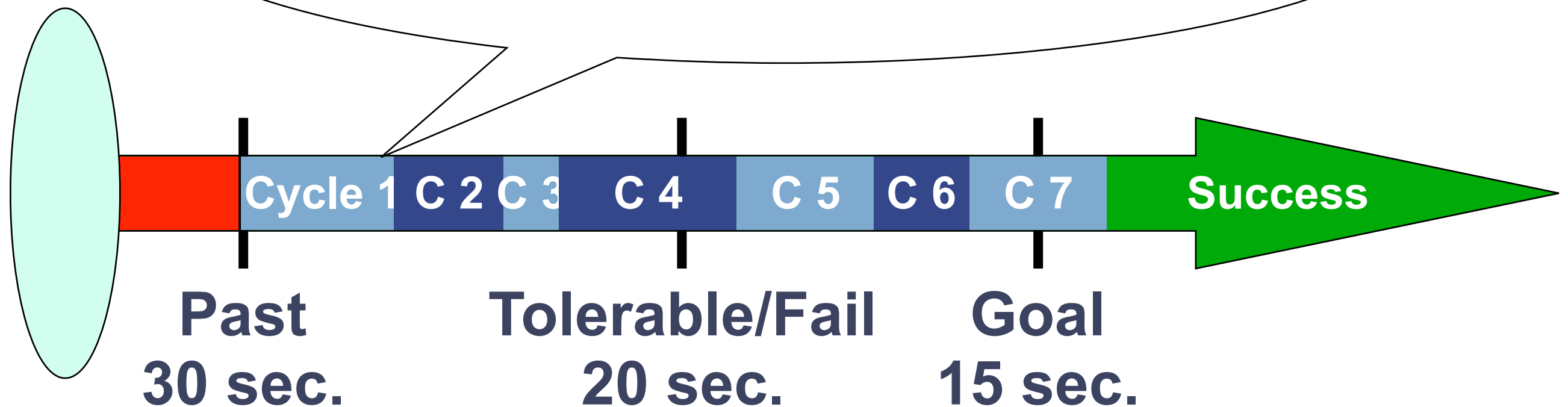


Speed

Scale: seconds to do task

Evolutionary Delivery is driven by meeting Stakeholder Value & Product Quality Requirements

Each Evolutionary Cycle
integrated into a 'working' system



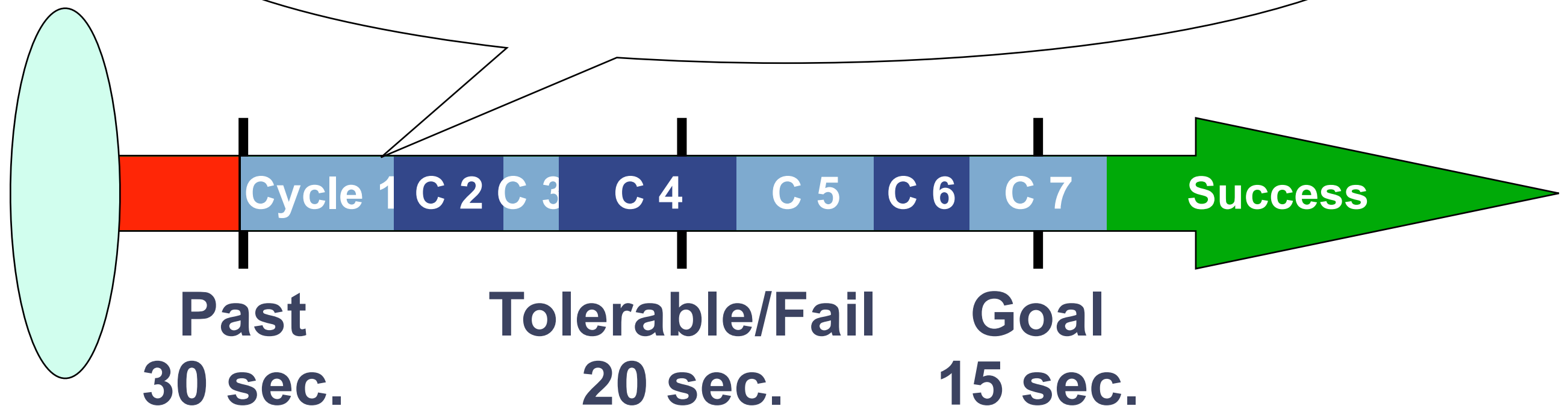
Speed

Scale: seconds to do task



Evolutionary Delivery is driven by meeting Stakeholder Value & Product Quality Requirements

