What are the Dangers of Current Agile Practices, and How Can We Fix Them?

Tom Gilb, www.Gilb.com

Demystifying Agile, Lean and Kanban
9 December 2010, London
Unicom
These slides will be found at
www.gilb.com/downloads slides

Summary

- The most powerful idea in Agile is rapid delivery and feedback
  But we fail to exploit this opportunity to really be Agile

  Agile has techie focus. Not stakeholder value focus. Not enough “people & change” focus! It’s easy, common sense – but not trivial! This guarantees failure.

So, what are Agile methods missing?

- Stakeholder Focus
  - Real projects have dozens of stakeholders
    - Not just a customer in the next room
    - Not just a user with a use case or story
- Results Focus
  - It is not about writing code, it is about delivering value to stakeholders
  - It is not about programming, it is about making **systems** work, for real people
- Systems Focus
  - It is not about coding – (*again* ☺)
  - It is about reuse, data, hardware, training, motivation, sub-contracting, Outsourcing, help lines, user documentation, user interfaces, security, etc.
  - So, a systems engineering scope is necessary to deliver *results*.
  - Systems Engineering needs **quantified** performance and quality objectives
    - To synchronize all necessary disciplines, so that they deliver the results.

Scrum and Evo

- "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 (recommending us to be invited to Scrum Gathering, Orlando in March 2010, which we did)
  - .http://bit.ly/a5Fd1T #scrum #agile Sutherland credits Gilb in Roots of Scrum slide #accu2010

Gilb credited as Root

First Attempt to Teach a Scrum Front End Using Evo ideas

- A 1-day front-end for 'Product Managers' before a 1-day Scrum Overview course for Product Managers
- Commissioned by and co-authored by Gabriella Benefield (Scrum Alliance) 2009
- Detailed training exercises available at
  - http://www.gilb.com/tiki-download_file.php?fileId=353
  - Value Planning slides for Scrum (Oct 09)
- The following dozen slides are Tom's attempt to describe the relationship of
  - Scrum and the Value Planning front end
  - based on Evo
  - These slides were not part of the training G. B. and I held in 2009)

(+ Scrum)

A better 'front end' to Scrum, and other agile variants

BASED ON IDEAS FROM THE 'EVO' METHOD

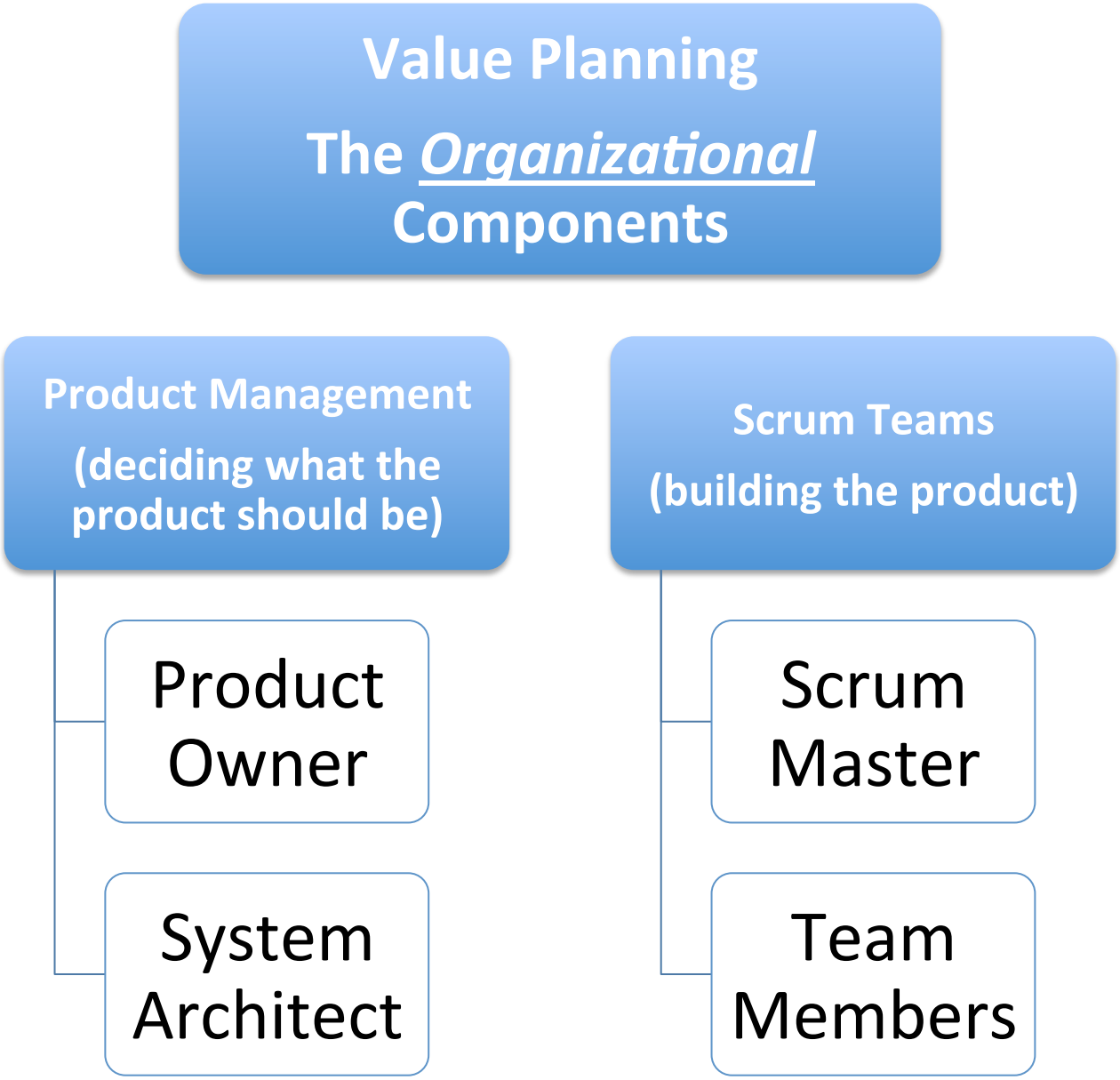
Efficient Value Organisation/Options

Evolving Value in Organizations

Evolving Value Optimization ,

Efficient Value Optimization

= EVO


Value Planning
The Organizational Components
Product Management
(deciding what the product should be)
Product Owner
System Architect
Scrum Teams
(building the product)
Scrum Master
Team Members

Value Planning
The *Inputs*

Product Management
(deciding what the product should be)

- **Stakeholders and their Needs**
  (like: Potential New Users, Usability)
- **Long Term Quality Needs**
  (like Portability, Security, Adaptability)

Scrum Teams
(building the product)

- **Requirements**
  (what to build, how well to build)
- **High Level and Super-ordinate Designs and Architecture**
  (how to build, solutions given from others)

Value Planning

The Work Products - *outputs*

Product Management
(deciding what the product should be)

Product Owner:

Requirements, particularly top critical few improvement requirements

Strategies, Designs, Solutions

(How we propose to deliver the improvements)

System Architect:

Technical Architecture to support long term

(like suppliers, interfaces, platforms, languages)

Scrum Teams
(building the product)

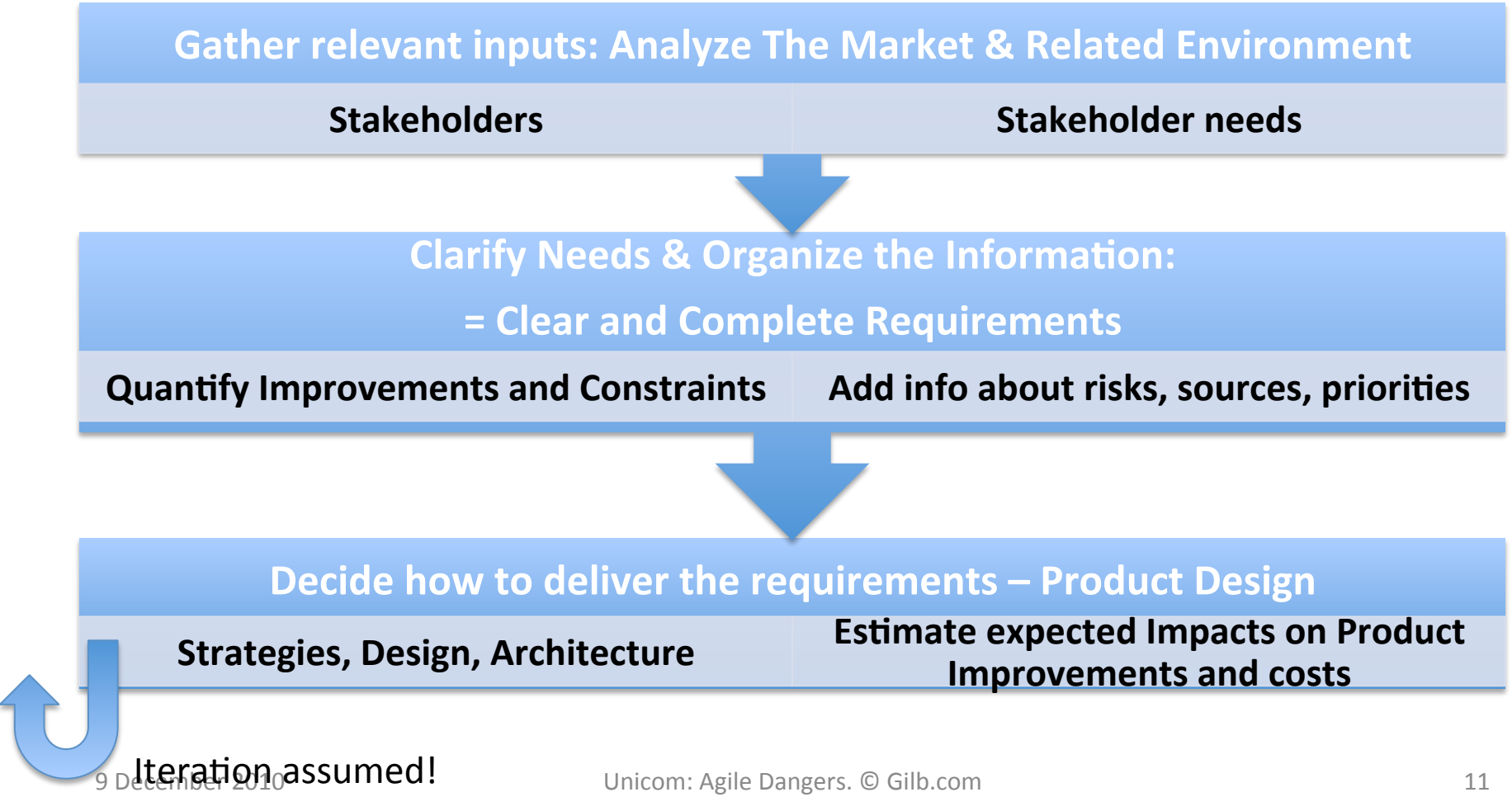
Scrum Master:

ensure team empowerment

Team Members: (IT)

Code, Tests, System Improvements, Reports on progress, Work Process Improvements

The *Product Management Process*
Deciding the exact product content



Analysis: by PM
What You 'have to' know

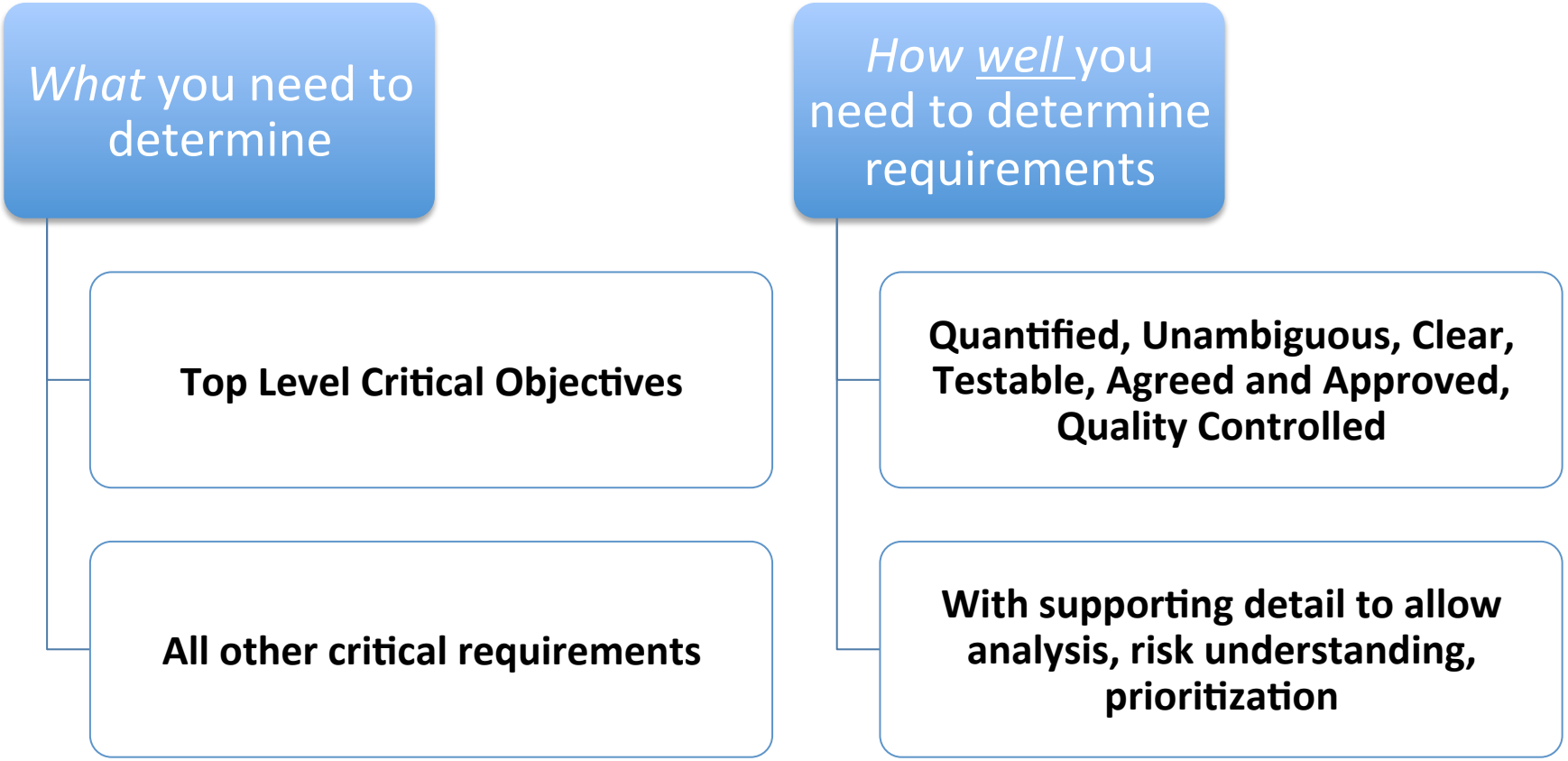
Market Needs

- **Product Characteristics**
  - **How good? Qualities**
  - **Top 10 Critical Improvements**
- **Service Characteristics**
  - **(help, training, fault support, sales channels, …)**

Other Needs

- **Organizational Needs**
  - **IT Environment, Sales and marketing Environment, Distribution and Partners, International considerations, …**
- **External Environment Needs**
  - **(legal, co-operation, image, ..)**

Requirements:
Determining What You Want



Design: to meet Requirements:

What you have to design

- **Choose specific designs of product and service**
  (detailed enough to hand over to development team**)**
- **Choose specific architectures to deal with long term needs**
  (platforms, interfaces, processes, organizational structures, rewards)

How well you have to design it

- So that **you reasonably understand all critical** attributes and costs
  (±20%?)
- **So that the overall long term implications of the product are understood**
  (recruitment, partnering, international deals)

Building:
The *development* team

What do you have to do?

