An Agile Project Startup Week

By Tom@Gilb.com

MASTER 2016

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Rene Descartes on Focus

- **"We should bring the whole force of our minds**
  - **to bear upon the most minute and simple details**
  - **and to dwell upon them for a long time**
  - **so that we become accustomed to perceive the truth clearly and distinctly."**
- **Rene Descartes, Rules for the Direction of the Mind, 1628**

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The Agile Startup Week

- Purpose
  - Draft the critical achievements
    - Aka top level critical objectives, quantified
  - Draft the major means to get there
    - Aka architecture, strategies
  - Check that means meet mission
    - Using an Impact Estimation Table
  - Decompose work to find immediate next week value delivery
    - Get started
    - Keep it simple
    - Prove you can deliver
    - Get credibility
  - Get management support
    - To try it out
    - To see if we really can deliver value 'next week'
    - An offer they cannot refuse
- Means
  - 1 week and 1 day time boxing
  - 1 page outputs per day
  - Planguage:
  - Competitive Engineering
  - Evo (the agile process) as a delivery vehicle
    - Value Delivery Progress Quantified
    - Empowered Dev Teams to do detailed design
      - 'Empowered Creativity'
    - *Measurement* decides what is right: not a steering committee or 'management'

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Agilerecord.com
gilb.com/dl568

Gilb's Mythodology Column

An Agile Project Startup Week: 'Evo Start'

by Tom & Kai Gilb

We would like to describe how we start up agile projects, which are completed using our 'Evo' [6] agile method [2, 3].

We have been using exactly this Project start-up method worldwide, in many companies, and for both software/IT projects and other systems engineering projects (like 25 (now) Boeing Aircraft Projects in 1990) for decades, and it works. It gives a flying start to the incremental value delivery process: starting with value delivery, the 2nd week.

This process is appropriate for any consequent agile process, such as our 'Evo', which is focussed on delivering real measurable stakeholder value incrementally, as opposed to the majority of current agile methods which are focussed on delivering code; but, which do not attempt to define or deliver real stakeholder value itself, directly.

One solution to the agile problem of 'code fixation', which one of our multinational bank clients has recently adopted, for the wide variety of agile methods being used in the bank, is to suggest that the 'Evo' process [2] be added on top of their current agile process, for example on Scrum or/and XP. Evo then manages the stakeholder value, and Evo provides value design ideas to the code development team.

Evo will not only output ideas for code (a burn down stack), but will in fact output any (non code) design ideas that will help deliver stakeholder value, such as training programmes, database construction, or motivational tactics. Evo operates at the systems engineering level, as Scrum allows in principle.

The Evo startup week is a sort of feasibility study, in the sense of

- Day 1: Drafting a feasible set of top 10 quantified project value objectives
- Day 2: Drafting a top 10 architecture hypothesis set
- Day 3: Estimating the multiple effects of all architecture on all value objectives, and critical resource constraints (budget, deadline)
- Day 4: Suggesting initial value delivery steps, next week
- Day 5: Getting management approval to proceed with the second week, and to see if we can really deliver value to stakeholders.

The Evo week is intentionally time boxed (one week), no matter what the size of the project. This is done so that:

- We do not get into weeks and months of bureaucratic start up overhead, before we have to deliver real value to stakeholders
- We will focus on the critical top level objectives [5]
- The detailed design will emerge iteratively, as a result of value measurement, and feedback.

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The ASW Standard (sample = Day1)
gilb.com/dl562

- Day 1: <u>Project Objectives</u>: The top few critical objectives quantified.
  - Objective: Determine, clarify, agree critical few project objectives – results – end states
  - Process:
    - **Analyze current documentation and slides, for expressed or implied objectives (often implied by designs or lower level objectives)**
    - **Develop list of Stakeholders and their needs and values**
    - **Brainstorm 'top ten' critical objectives names list. Agree they are top critical few.**
    - **Detail definition in Planguage – meaning quantify and define clearly, unambiguously and in detail (a page)**
    - **Quality Control Objectives for Clarity: Major defect measurement. Exit if less than 1.0 majors per page**
    - **Quality Control Objectives for Relevance: Review against higher level objectives than project for alignment.**
    - **Define Constraints: resources, traditions, policies, corporate IT architecture, hidden assumptions.**
    - **Define Issues – yet unresolved**
    - **Note we might well choose to several things in parallel.**

- **Output**: A solid set of the top few critical *objectives* in quantified and measurable language. *Stakeholder* data specified.