Learning from each Evolutionary Cycle



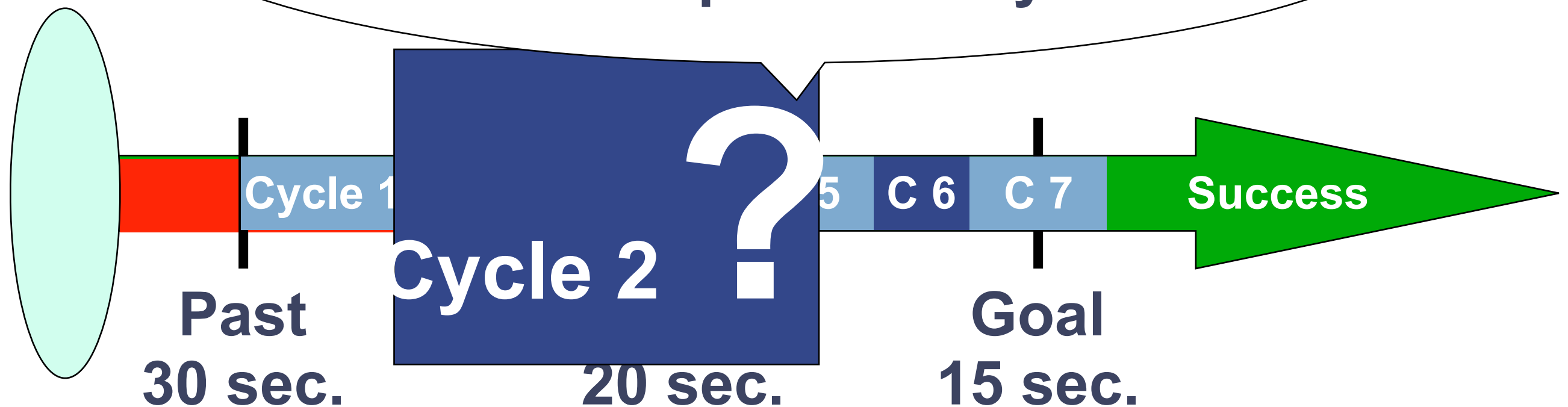
Speed

Scale: seconds to do task



Evolutionary Delivery is driven by meeting Stakeholder Value & Product Quality Requirements