Build Product

(Software, Dataware, Docuware)

Validate Product

(Does it work well enough?)

How *well* do you have to do it

To meet all targets, and constraints – for quality and performance.

For new increments, and total system

To reflect on both product attributes and process problems.

To improve their own work environment.

To improve the design, estimates and requirements.

Implementation: Integration: Delivery to Market

Value-Driven Scrum

(one of your options for smart Product Ownership)

- **Defined As:**
  - **The real world interface to the Scrum Product Owner**
  - **The Businesses 'Organizational Value' Management**
  - **The Business Function Management**
  - **The Technical Architecture Management**
- **All in a pipeline to the Scrum Product Owner (PO)**
  - **Fully designed, from the *organizational* point of view**
  - **Allowing additional design at the level of *programming*, chunking, and data**
    - **By the Scrum Team**
  - **Prioritized from the *Organizational* Point of View**

The ‘Scrum Product Owner’

- Needs to get enough information about the product
  - To allow the Scrum team to build, test, make technical detailed decisions
- Here is one set of tools to allow the Product Owner
  - Perhaps, in larger environments, a PO ‘team’
  - To collect information, to plan, so that
    - **We really deliver the best value for money, as soon as possible**

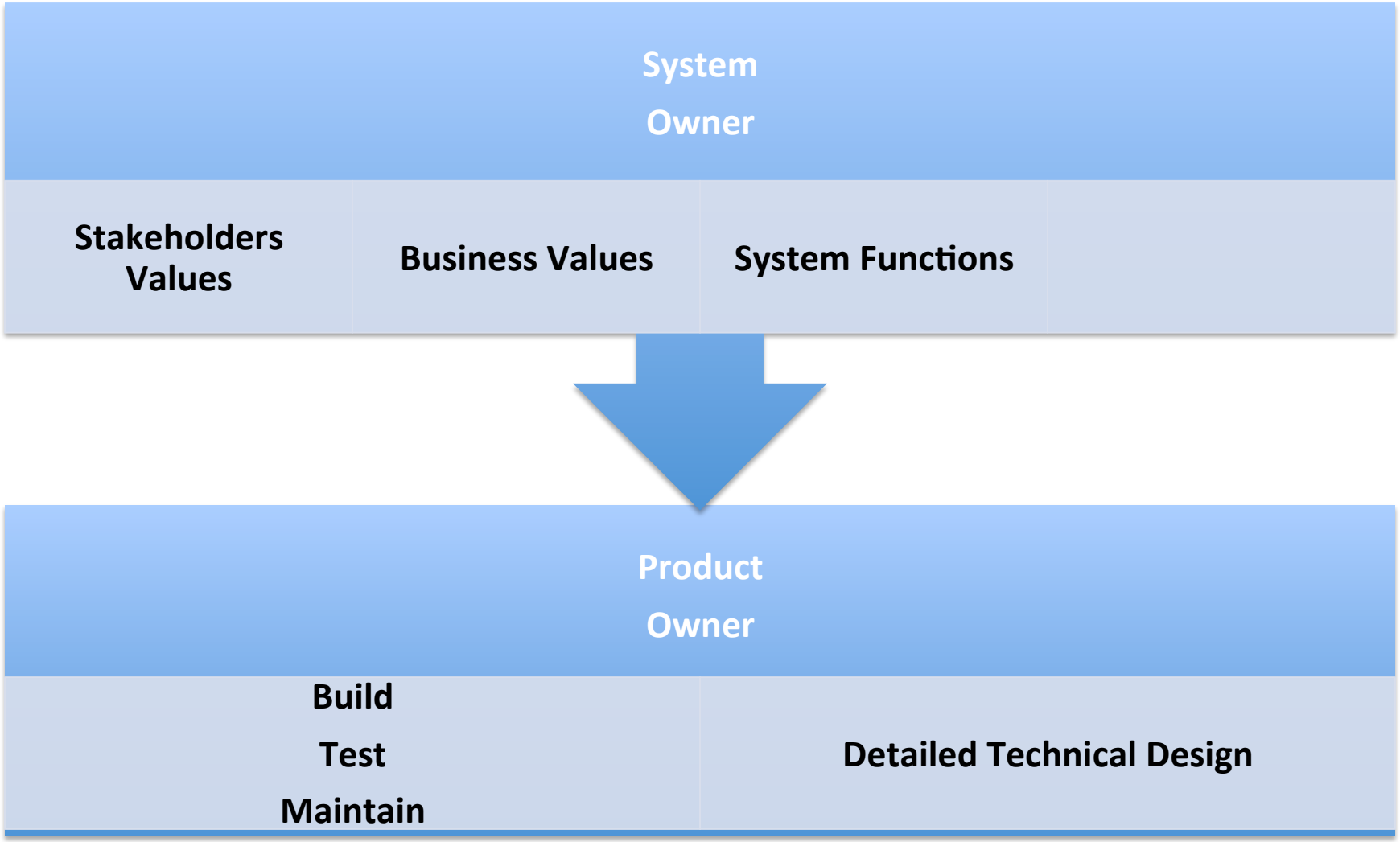
What is new?
What is Value-Planning (VP) ?

- **Dominant focus on Value Delivery Management** –
  - Not from a programming point of view
  - But from a business and management non technical point of view
  - Which critical value improvements do we need first, and next
- Stakeholder Values-and-Priorities Integration*
  - Of management, marketing, IT, Systems Engineering,
  - Including Sales, Customer Service and ALL Critical Stakeholders
- **Systems View** – Systems Architecture – Systems Engineering

- * integration: defined as: Alignment and reasonable balance of competing interests, through intelligent dynamic prioritization.

See ppt note for depth papers on priority, including:
http://www.gilb.com/tiki-download_file.php?fileId=60

Value Driven Scrum



Value Decision Tables

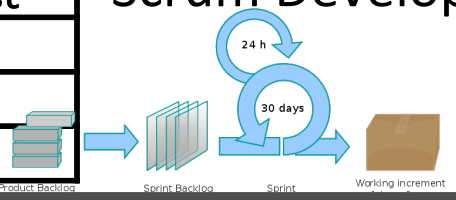
Business Goals	Stakeholder Value 1	Stakeholder Value 2
Business Value 1	-10%	40%
Business Value 2	50%	10%
Resources	20%	10%

Stakeholder Val.	Product Value 1	Product Value 2
Stakeholder Value 1	-10%	50 %
Stakeholder Value 2	10 %	10%
Resources	2 %	5 %

Product Values	Solution 1	Solution 2
Product Value 1	-10%	40%
Product Value 2	50%	80 %
Resources	1 %	2 %

Prioritized List
1. Solution 2
2. Solution 9
3. Solution 7

Scrum Develops



We measure improvements
Learn and Repeat

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Value Decision Tables

Business Goals	Training Costs	User Productivity
Profit	-10%	40%
Market Share	50%	10%
Resources	20%	10%

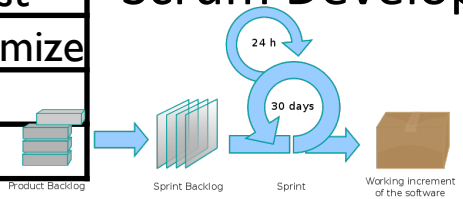
Stakeholder Val.	Intuitiveness	Performance
Training Costs	-10%	50 %
User Productivity	10 %	10%
Resources	2 %	5 %

Product Values	GUI Style Rex	Code Optimize
Intuitiveness	-10%	40%
Performance	50%	80 %
Resources	1 %	2 %

Jeffsutherland Twitter: Very cool product backlog management by Tom and Kai Gilb http://ad.vu/2h4d *Sat 28 March 2009*

Prioritized List
1. Code Optimize
2. Solution 9
3. Solution 7

Scrum Develops



We measure improvements Learn and Repeat

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- **Value Management (Evo)**

  Focus towards challenges

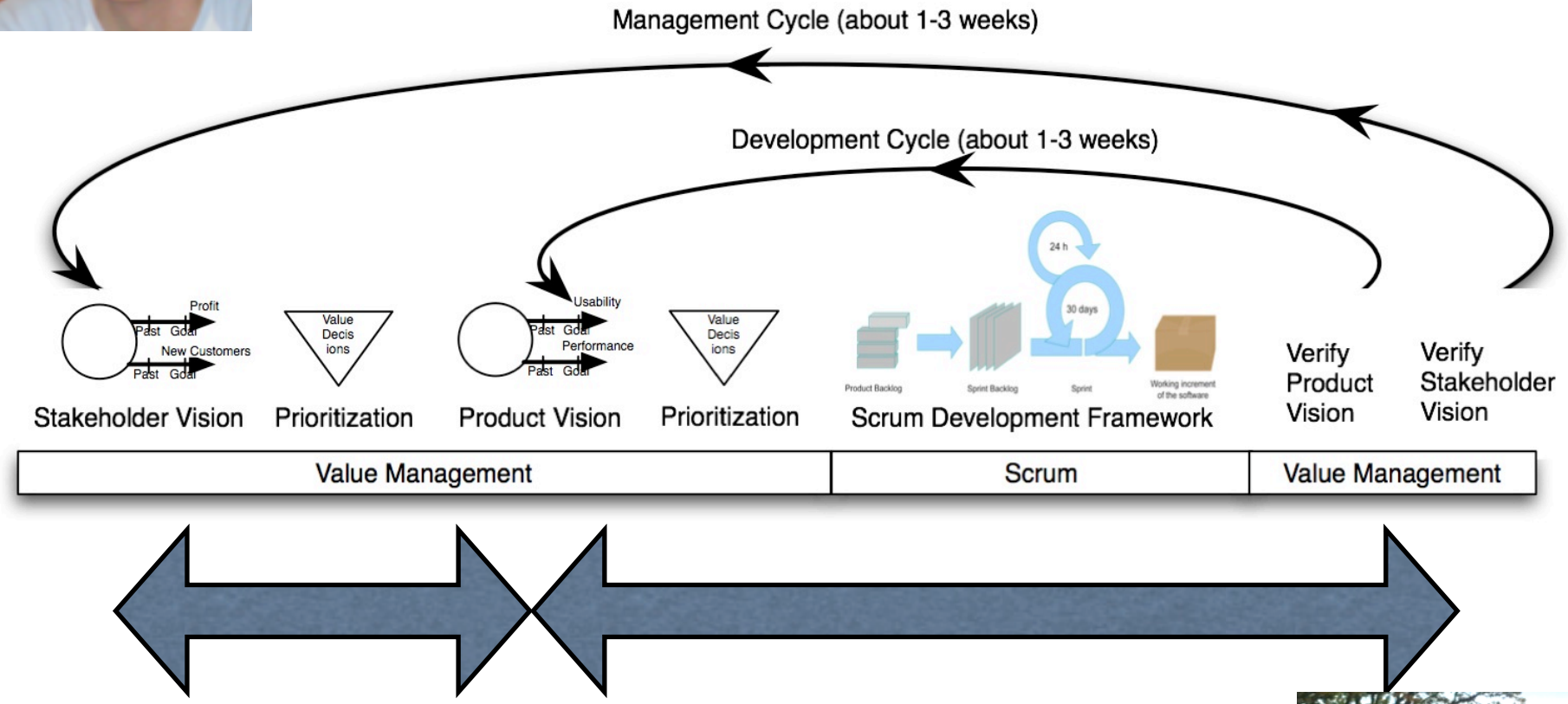
  Stakeholder requirements quantified

  Both Goal and Tolerable levels specified.

  Table shows relationship requirements and design

  Testing during and after deliver cycles

  A more-advanced and more-comprehensive way to apply Scrum



[Jeffsutherland Twitter: Very cool product backlog management by Tom and Kai Gilb http://ad.vu/2h4d](#) *Sat 28 March 2009*

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Gilb's Ten Key Agile Principles

to avoid bureaucracy and give creative freedom

1. **Control projects by quantified critical-few results. 1 Page total !**

   (not stories, functions, features, use cases, objects, ..)

2. **Make sure those results are business results, not technical**

   Align your project with your financial sponsor's interests!