Deciding on the next Cycle,
based on what we learned
from the previous Cycle

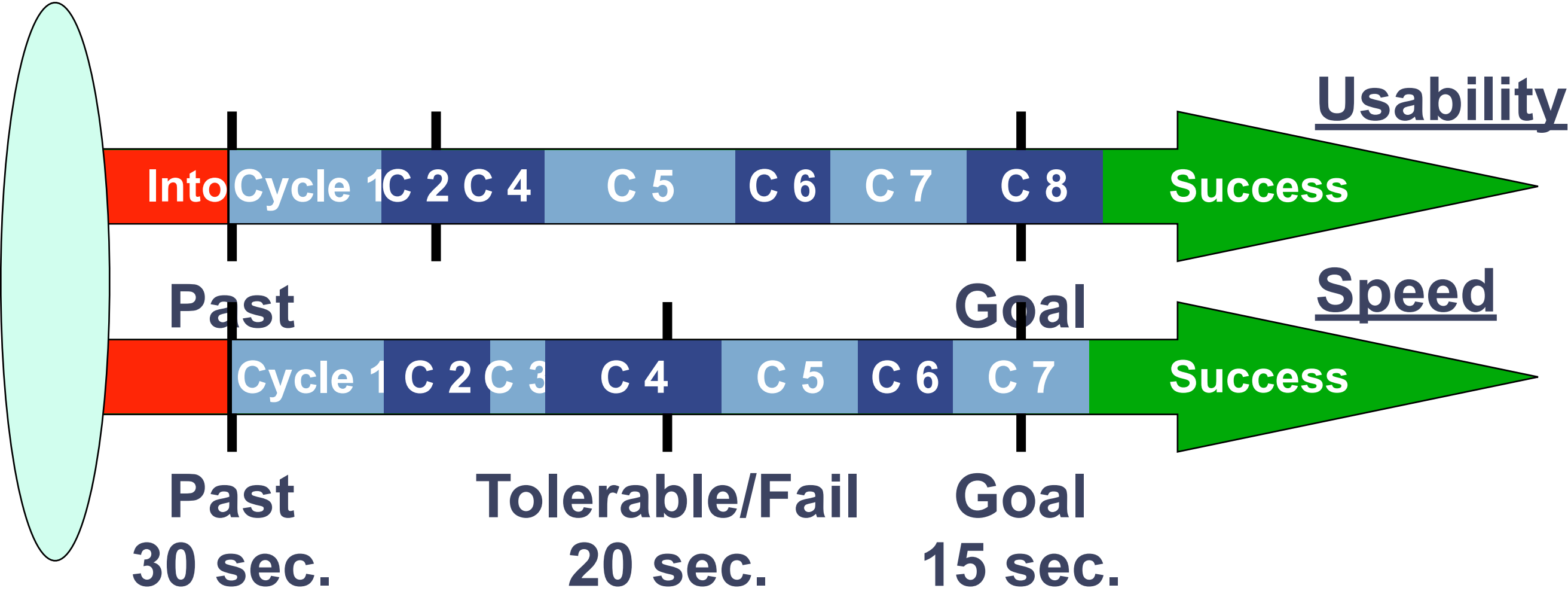


Speed

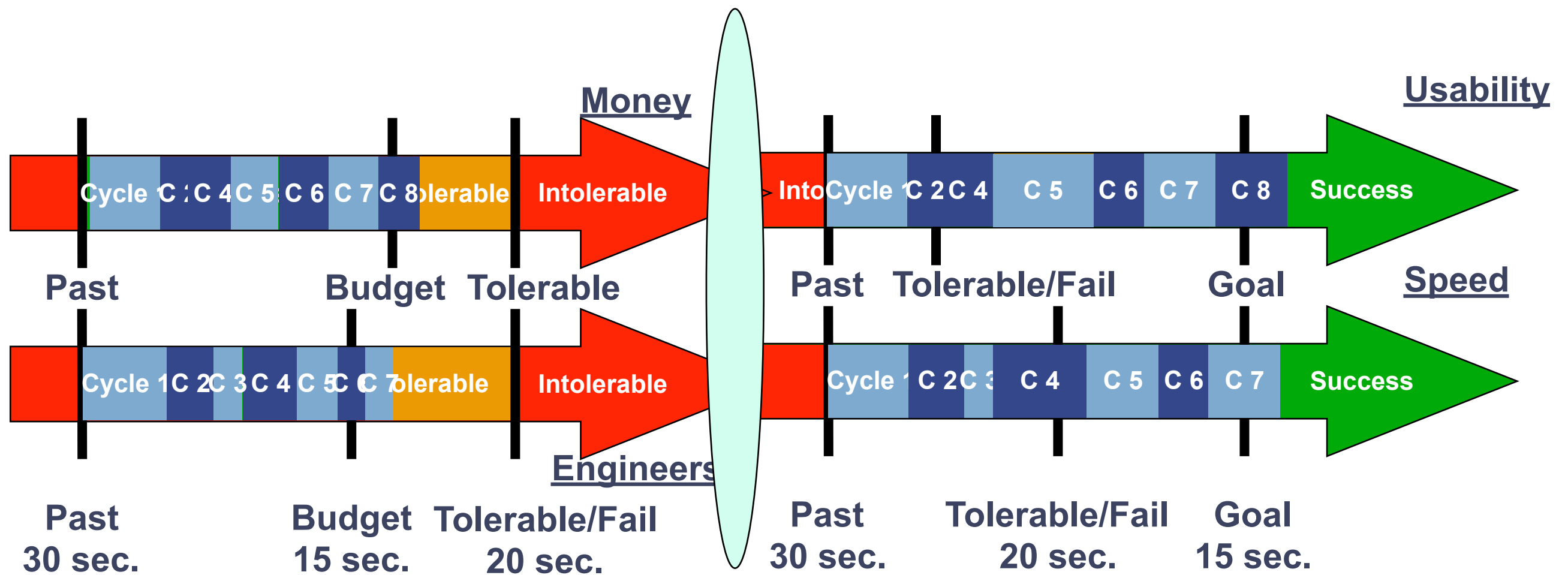
Scale: seconds to do task



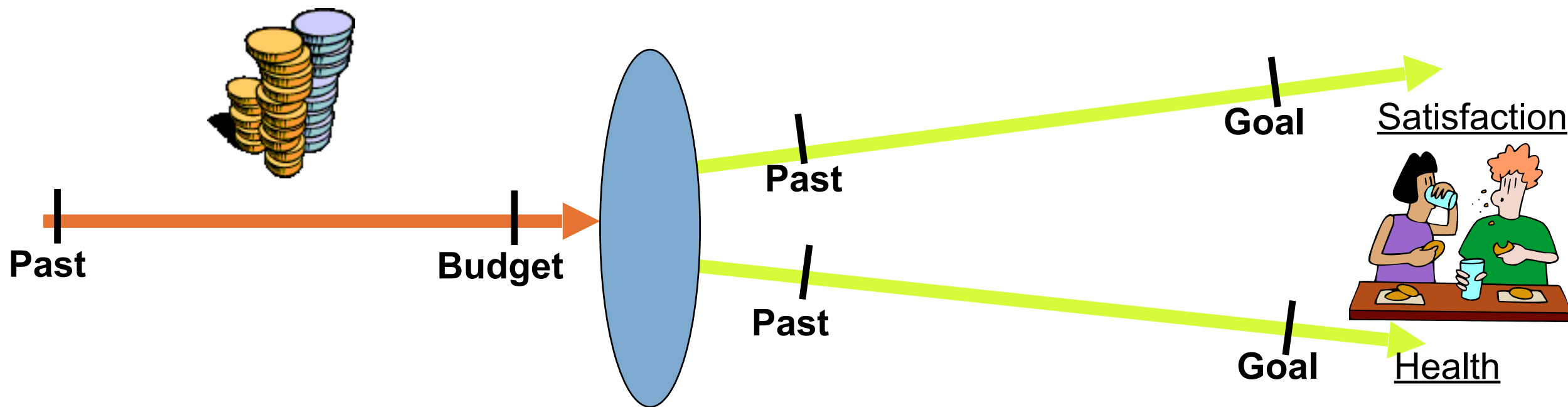
Evolutionary Delivery is driven by meeting Stakeholder Value & Product Quality Requirements Simultaneously