3. **Give developers freedom, to find out *how* to deliver those results**
4. **Estimate the impacts of your designs, on *your* quantified goals**
5. **Select designs with the best impacts in relation to their costs, do them first.**
6. **Decompose the workflow, into weekly (or 2% of budget) time boxes**
7. **Change designs, based on quantified experience of implementation**
8. **Change requirements, based in quantified experience, new inputs**
9. **Involve the stakeholders, every week, in setting quantified goals**
10. **Involve the stakeholders, every week, in *actually using* increments**

http://www.gilb.com/tiki-download_file.php?fileId=431
Agile Principles in AgileRecord.com, no. 3, 2010

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Gilb's Agile Principles

to avoid bureaucracy and give creative freedom (1 sentence summary)

Main Idea:

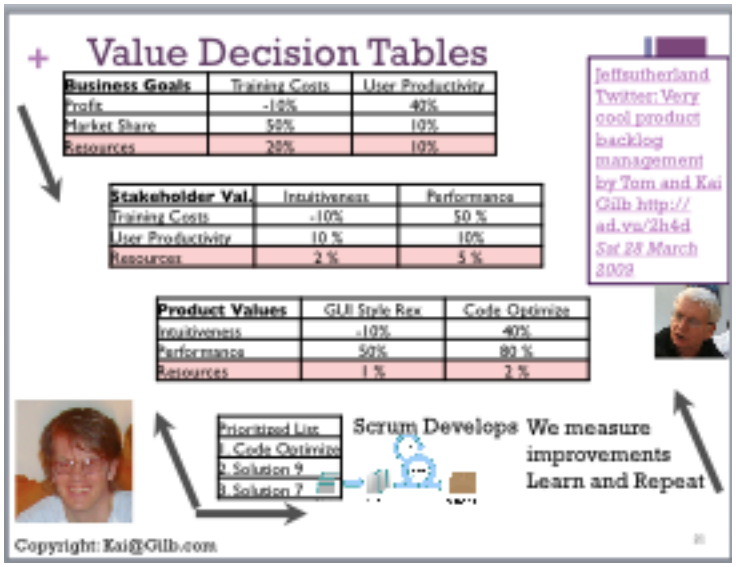
Get early, and frequent, real, stakeholder net-value - delivered

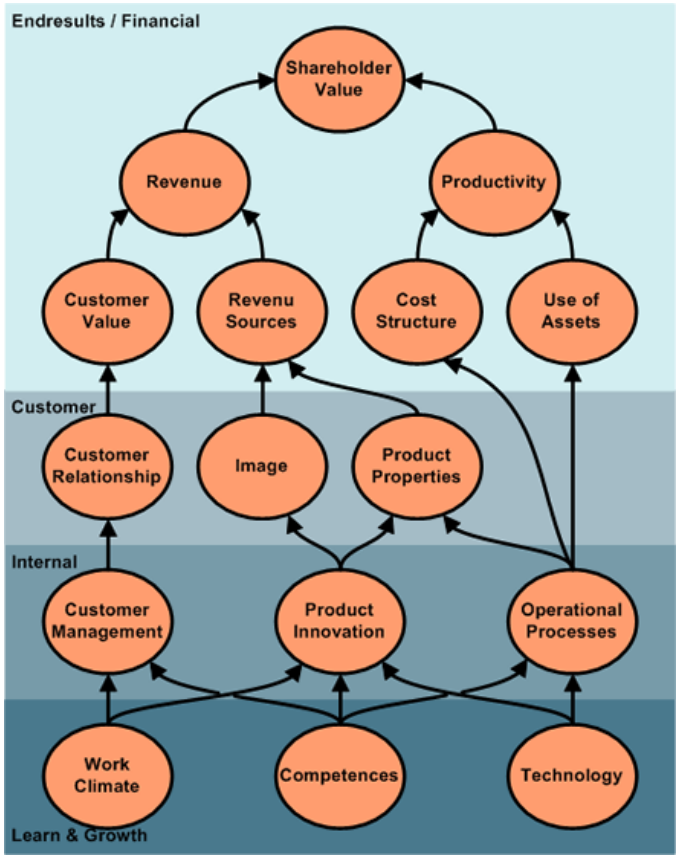
	VALUE TO CREATE	VALUE TO PRESERVE	VALUE TO SACRIFICE
EMPLOYEES			
CUSTOMERS			
SUPPLIERS AND PROFESSIONAL ADVISERS			
INVESTORS			
TRADES UNIONS			
GOVERNMENT			
MEDIA			
COMMUNITY			
OTHER STAKEHOLDER GROUPS			

Deliver Value !

1. Control projects by quantified critical-few results. 1 Page total !

(not stories, functions, features, use cases, objects, ..)





NOT LIKE THIS! Project Objectives 'Unquantified few'

Real Example of ***Lack*** of Scales

- **Defined** Scales of Measure:
  - Demands ***comparative*** **thinking**.
  - Leads to requirements that are unambiguously **clear**
  - Helps Team be **Aligned** with the Business

*1. Central to The Corporations business strategy is to be the world's **premier** integrated_<domain> service **provider**.*

*2. Will provide a much more efficient **user** experience*

*3. Dramatically scale back the **time** frequently needed after the last data is acquired to time align, depth correct, splice, merge, recompute and/or do whatever else is needed to **generate** the desired **products***

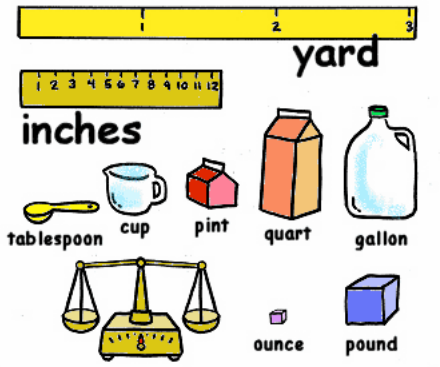
*4. Make the system much **easier** to **understand** and **use** than has been the case for previous system.*

*5. A primary goal is to provide a much more **productive** system **development** environment than was previously the case.*

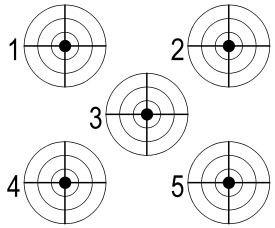
*6. Will provide a richer set of functionality for **supporting** next-generation logging **tools** and applications.*

*7. **Robustness** is an essential system requirement (see rewrite in example below)*

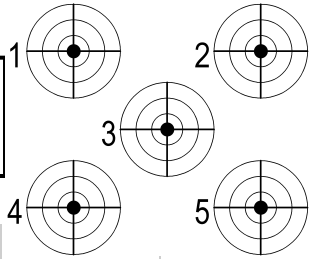
*8. Major improvements in **data quality** over current practices*



This lack of clarity cost them $100,000, 000



More like this! (Real case).

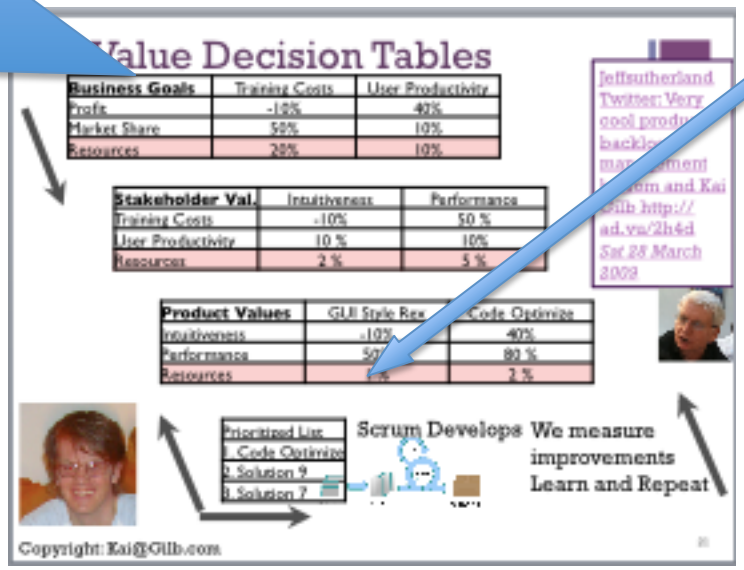


Business objective	Measure	Goal (200X)	Stretch goal ('0X)	Volume	Value	Profit	Cash
Time to market	Normal project time from GT to GT5	<9 mo.	<6 mo.	X		X	X
Mid-range	Min BoM for The Corp phone	<$90	<$30	X		X	X
Platformisation Technology	# of Technology 66 Lic. shipping > 3M/yr	4	6	X		X	X
Interface	Interface units	>11M	>13M	X		X	X
Operator preference	Top-3 operators issue RFQ spec The Corp	1	2	X		X	X
Productivity							
Get Torden	Lyn goes for Technology 66 in Sep-04	Yes		X		X	X
Fragmentation	Share of components modified	<10%	<5%		X	X	X
Commoditisation	Switching cost for a UI to another System	>1yr	>2yrs		X	X	X
Duplication	The Corp share of 'in scope' code in best-selling device	>90%	>95%		X	X	X
Competitiveness	Major feature comparison with MX	Same	Better	X		X	X
User experience	Key use cases superior vs. competition	5	10	X	X	X	X
Downstream cost saving	Project ROI for Licensees	>33%	>66%	X	X	X	X
Platformisation IFace	Number of shipping Lic.	33	55	X		X	X
Japan	Share of of XXXX sales	>50%	>60%	X		X	X
	Numbers are intentionally changed from real ones						

<- Business Objectives Quantified

2. Make sure those results are <u>business</u> results, not technical

Align your project with your financial sponsor's interests!



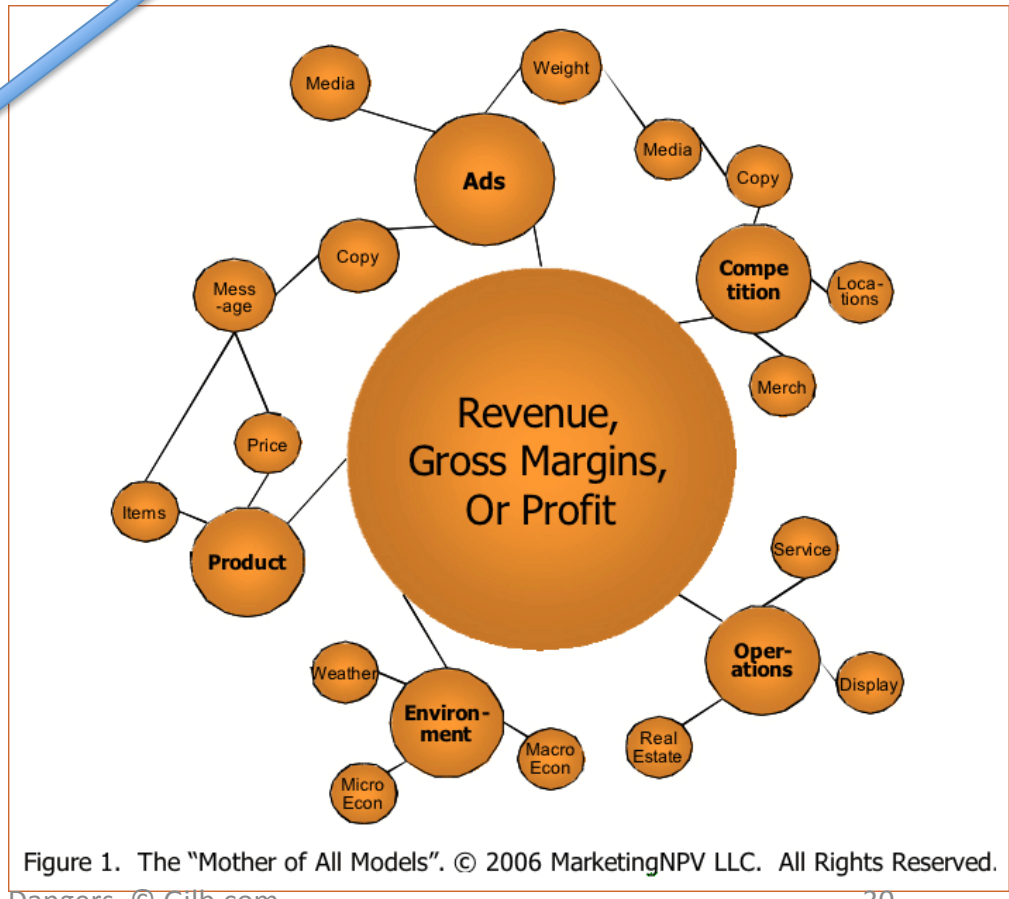
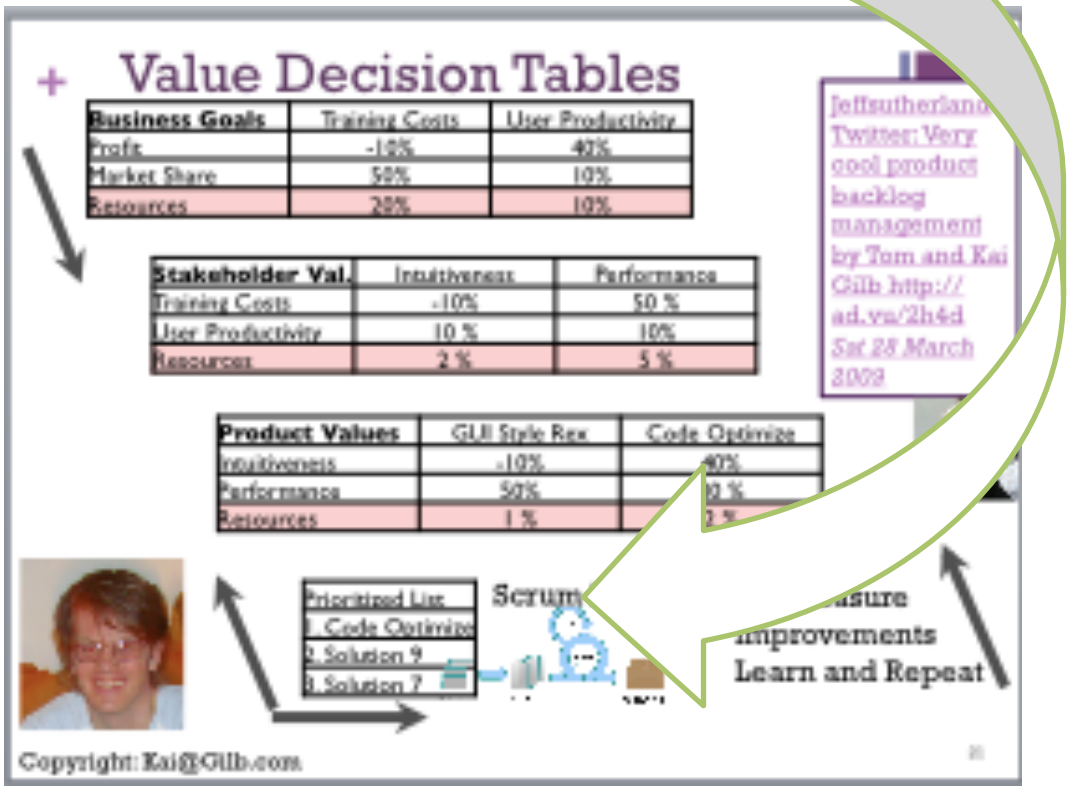


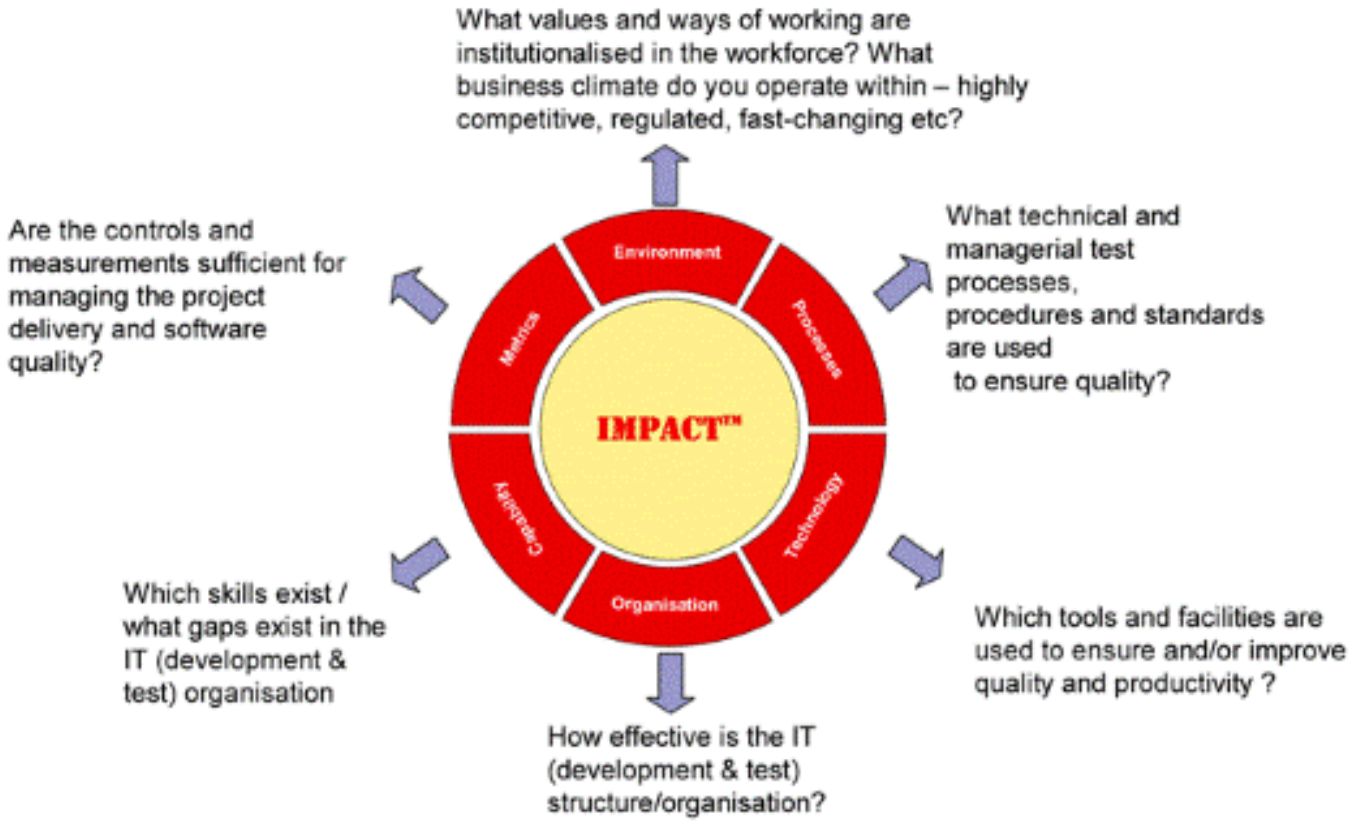
Figure 1. The "Mother of All Models". © 2006 MarketingNPV LLC. All Rights Reserved.