Each Evolutionary Cycle uses a constrained budget of Development Resources



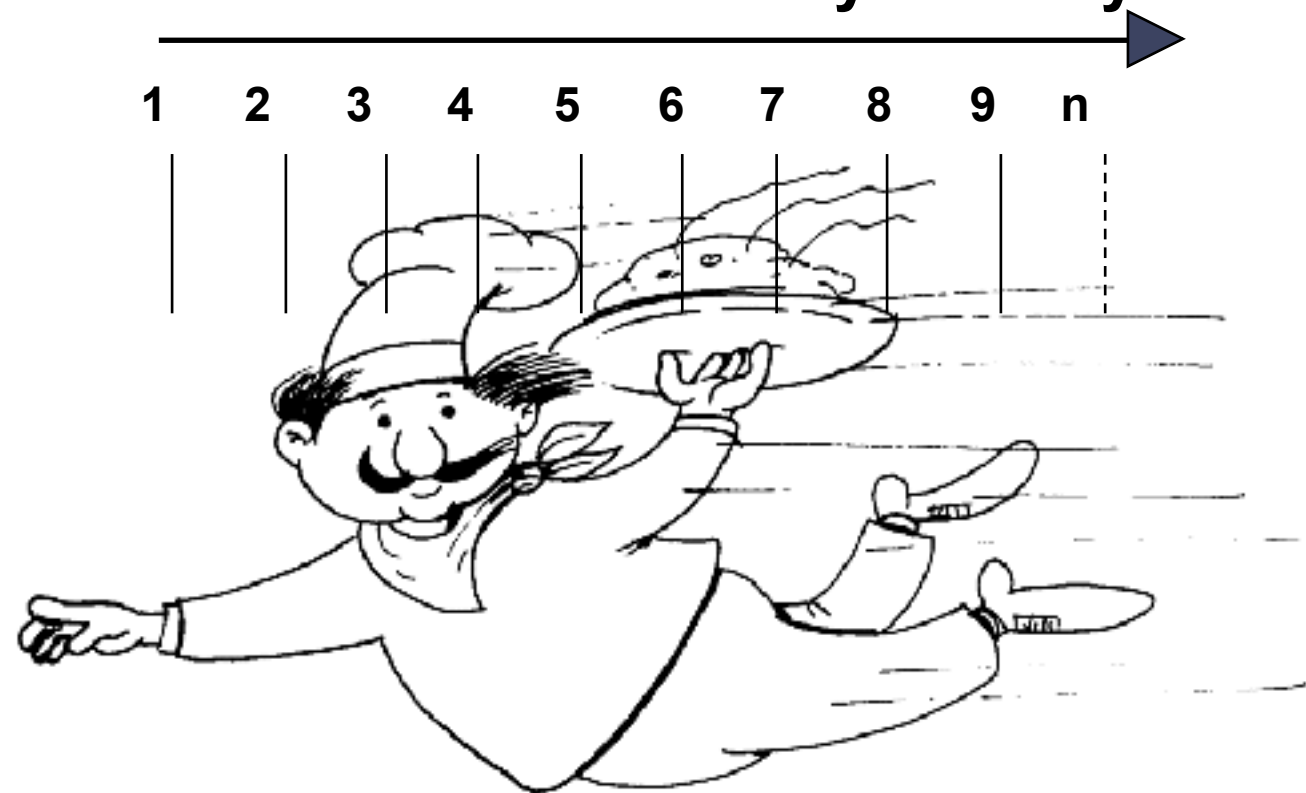
Costs / Effects



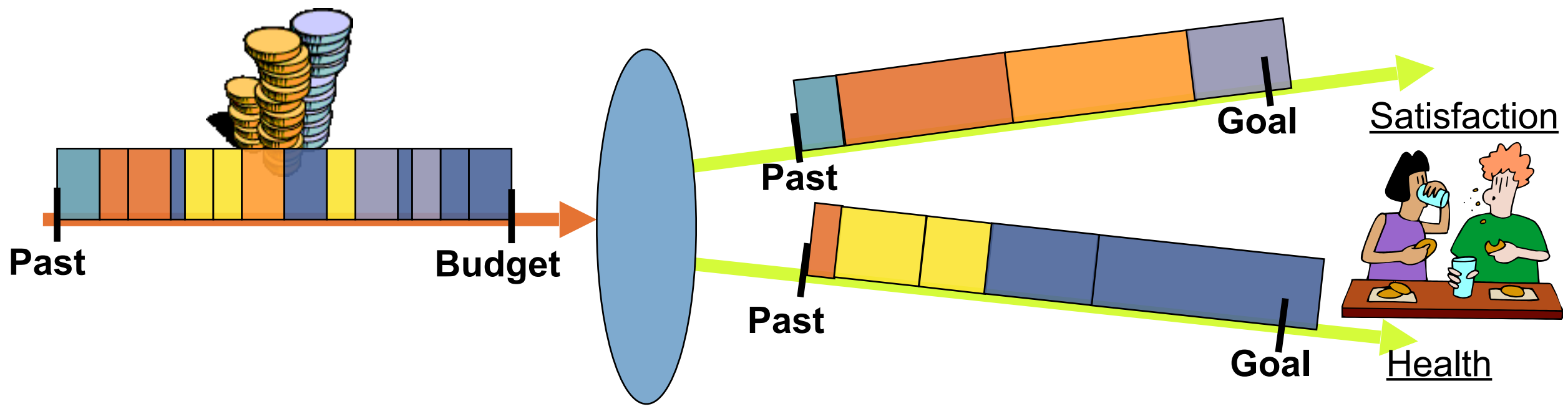
Back-room Design Development



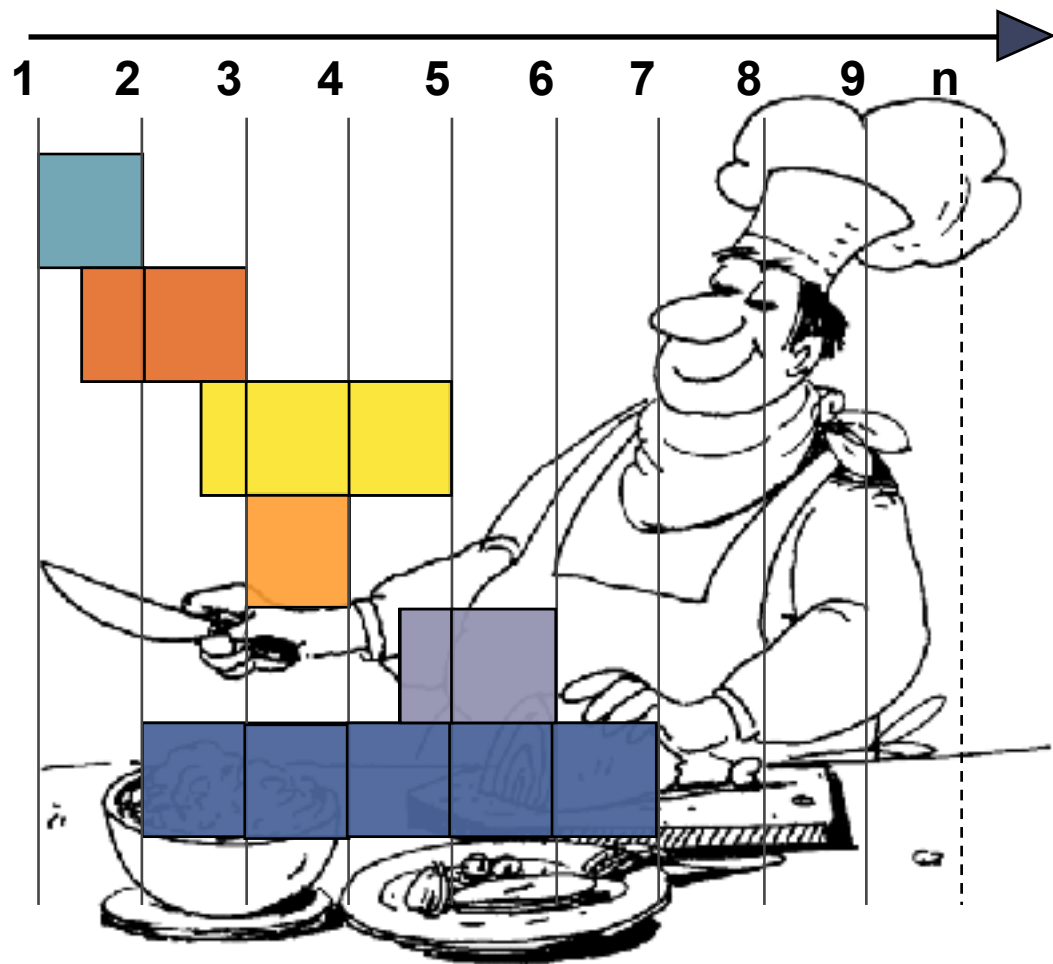
Front-room Evolutionary Delivery