3. Give developers freedom,

to find out *how* to deliver those results



4. Estimate the impacts of your designs, on *your* quantified goals



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ord Kelvin)

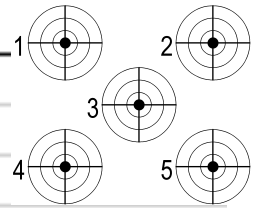
Strategy Impact Estimation:
for a $100,000,000 Organizational Improvement Investment

Objectives

Technical Strategies

Viking Deliverables

Business Objective	hardware adaptation	Telephony	Reference designs	IFace	Modularity	Defend vs Technology 66	Tools	User Experience	GUI & Graphics	Security	Defend vs OCD	Enterprise
Time to market	20%	10%	30%	5%	10%	5%	15%	0%	0%	0%	5%	5%
Mid-range	15%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]%	5%	10%	5%	5%	0%	0%
Platformisation Technology	25%	10%	30%	0%	[illegible]	10%	0%	5%	0%	10%	0%	5%
Interface	5%	15%	15%	0%	5%	0%	5%	0%	0%	10%	0%	10%
Operator preference	0%	[illegible]	[illegible]	[illegible]	[illegible]	20%	5%	10%	10%	20%	5%	10%
Get Torden	25%	10%	10%	-10%	0%	20%	0%	10%	-20%	10%	10%	5%
Commoditisation	20%	10%	20%	10%	-20%	25%	15%	0%	0%	5%	10%	5%
Duplication	15%	0%	10%	0%	0%	40%	0%	0%	0%	5%	20%	5%
Competitiveness	10%	15%	20%	0%	10%	20%	10%	10%	20%	10%	10%	10%
User experience	5%	[illegible]	0%	0%	[illegible]	[illegible]%	0%	30%	10%	0%	0%	0%
Downstream cost saving	15%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]%	[illegible]%	10%	0%	0%	10%	5%
Platformisation IFace	10%	10%	20%	[illegible]	0%	20%	5%	[illegible]%	[illegible]%	0%	0%	5%
Japan	10%	5%	20%	[illegible]	[illegible]	[illegible]%	[illegible]%	[illegible]%	[illegible]%	[illegible]%	[illegible]%	0%
Contribution to overall result	15%	9%	17%	4%	[illegible]	[illegible]%	[illegible]%	[illegible]%	[illegible]%	[illegible]%	[illegible]%	5%
Cost (£M)	£ 2.85	£ 0.49	£ 3.21	£ 2.54	£ 1.92	£ 2.31	£ 0.81	£ 1.21	£ 2.68	£ 0.79	£ 0.62	£ 0.60
ROI Index (100=average)	106	358	109	[illegible]	[illegible]	[illegible]	148	107	10	152	202	174



"Benefits"

Strategy Impacts on Objectives

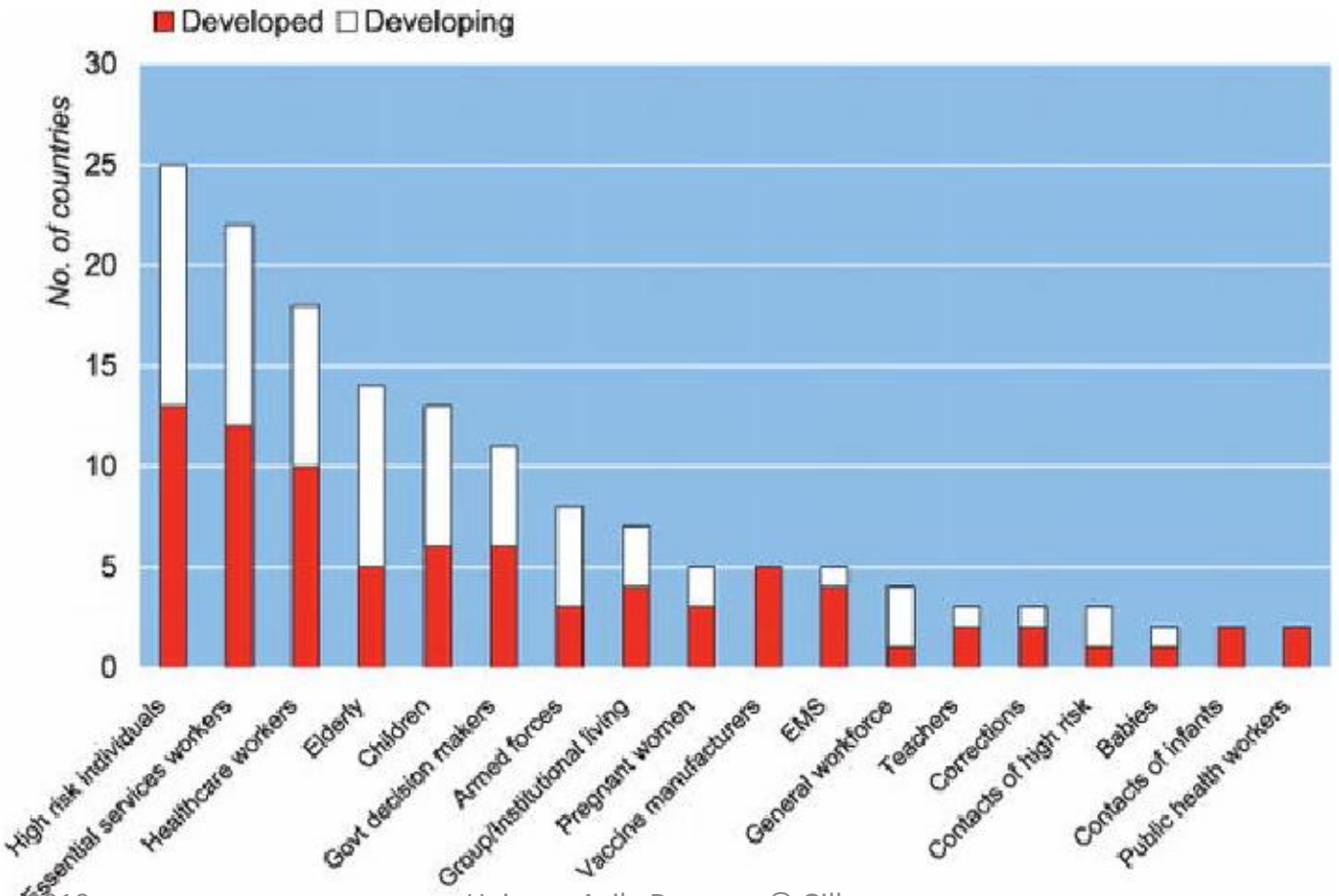
Cost

Benefit/Cost ratio

358 !

5. Select designs with the best impacts in relation to their costs, do them first.

Figure 1: Vaccine Priority Groups by Development Status - Listed in at Least Two National Plans



Source: Uscher-Pines et al. Priority setting for pandemic influenza: An analysis of national preparedness

6. Decompose the workflow, into weekly (or 2% of budget) time boxes

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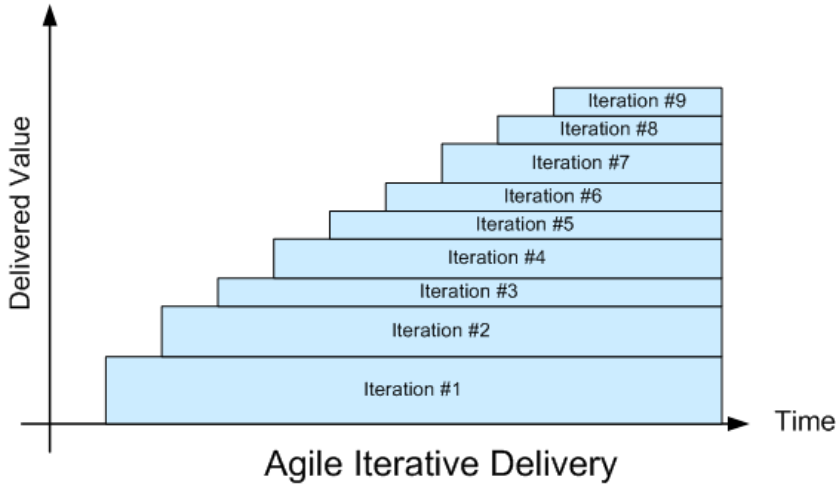
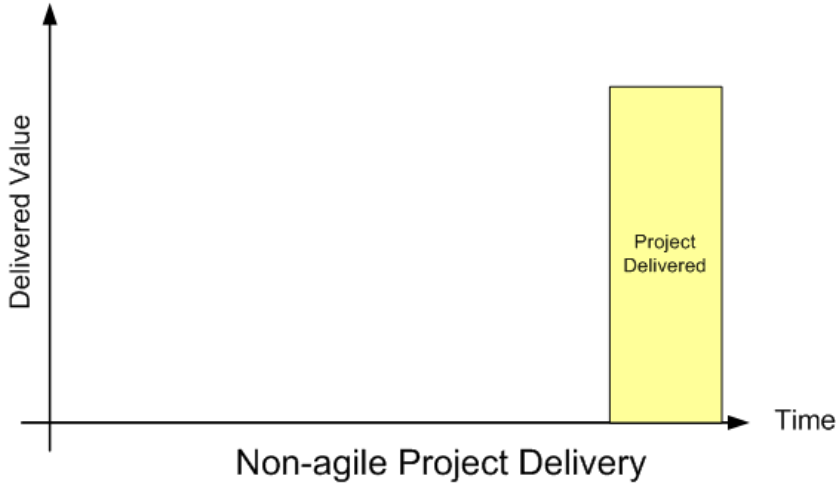


Decomposition of Projects: How to Design Small Incremental Steps INCOSE 2008

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



7. Change designs, based on quantified experience of implementation

-

Design is the servant of the requirement. If it does not work 'fire' it.

8. Change requirements, based on quantified experience, new inputs: intelligent tradeoff.

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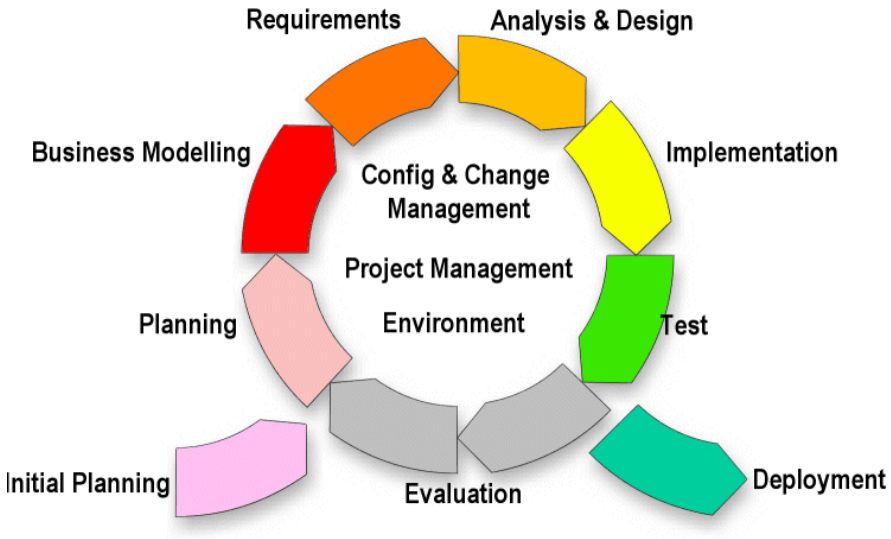
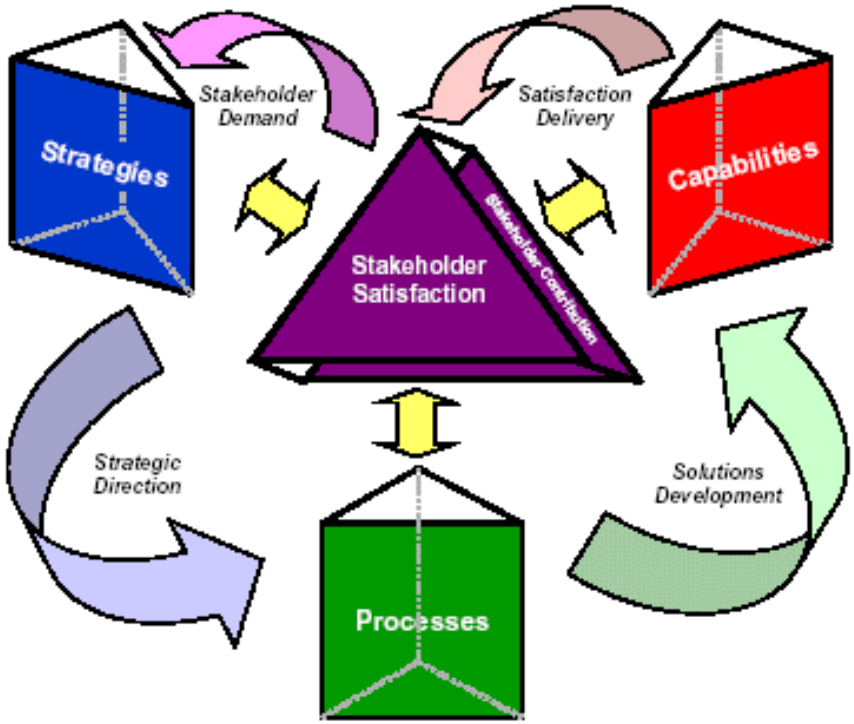


Reduce the level or delivery time, of lower-priority requirements, in order to deliver high priority requirements on time, within budget, or at Goal levels.