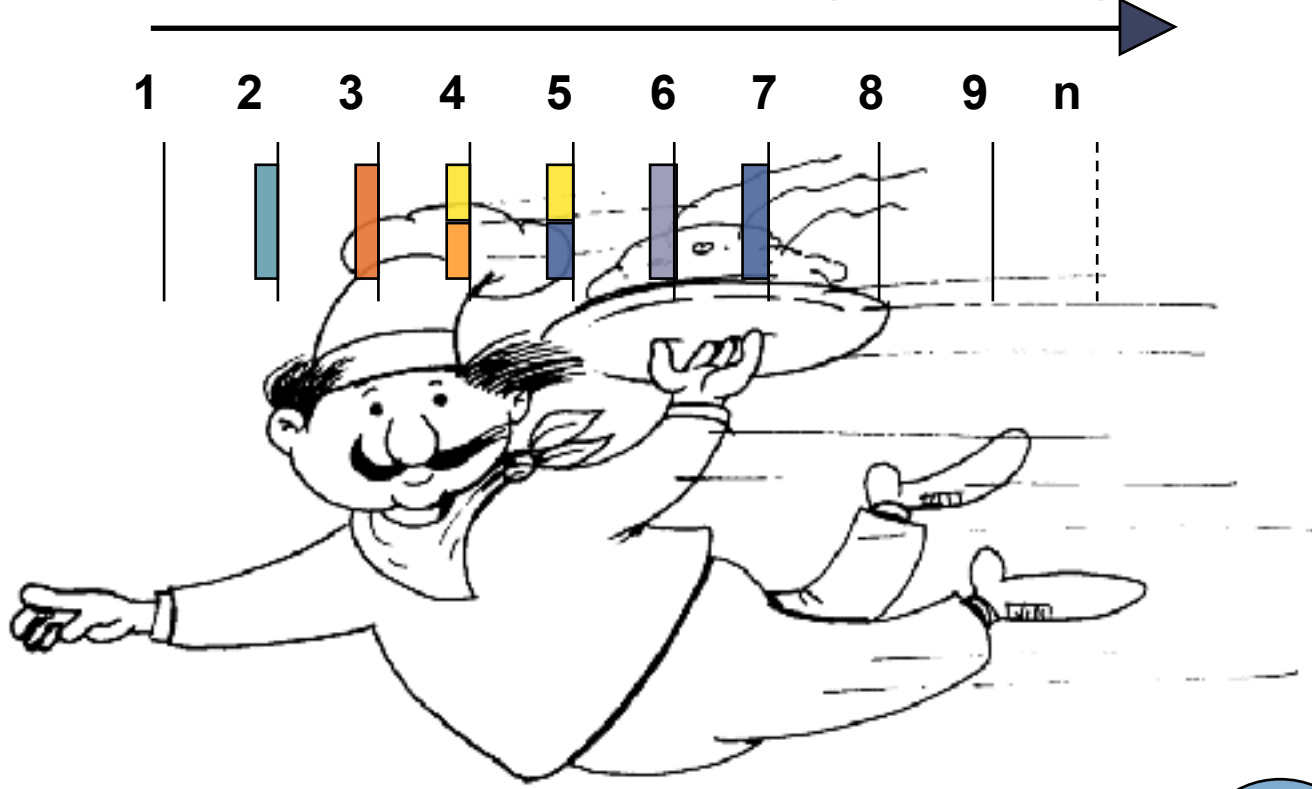
Costs / Effects



Back-room Design Development



Front-room Evolutionary Delivery



5. A method for dynamic prioritisation of delivery steps based on value for resources wrt risks.

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

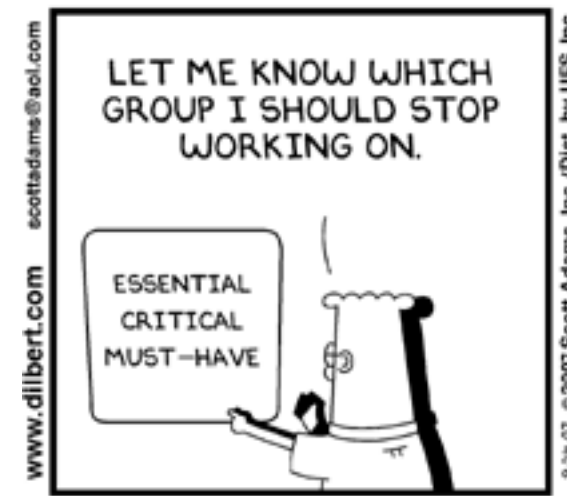
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This presentation will present these tools and participants will get a free digital copy of the book "Value Planning"



It is obviously **first** priority to survive, to not die or disappear.