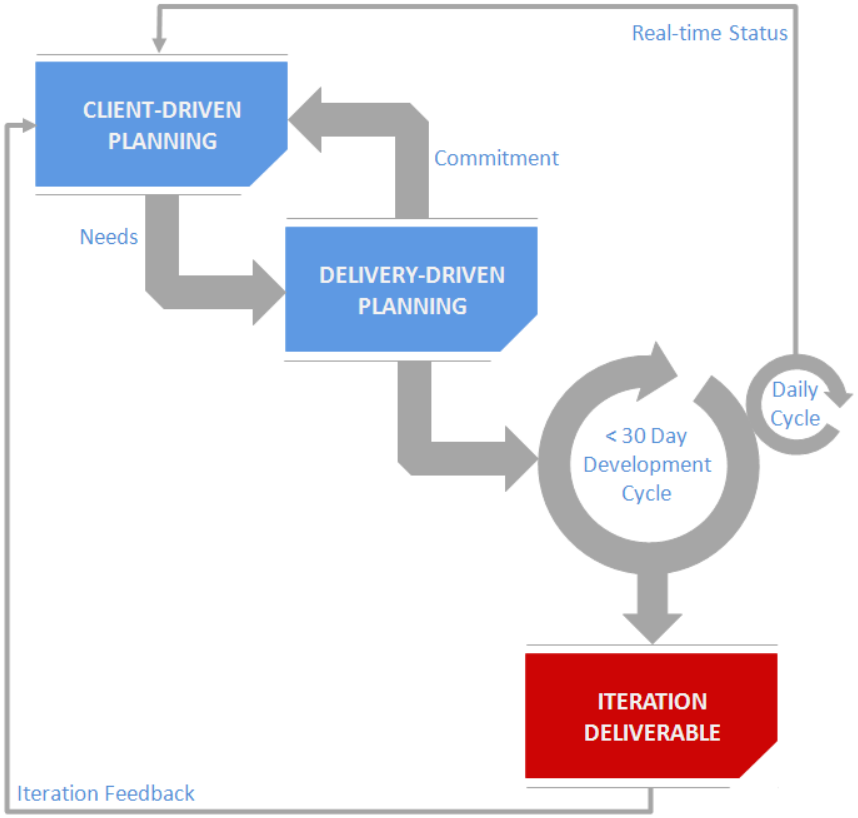
9. Involve the stakeholders, every week, in setting quantified goals

It is much easier to determine requirements with a little hindsight!

The eternal cycle of stakeholder priorities



10. Involve the stakeholders, every week, in actually using increments



My 10 Agile Values?

- **Simplicity**
  - **1. Focus on real stakeholder values**
- **Communication**
  - **2. Communicate stakeholder values quantitatively**
  - **3. Estimate expected results and costs for weekly step**
- **Feedback**
  - **4. Generate results, weekly, for stakeholders, in their environment**
  - **5. Measure all critical aspects of the improved results cycle.**
  - **6. Analyze deviation from your initial estimates**
- **Courage**
  - **7. Change plans to reflect weekly learning**
  - **8. Immediately implement valued stakeholder needs, next week**
    - ***Don't wait, don't study (analysis paralysis), don't make excuses.***
    - ***Just Do It!***
  - **9. Tell stakeholders exactly what you will deliver next week**
  - **10. Use any design, strategy, method, process that works quantitatively well - to get your results**
    - **Be a systems engineer, not a just programmer (a 'Softcrafter').**
    - **Do not be limited by your craft background, in serving your paymasters**

http://www.gilb.com/tiki-download_file.php?fileId=448
Agile Values in AgileRecord.com, no. 4, 2010

Copyright 2004-8 Gilb, may be used citing source

Create value for stakeholders


John H. Patterson-Founder

We believe that all of our shareholders and other **stakeholders** are best served by **...** We will not jeopardize the important **values** we are creating at **NCR** and **...**

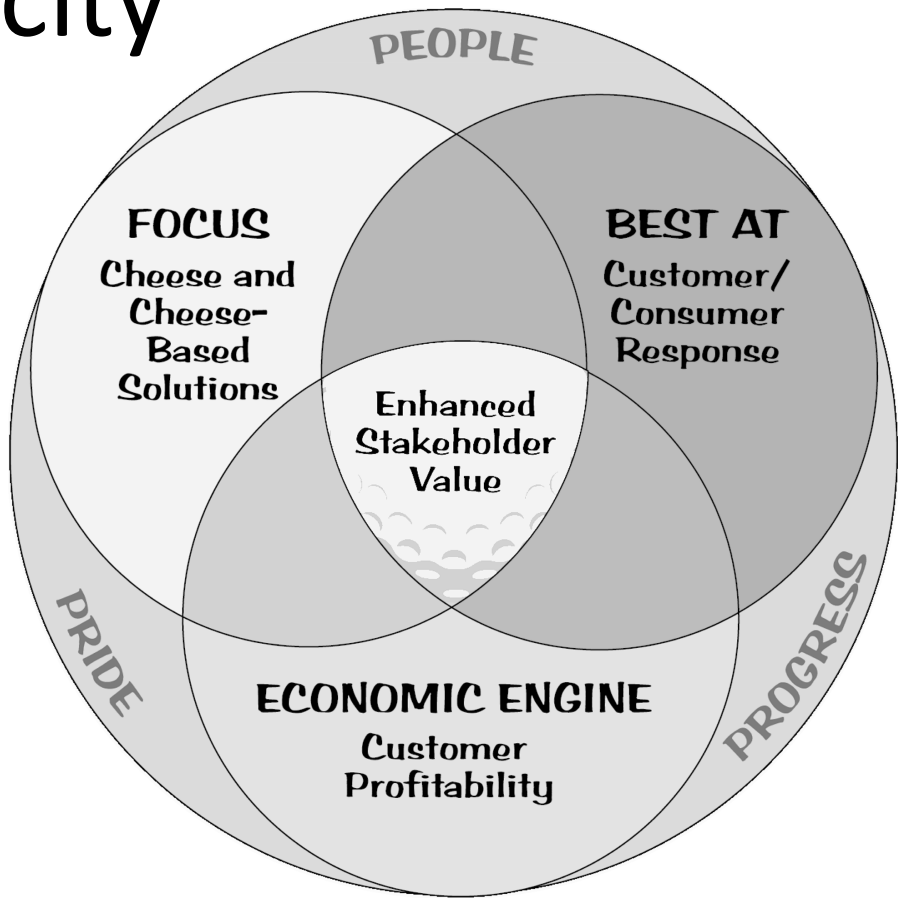
- **Stakeholders** are all constituencies with a stake in the fortunes of the company. **NCR's** primary mission is to **create value** for our **stakeholders..**
  - www.**value**basedmanagement.net/articles_mctaggart_governing_full.pdf - Similar
- 1987 A company wide program helped make **NCR** people aware of the company's mission to "**create value for stakeholders**". New products included: **...**
  - www.**ncr**.org.uk/page45.html
- In the late-80s, NCR took the initiative to identify its mission as to “create value for stakeholders”. Try as they might, NCR ultimately failed with this mission. The accounting system and accounting culture functioned to deter it from its mission, constantly pulling the company and all management decisions away from stakeholder value and back to stockholder value.
  - http://maaw.info/ArticleSummaries/ArtSumEstes92(2).htm

My 10 Agile *Values*? (Detail)

- **Simplicity**
- **Communication**
- **Feedback**
- **Courage**

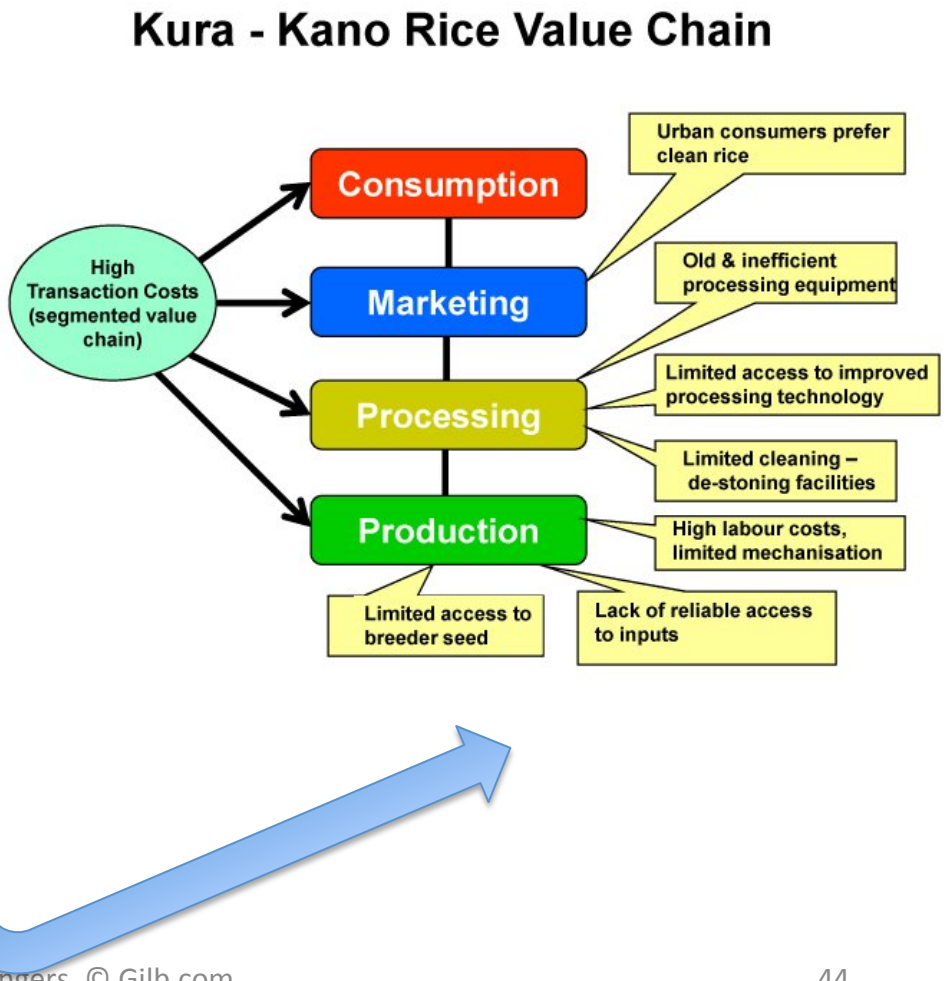
Simplicity

- **1. Focus on real stakeholder values**
-



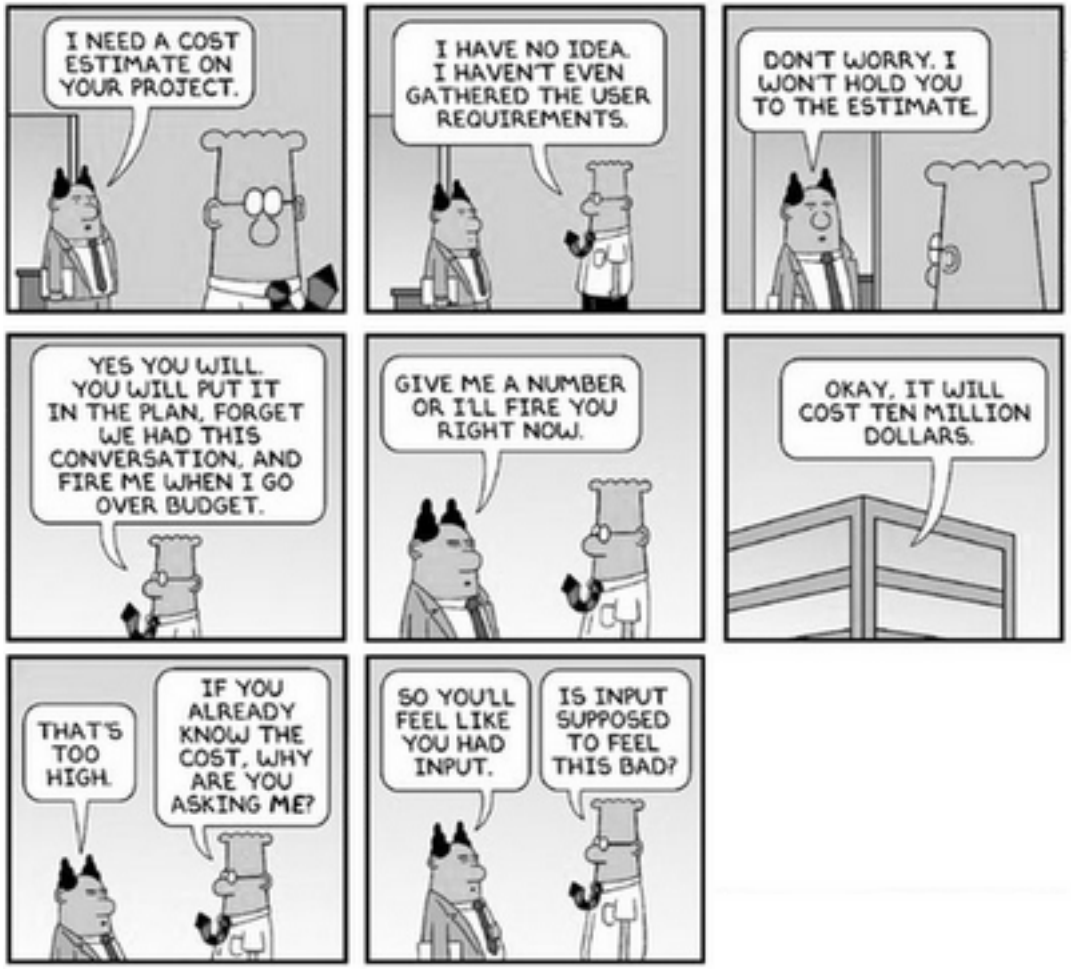
Communication

- 2. Communicate stakeholder values quantitatively.
-



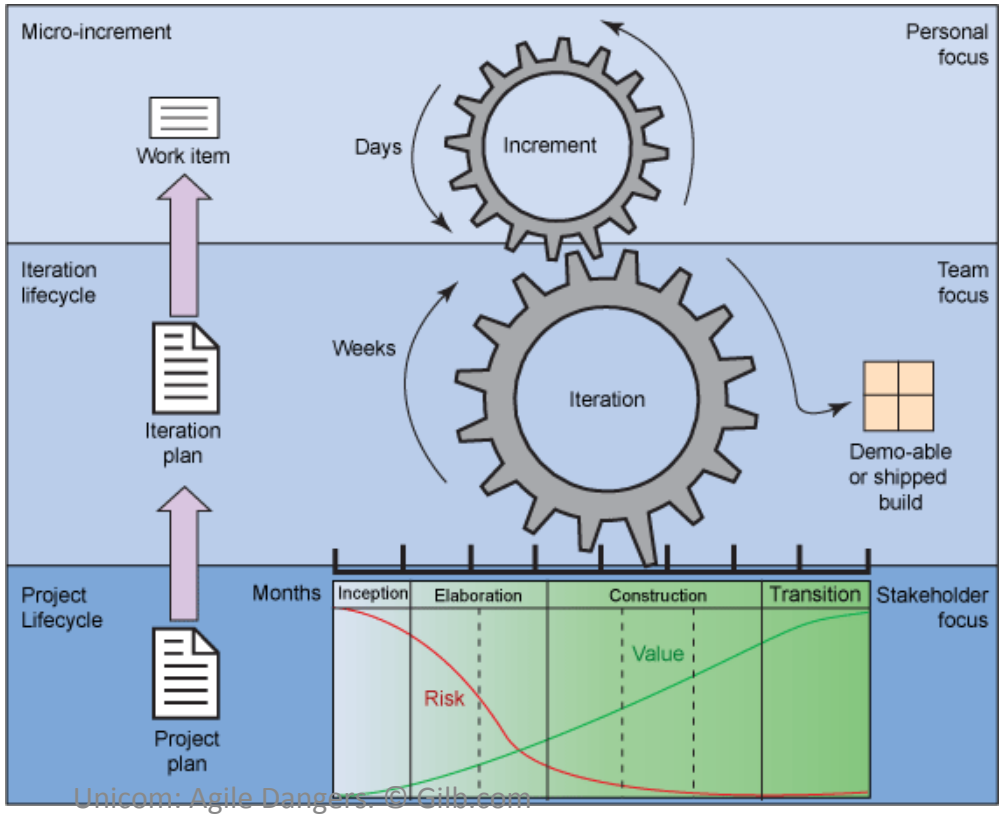
Estimate Often

- **3. Estimate expected results and costs for weekly steps**
-



Feedback

- **4. Generate results, weekly, for stakeholders, in *their* environment**
-

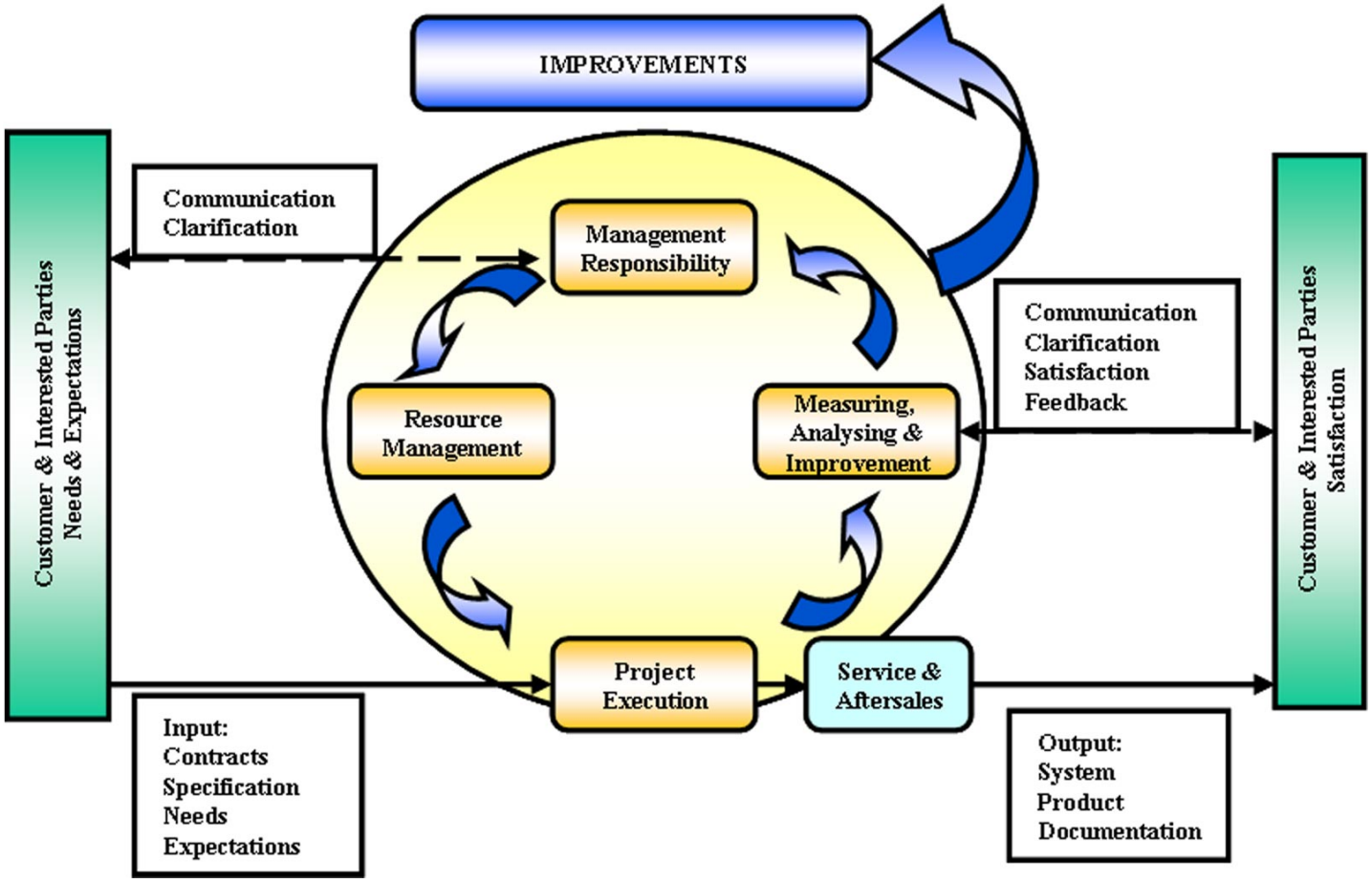


Measure Critical Stuff

- **5. Measure all critical aspects of the improved results cycle.**
-

Learn from Deviations

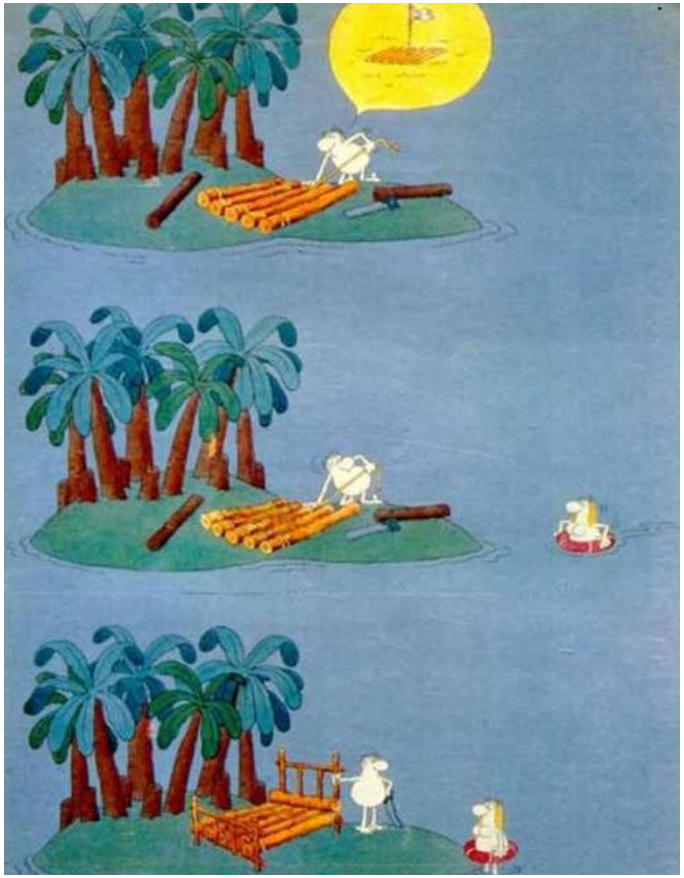
- **6. Analyze deviation from your initial estimates.**
-



Courage

– **7. Change plans to reflect weekly learning.**

–

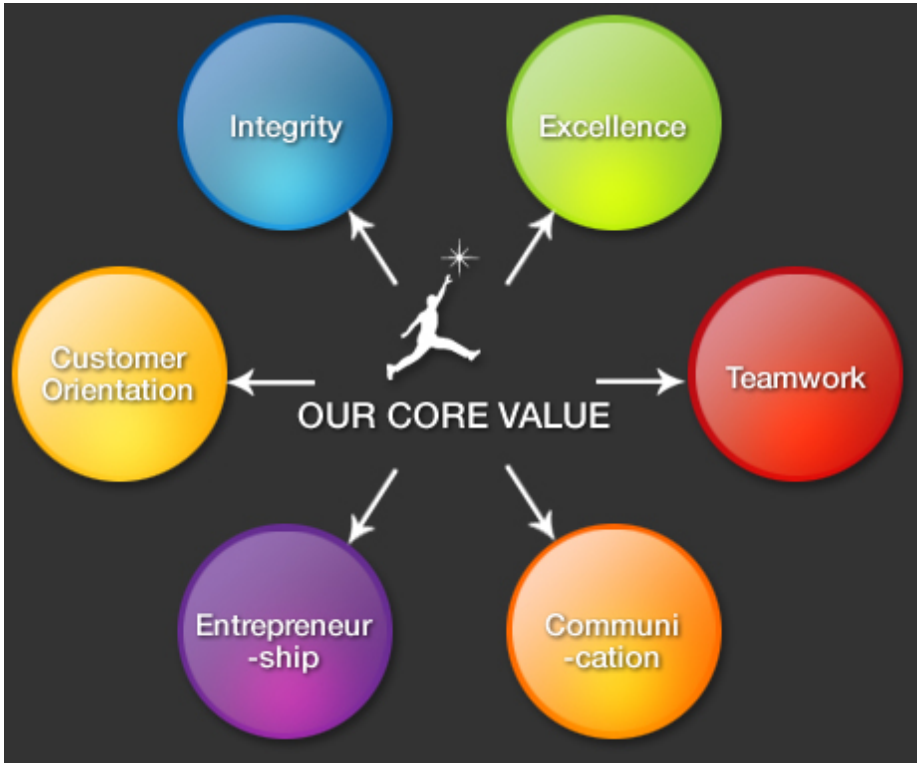


Deliver Value Now

- **8. Immediately implement valued stakeholder needs, next week**
  - ***Don't wait, don't study (analysis paralysis), don't make excuses.***
  - ***Just Do It!***
-

Tell Stakeholders What's next

- **9. Tell stakeholders exactly what you will deliver next week**
-



If it works, do it!

- **10. Use any design, strategy, method, process that works quantitatively well - to get your results**
  - **Be a systems engineer, not a just programmer (a 'Softcrafter').**
  - **Do not be limited by your craft background, in serving your paymasters .**
-

So, what are Agile methods missing?

- **Stakeholder Focus**
  - **Real projects have dozens of stakeholders**
    - **Not just a customer in the next room**
    - **Not just a user with a use case or story**
- **Results Focus**
  - **It is not about writing code, it is about delivering value to stakeholders**
  - **It is not about programming, it is about making systems work, for real people**
- **Systems Focus**
  - **It is not about coding – (*again* ☺)**
  - **It is about reuse, data, hardware, training, motivation, sub-contracting, Outsourcing, help lines, user documentation, user interfaces, security, etc.**
  - **So, a systems engineering scope is necessary to deliver *results*.**
  - **Systems Engineering needs quantified performance and quality objectives**
    - **To synchronize all necessary disciplines, so that they deliver the results.**

- Ecstatic Stakeholder!

End of 1 Hour Lecture

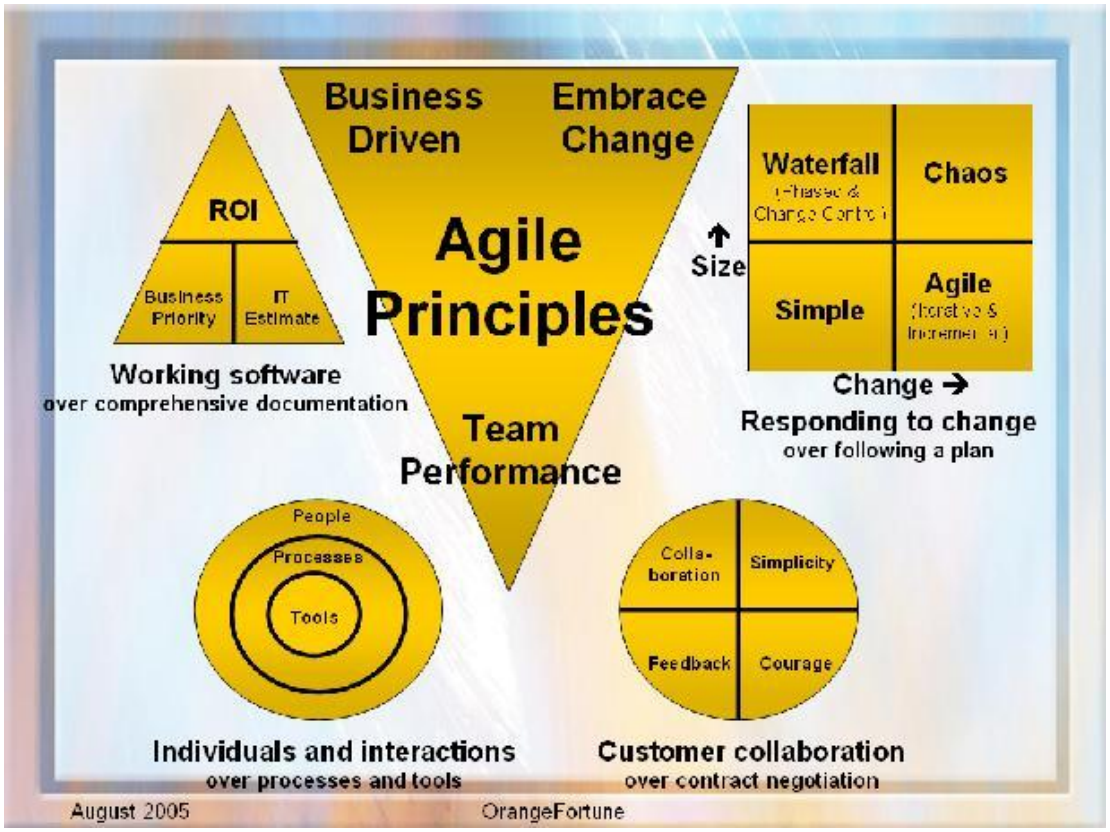
- Discussion Remarks Questions ?
  - Now, and throughout the conference
- And by email
  - TomsGilb@Gmail.com
  - CELL +47 92066 705, WHEN IN UK +44 (0) 77 1267 0707
  - @ ImTomGilb
- For another Norwegian case study of doing it right, see Confirmit
  - http://www.gilb.com/tiki-download_file.php?fileId=278
  - http://www.gilb.com/tiki-download_file.php?fileId=50
- See Value slides, following these, as an extra reserve, another angle.
    - From London BCS SPA Lecture 2009

Does real Software Practice Advancement need yet another 'Manifesto'?