Then it is **second** priority to avoid discomfort and suffering.

Then it is **third** priority to reach a level of satisfaction.

It is **fourth** priority to go beyond satisfaction, to some luxury level.

So, we can, in Planguage, state these levels *directly*:

- **Tolerable**: survival, borderline, threatened with death constantly
- **OK**: absence of pain and discomfort, but much improvement desired
- **Goal**: quite satisfied, successful, only marginally useful desire to improve this
- **Stretch**: a level better than Goal, but which has *some* marginal value, for *some* stakeholders and instances, *if* the price is right

The highest priority for human survival is:

- Water
- Air
- Food



Figure 6.2 A. What is your instinctive answer?

The point is that *priority is dynamic*: it changes depending on satisfaction of needs

Priority Signals	Current Status	Improvements		Survey Engine .NET		
	Units	Units	%	Past	Tolerable	Goal
				Backwards.Compatibility (%)		
	83,0	48,0	80,0	40	85	95
	0,0	67,0	100,0	57	0	0
				Generate.Wl.Time (small/medium/large seconds)		
	4,0	59,0	100,0	53	8	4
	10,0	397,0	100,0	407	100	10
	94,0	2290,0	103,9	2384	500	180
				Testability (%)		
	10,0	10,0	13,3	0	100	100
				Usability.Speed (seconds/user rating 1-10)		
	774,0	507,0	51,7	881	600	300
	5,0	3,0	60,0	2	5	7
				Runtime.ResourceUsage.Memory		
	0,0	0,0	0,0		?	?
				Runtime.ResourceUsage.CPU		
	3,0	35,0	97,2	38	3	2
				Runtime.ResourceUsage.MemoryLeak		
	0,0	800,0	100,0	300	0	0
				Runtime.Concurrency (number of users)		
	1350,0	1100,0	146,7	150	500	1000
				Development resources		
	64,0			0		84

Figure 6.7 . Incremental Value Tracking at Confinmit.

status after 9 of 12 weeks to release
 Priority signals after real value delivery: Red = WORRY

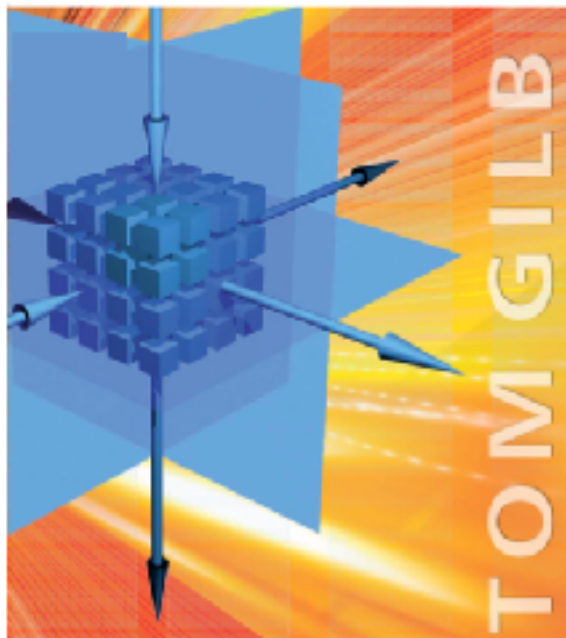
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Value Planning



Practical Tools for Clearer Management Communication

The One-Page 'Value Planning' Book.

Why? I believe your time is valuable. I believe that if someone is an expert or master of a subject, they can write it down in one page or less. So, to potentially save you the time, of reading the rest of the book, I'll try to do a 1-page version right here and now. If you need more detail later, you know where to find it.

Sound Bite

Deliver Real Stakeholder Value Now

The One Sentence Summary.

Value Planning (VP) means you will elicit and clarify critical stakeholder values quantitatively, and prioritize delivering those values, as soon as possible.

The One Paragraph Summary.

1. **STAKEHOLDERS:** Identify your most critical stakeholders.
2. **OBJECTIVES:** Identify the smart levels of their most critical value improvements.
3. **STRATEGIES:** Identify potential strategies for delivering planned value levels to stakeholders, at lowest cost and risk.
4. **SMALL STEPS:** Decompose strategies into suitably smaller deliverable increments.
5. **DELIVER VALUE:** Attempt to deliver measurable value to some stakeholders.
6. **LEARN:** Measure results and costs; then decide if you are on track, or need to change something. *Continue the process until all goals reached.*

The Rest-of-the-Page Summary.

1. We will make use of our Planning Language, called 'Planguage' ('PL').
2. The central capability of Planguage is that it can be used for *any system* of 'product' or 'service', at any level of abstraction or detail.
3. Planguage is capable of expressing *all results, improvements, values and qualities quantitatively*.
4. Planguage can help you plan, estimate and track delivery of *all costs* and resources.
5. Planguage will help you keep numeric accounts of *multiple critical values*, and corresponding *multiple critical resources*, so you can manage value for money; i.e. the *efficiency* of planning, decision-making and contracted result deliveries.
6. Planguage is extremely *risk* conscious at the level of every aspect of planning that might involve risk to your successful value delivery.
7. Planguage not only helps with planning values and costs, but is consequently used to manage practical *implementation*, learning and *feedback* from plan application.
8. Planguage will help you *align* and connect plans at many *related levels* of consideration, from top management to the most detailed level of planning you need.
9. Planguage enables you to *measure the quality of planning*, and to set a release threshold for plans.
10. Planguage has tools to *automate* plan specification, and to integrate your updated decisions and knowledge.

Technical Detail and Real Examples:

My TEDx Talk <http://tinyurl.com/GilbTedx>, "All Qualities Can Be Quantified". 18 minutes.

Competitive Engineering is a revolutionary project management method, proven by organizations worldwide

Competitive Engineering documents Tom Gilb's unique, ground-breaking approach to communicating management objectives and systems engineering requirements, clearly and unambiguously.

Competitive Engineering is a revelation for anyone involved in management and risk control. Already used by thousands of managers and systems engineers around the world, this is a handbook for initiating, controlling and delivering complex projects on time and within budget. Competitive Engineering copes explicitly with the rapidly changing environment that is a reality for most of us today.

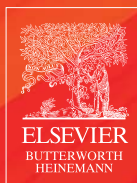
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- A complete, proven and meaningful 'end-to-end' process for specifying, evaluating, managing and delivering high quality
- Rich in detail and comprehensive in scope, with thought provoking ideas on every page

COMPETITIVE ENGINEERING ENCOMPASSES

- Requirements specification
- Design engineering (including design specification and evaluation)
- Evolutionary project management
- Project metrics
- Risk management
- Priority management
- Specification quality control
- Change control



Visit <http://books.elsevier.com/companions> to access the complete Planguage glossary

<http://books.elsevier.com>

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ERIK SIMMONS,
INTEL CORPORATION, REQUIREMENTS

ENGINEER AT THE AEROSPACE
CORPORATION AND CHAIR OF THE INCOSE
SYSTEMS ARCHITECTURE WORKING GROUP



Tom Gilb is an independent consultant and author of numerous books, articles and papers. He is recognised as one of the leading 'thinkers' within the IT community and has worked with managers and engineers around the world in developing and applying his renowned methods.

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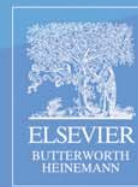
9 780750 665070

Author photo: Bart van Overbeek
Photography: <http://www.bvof.nl>

COMPETITIVE ENGINEERING

BOOK FOR SYSTEMS ENGINEERING,
REQUIREMENTS ENGINEERING, AND
SOFTWARE ENGINEERING USING PLANGUAGE

GILB



COMPETITIVE ENGINEERING

A HANDBOOK FOR SYSTEMS ENGINEERING, REQUIREMENTS
ENGINEERING, AND SOFTWARE ENGINEERING USING PLANGUAGE

TOM GILB

a free link to my new book 'Value Planning' for this lecture participants

- Value Planning book:

Here is a digital draft of my **Value Planning (Part 1)** book as of June 2017: The Short Book (63 pages)

https://www.dropbox.com/sh/ptf6ecsv1hr3nhz/AAC0epZ4Qqn290_m-dIB0Vw-a?dl=0

(let me know if this link fails at any time!)

FEEDBACK APPRECIATED

- **COMPETITIVE ENGINEERING** book (free for signup)

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

- Link to Full **Value Planning book**: <https://www.gilb.com/store/2W2zCX6z>

- ALMOST FREE full 770 Page Value Planning Text

- Coupon Code: FIRE

- gives €9 discount on €10 price = €1

FEEDBACK APPRECIATED

- **THE NEW SHORT BOOK 'DELTA VALUE PLANNING'**

Δ : Value Planning Basics (for CxO Level Managers).
a 23 Page book. (half illustrations)

<https://www.dropbox.com/s/sd5ovezk0nb3q72/%E2%88%86%20Value%20Planning%20%20CxO%20Word%20MASTER%20%20Book%20Ms.pdf?dl=0>

This is an experiment in making a 10 page text version. I am not sure what to do with it. But enjoy and share for the moment. Give me feedback if you can.

FEEDBACK APPRECIATED

www.needsandmeans.com