"AGILE HAS DOOMED ITSELF - TO BECOME YET ANOTHER FAD ".

What is Seriously Wrong with Agile practices and interpretations - why AGILE, AS CURRENTLY PRACTICED, is PROJECT-failure-prone as a culture

"What is Tom's advice, his own more value-oriented 'agile' principles and values (see below) and metrics-oriented agile practices in Evo?

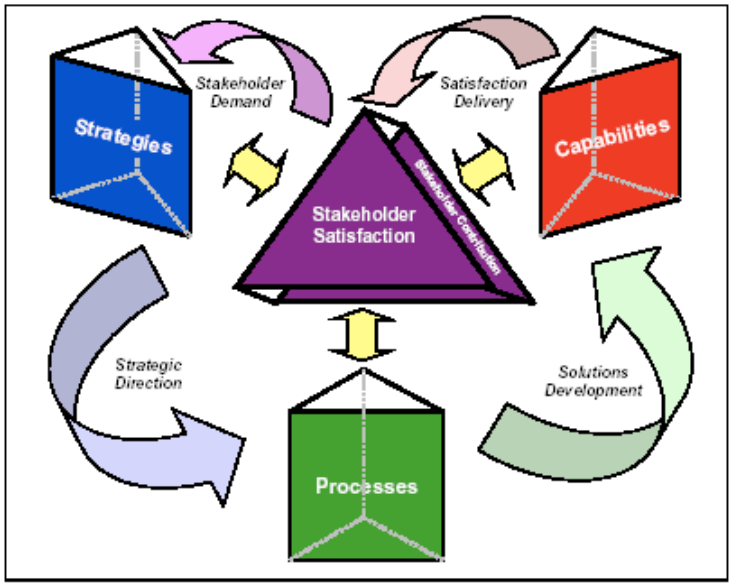


Gilb's 'Value Driven Planning' Principles:

1. **Critical Stakeholders determine the values**
2. **Values can and must be quantified**
3. **Values are supported by Value Architecture**
4. **Value levels are determined by timing, architecture effect, and resources**
5. **Value levels can differ for different scopes (where, who)**
6. **Value can be delivered early**
7. **Value can be locked in incrementally**
8. **New Values can be discovered (external news, experience)**
9. **Values can be evaluated as a function of architecture (Impact Estimation)**
10. **Value delivery will attract resources.**

Value Driven Planning Principles in Detail:

1. Critical Stakeholders determine the values

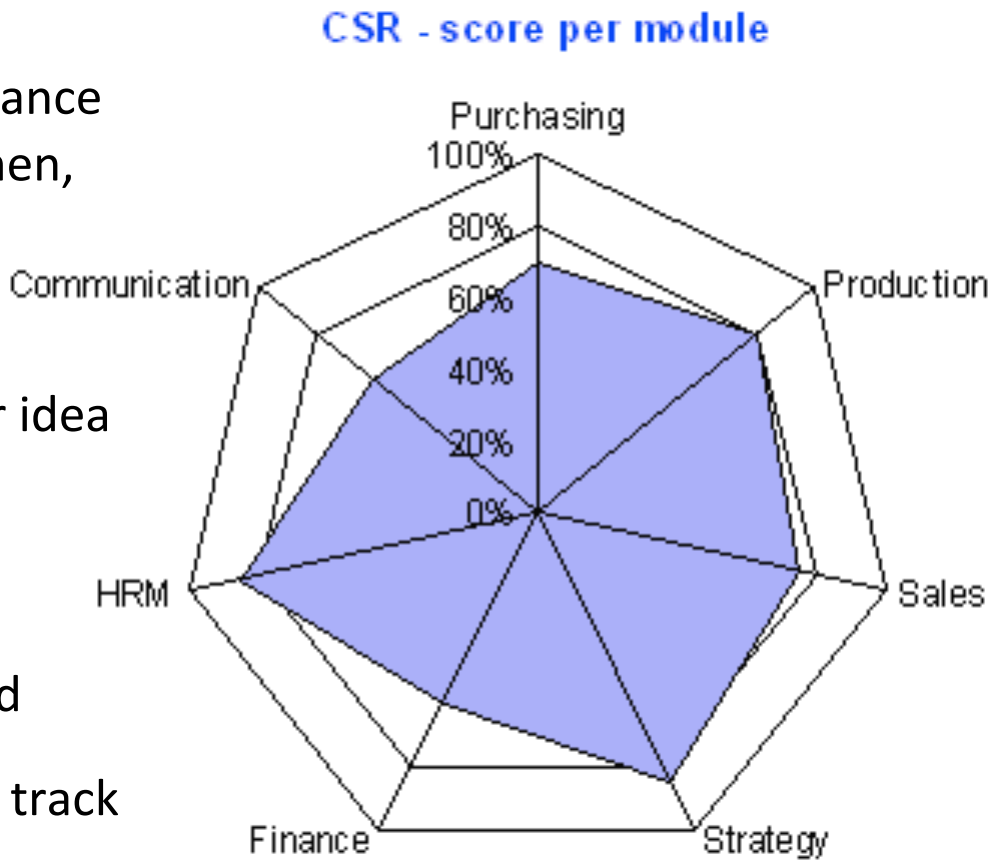


Critical: "having a decisive or crucial importance in the success or failure of something" <-Dictionary

- The primary and prioritized values we need to deliver are determined by
  - analysis of the needs and values of stakeholders
    - stakeholders who can determine whether we *succeed* or *fail*.
- We cannot afford to satisfy *other (less critical)* levels, at other times and places, yet.
  - Because that might undermine our ability to satisfy the more critical stakeholders –
  - and consequently threaten our overall project success.

2. 'Values' can and must be *quantified*

- Values can, if you want, be expressed numerically.
  - With a defined scale of measure
  - with a deliverable level of performance
  - and with qualifier info [Where, When, If]
- Quantification is useful:
  - to clarify your own thoughts
  - to get real agreement to one clear idea
  - to allow for varied targets and constraints
  - to allow direct comparison with benchmarks
  - to put in Request for bids, bids and contracts
  - to manage project evolutionarily : track progress
  - as a basis for measurement and testing
  - to enable research on methods



•Figure 1: Real (NON-CONFIDENTIAL version) example of an initial draft of setting the objectives that engineering processes must meet.

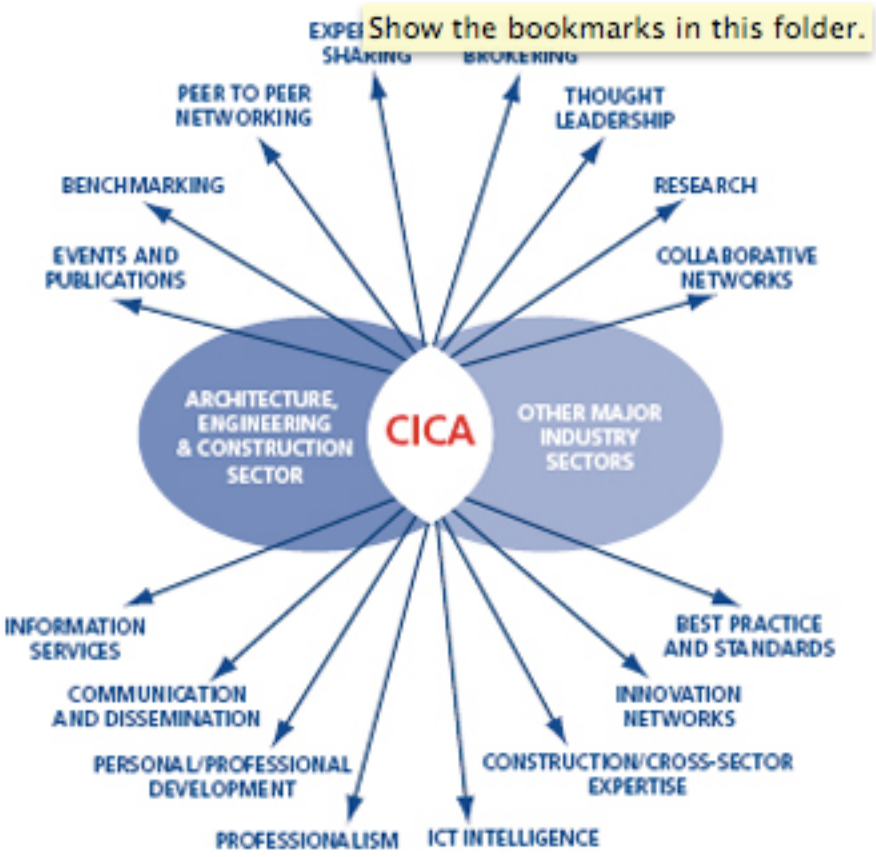
Business objective	Measure	Goal (200X)	Stretch goal ('0X)	Volume	Value	Profit	Cash
Time to market	Normal project time from GT to GT5	<9 mo.	<6 mo.	X		X	X
Mid-range	Min BoM for The Corp phone	<$90	<$30	X		X	X
Platformisation Technology	# of Technology 66 Lic. shipping > 3M/yr	4	6	X		X	X
Interface	Interface units	>11M	>13M	X		X	X
Operator preference	Top-3 operators issue RFQ spec The Corp	1	2	X		X	X
Productivity							X
Get Torden	Lyn goes for Technology 66 in Sep-04	Yes		X		X	X
Fragmentation	Share of components modified	<10%	<5%		X	X	X
Commoditisation	Switching cost for a UI to another System	>1yr	>2yrs		X	X	X
Duplication	The Corp share of 'in scope' code in best-selling device	>90%	>95%		X	X	X
Competitiveness	Major feature comparison with MX	Same	Better	X		X	X
User experience	Key use cases superior vs. competition	5	10	X	X	X	X
Downstream cost saving	Project ROI for Licensees	>33%	>66%	X	X	X	X
Platformisation IFace	Number of shipping Lic.	33	55	X		X	X
Japan	Share of of XXXX sales	>50%	>60%	X		X	X
	Numbers are intentionally changed from real ones						

Business Values Quantified

3. Values are supported by Value Architecture

- Value Architecture: defined as:
  - anything you *implement* with a view to satisfying stakeholder values.

- Value Architecture:
  - includes product/system objectives
    - Which are a 'design' for satisfying stakeholder values
  - Has a multitude of performance and cost impacts
  - can impact a given system differently, depending on what is in the system, or what gets put in later
  - Needs to try to maximize value delivered for resources used.



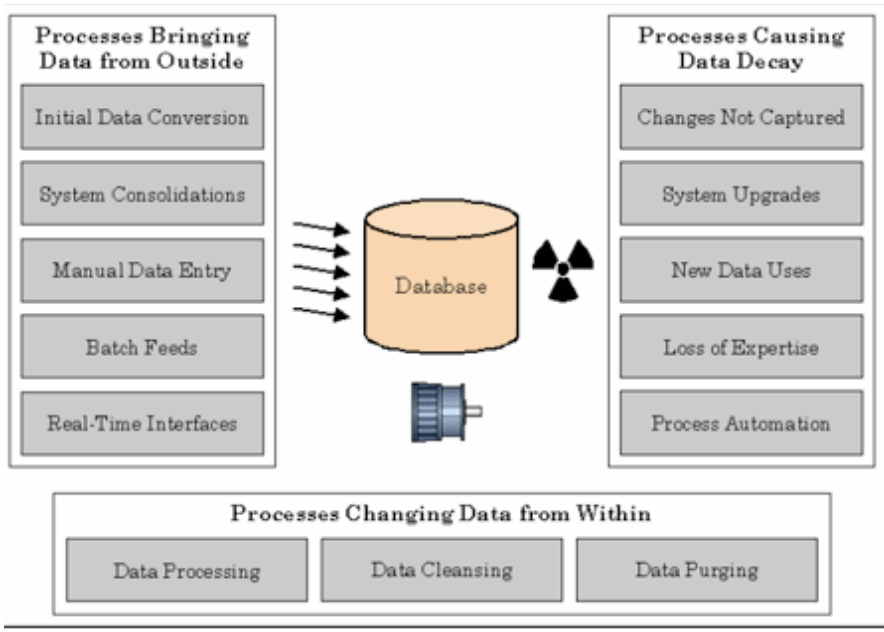
4. Value *levels* are determined by *timing*, *architecture effect*, and *resources*

Value levels: defined as:

the degree of satisfaction of value needs.

Value level:

- depends on *when* you observe the level
  - The environment, the people, other system performance characteristics (security, speed, usability)
- depends on the *current incremental power* of *particular value architecture* components
- depends on *resources available* both in development and operation

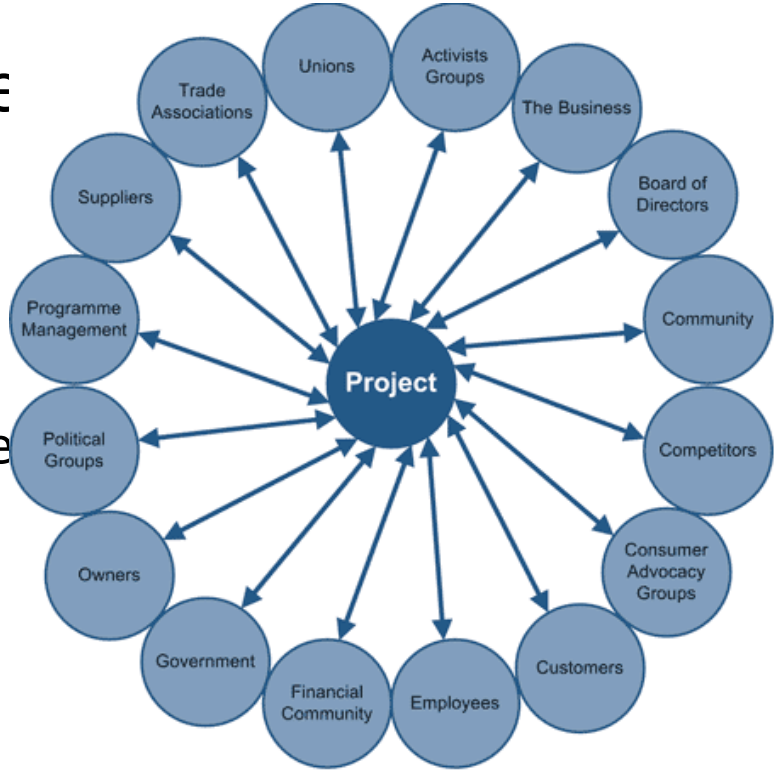


5. Required Value *levels* can differ for different scopes (where, who)

The level of value needed, and the level of value delivered - for a single attribute dimension (like Ease of Use) can vary for:

- different stakeholders
- at different times
  - (peak, holiday, slack, emergency, e implementation)
- for different 'locations'
  - countries, companies, industries

There is nothing simple like 'one level for all'



• 6. Value can be delivered *early*

You do not have to wait until 'the project is done' to deliver useful stakeholder value satisfaction.

You can intentionally target the highest priority stakeholders, and their highest priority value area, and levels.

You can deliver them early and continuously

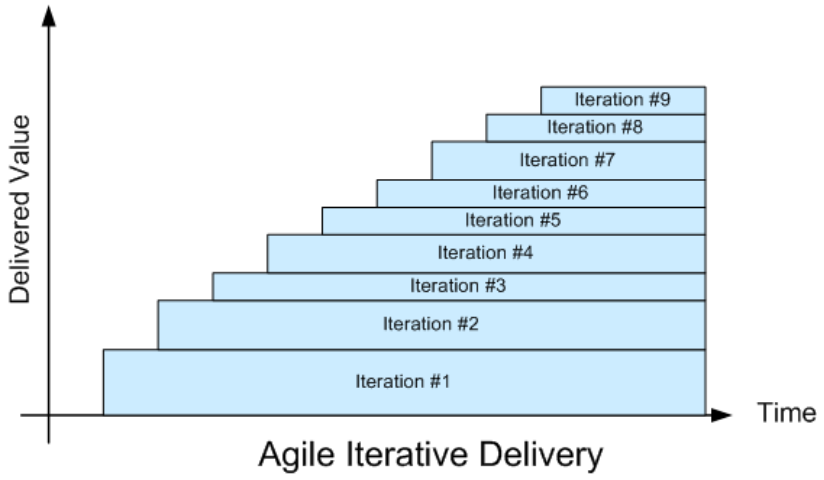
You can learn what is possible

And what stakeholders really value.

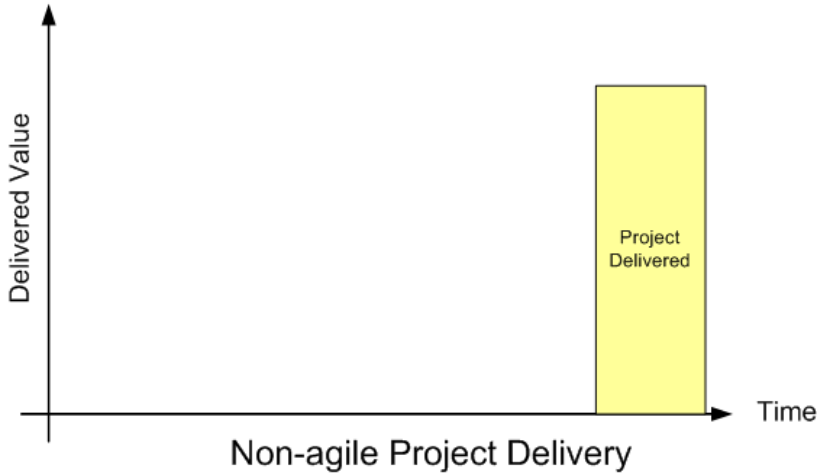
Discover new value ideas

Discover new stakeholders

Discover new levels of satisfaction



Agile Iterative Delivery



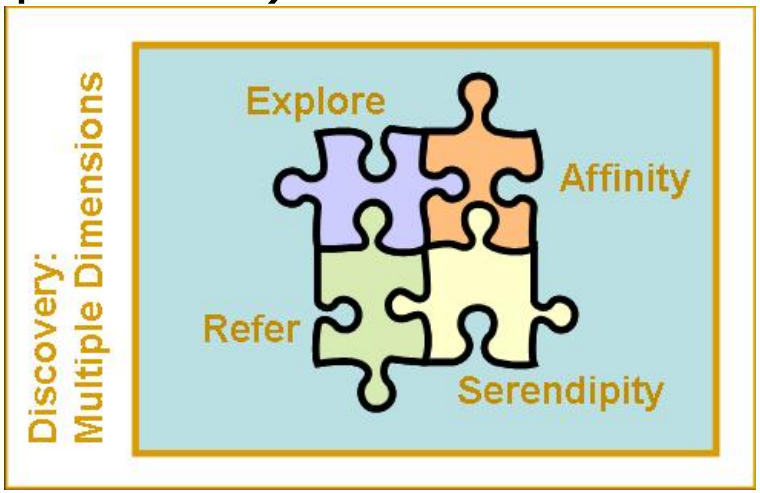
Non-agile Project Delivery

• 7. Value can be locked in incrementally

- You can increment the value satisfaction
  - *towards* longer term Goal levels
- You can spread the value deliveries
  - that are *proven* in *some* places,
  - more widely in the next increments
- This probably assumes that you have really handed over real results to real people.
  - Not just developed systems without delivery

8. New Values can be discovered (external news, experience)

- *Expect*, and try to discover,
  - entirely new stakeholder values.
- These will of course emerge *after you start delivering* some satisfaction, because:
  - Stakeholders believe you can help
  - Things *change*



9. Values can be *evaluated* as a function of *architecture* (using 'Impact Estimation')

- It is possible to get an **overview** of
  - the totality of impacts
  - that your **architecture**
  - (all designs and strategies)
  - **might** have
  - on all your defined stakeholder **ne**

		Viking Deliverables											
Business Objective	Weight	hardware adaptation	Telephony	Reference designs	IFace	Modularity	Defend vs Technology 66	Tools	User Experice	GUI & Graphics	Security	Defend vs OCD	Enterprise
Time to market	20%	20%	10%	30%	5%	10%	5%	15%	0%	0%	0%	5%	5%
Mid-range	10%	15%	0%	15%	0%	30%	15%	5%	10%	5%	5%	0%	0%
Platformisation Technology	5%	25%	10%	30%	0%	0%	10%	0%	5%	0%	10%	0%	5%
Interface	5%	5%	15%	15%	0%	5%	0%	5%	0%	0%	10%	0%	10%
Operator preference	10%	0%	10%	0%	15%	5%	20%	5%	10%	10%	20%	5%	10%
Get Torden	10%	25%	10%	10%	-10%	0%	20%	0%	10%	-20%	10%	10%	5%
Commoditisation	5%	20%	10%	20%	10%	-20%	25%	15%	0%	0%	5%	10%	5%
Duplication	10%	15%	10%	10%	0%	0%	40%	0%	0%	0%	5%	20%	5%
Competitiveness	5%	10%	15%	20%	0%	10%	20%	10%	10%	20%	10%	10%	10%
User experience	5%	5%	0%	0%	0%	20%	0%	0%	30%	10%	0%	0%	0%
Downstream cost saving	5%	15%	5%	20%	0%	10%	20%	0%	10%	0%	0%	10%	5%
Platformisation IFace	5%	10%	10%	20%	40%	0%	20%	5%	0%	0%	0%	0%	5%
Japan	5%	10%	5%	20%	0%	10%	0%	0%	10%	5%	0%	0%	0%
Contribution to overall result		15%	9%	17%	4%	7%	15%	6%	6%	1%	6%	6%	5%
Cost (£M)		£ 2.85	£ 0.49	£ 3.21	£ 2.54	£ 1.92	£ 2.31	£ 0.81	£ 1.21	£ 2.68	£ 0.79	£ 0.62	£ 0.60
ROI Index (100=average)		106	358	109	33	78	137	148	107	10	152	202	174

- Use an Impact Estimation table
  - and you will be able to spot *opportunities* for
    - high value and
    - low cost early deliveries
      - by analyzing the numbers on the table

See next slide
For enlargement

Strategy Impact Estimation:
for a $100,000,000 Organizational Improvement Investment

Objectives

Technical Strategies

Defined In earlier slide

Business Objective	hardware adaptation	Telephony	Reference designs	IFace	Modularity	Defend vs Technology 66	Tools	User Experience	GUI & Graphics	Security	Defend vs OCD	Enterprise
	Viking Deliverables											
Time to market	20%	10%	30%	5%	10%	5%	15%	0%	0%	0%	5%	5%
Mid-range	15%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]%	5%	10%	5%	5%	0%	0%
Platformisation Technology	25%	10%	30%	0%	[illegible]	10%	0%	5%	0%	10%	0%	5%
Interface	5%	15%	15%	0%	5%	0%	5%	0%	0%	10%	0%	10%
Operator preference	0%	[illegible]	[illegible]	[illegible]	[illegible]	20%	5%	10%	10%	20%	5%	10%
Get Torden	25%	10%	10%	-10%	0%	20%	0%	10%	-20%	10%	10%	5%
Commoditisation	20%	10%	20%	10%	-20%	25%	15%	0%	0%	5%	10%	5%
Duplication	15%	0%	10%	0%	0%	40%	0%	0%	0%	5%	20%	5%
Competitiveness	10%	15%	20%	0%	10%	20%	10%	10%	20%	10%	10%	10%
User experience	5%	[illegible]	0%	0%	[illegible]	[illegible]%	0%	30%	10%	0%	0%	0%
Downstream cost saving	15%	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]%	5%	10%	0%	0%	10%	5%
Platformisation IFace	10%	10%	20%	40%	0%	20%	5%	0%	0%	0%	0%	5%
Japan	10%	5%	20%	0%	10%	0%	0%	10%	5%	0%	0%	0%
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ROI Index (100=average)	106	358	109	33	78	137	148	107	10	152	202	174

Strategy Impacts "Benefits" on Objectives

Cost

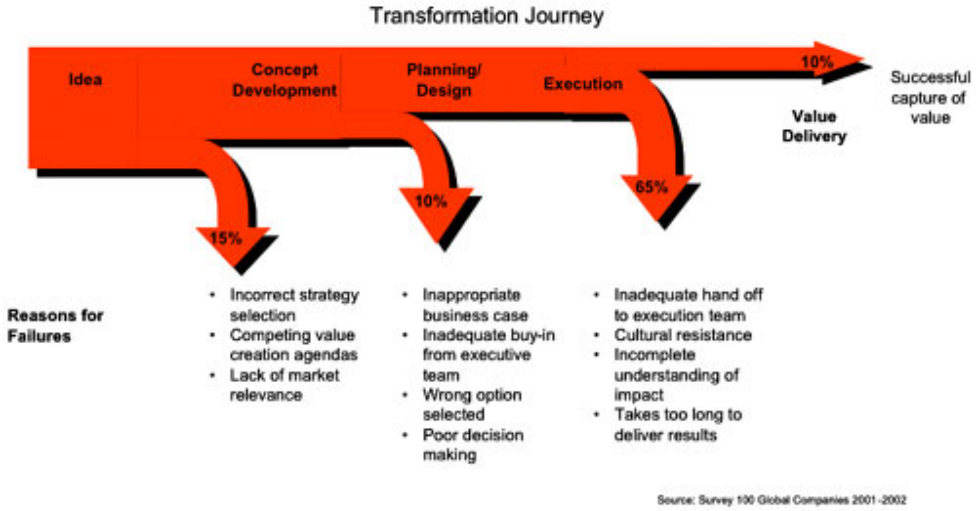
358 !

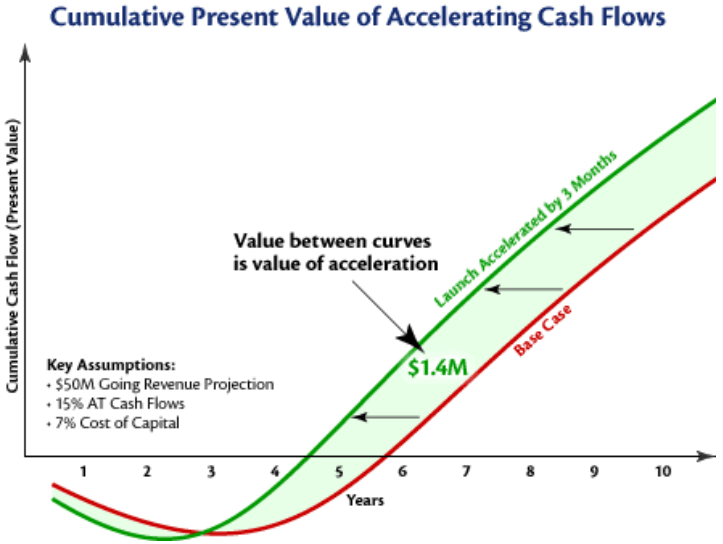
10. Value delivery will attract resources.

- If you are really good at delivering value
  - You can expect to attract
    - even more funding
  - Managers like
    - to be credited with success
  - Money seeks
    - best interest rates

Gilb's Value Manifesto: A Management Policy?

1. **Really useful value, for real stakeholders will be defined measurably.**
   No nice-sounding emotive words please.
2. **Value will be seen in light of total long term costs**
   as a decent return on investment.
3. **Powerful management devices, like motivation and follow-up, will make sure that the value for money is really delivered –**
   or that the failure is punished, and the success is rewarded.
4. **The value will be delivered evolutionarily –**
   not all at the end.
5. **That is, we will create a stream of prioritized value delivery to stakeholders, at the *beginning* of our value delivery projects;**
   and continue as long as the real return on investment is suitably large.
6. **The CEO is primarily responsible for making all this happen effectively.**
   1. **The CFO will be charged with tracking all value to cost progress.**
   2. **The CTO and CIO will be charged with formulating all their efforts in terms of measurable value for resources.**





Source "Value Delivery in Systems Engineering" available at www.gilb.com
Unpublished paper http://www.gilb.com/community/tiki-download_file.php?fileId=137

The Value Delivery Problem

- **Sponsors who order and pay for systems engineering projects,**
  - **must justify their money spent**
  - **based on the expected consequential effects (hereafter called 'value') of the systems.**

- **The *value* of the technical system is often expressed**
  - **in presentation slides and requirements documents**
  - **as a set of nice-sounding words,**
  - **under various titles such as "System Objectives", and "Business Problem Definition"**

Some Assertions

Assertion 1. When top management allows large projects to proceed, with such badly formulated primary objectives, then

- **they are responsible as managers for the outcome (failure).**
- **They cannot plead ignorance.**

Assertion 2. The failure of technical staff (project management) to react to the lack of primary objective formulation by top management is also a total failure to do reasonable systems engineering.

- **Management might have a poor requirements culture, but we should routinely save them from themselves.**

Assertion 3. Both top managers and project personnel can be trained and motivated to clarify and quantify critical objectives routinely.

- **But until the poor external culture of education and practice changes, it may take strong CEO action to make this happen in your corporation.**
- **My experience is that no one else will fight for this.**

Assertion 4. All top level system performance improvements, are by definition, variables.

- **So, we can expect to define them quantitatively.**
- **We can also expect to be able to measure or test the current level of performance.**
- **Words like 'enhanced', 'reduced', 'improved' are not serious systems engineering requirements terms.**