- **Participants**: anybody who is concerned with the <u>business results</u>, the higher the management level the better.

- **End of Day Process**: meet 30 minutes with any responsible interested managers to present the outputs, and to get preliminary corrections and go-ahead.

- **Note**: this process is so critical and can be time consuming, so if necessary it can spill over to next day. Perhaps in parallel with startup of the strategy identification. *Nothing is more critical or fundamental than doing this well*.

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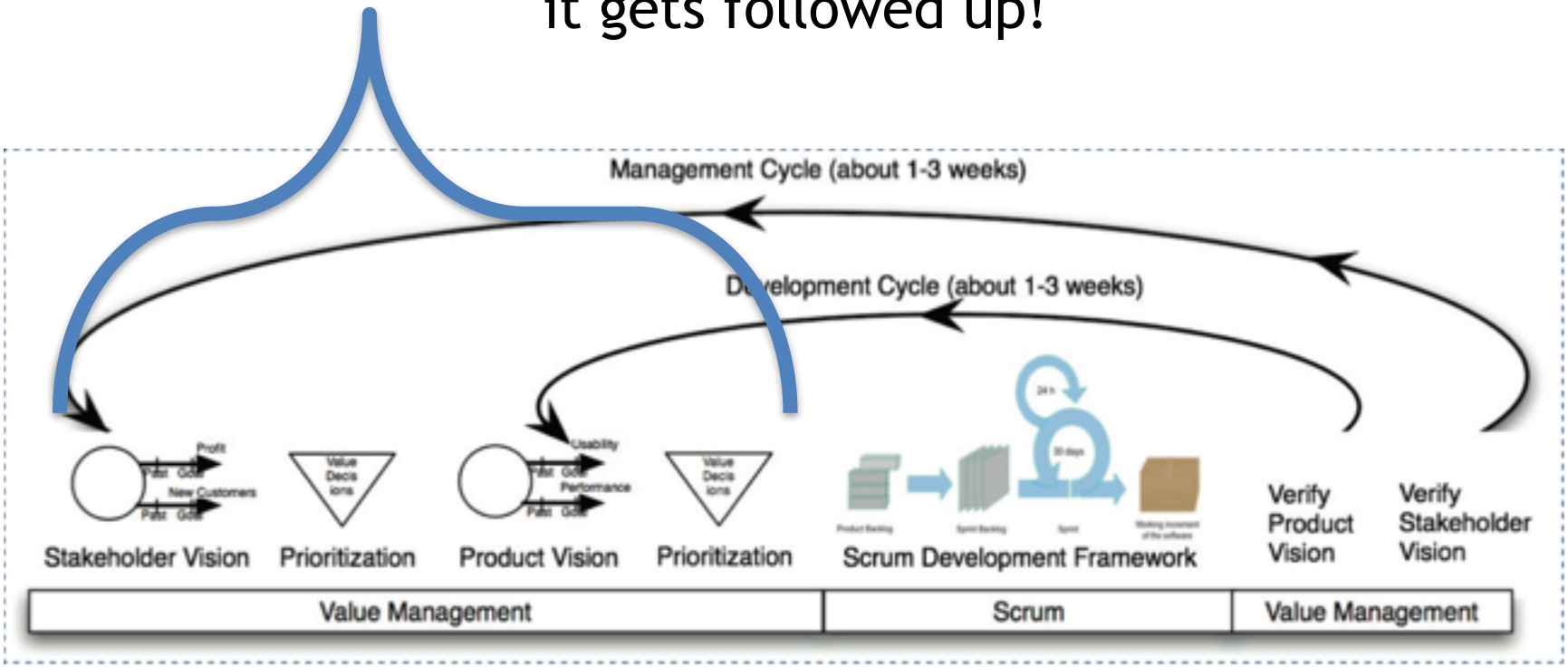
Startup Week is the Front End of an iterative process: it gets followed up!



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Startup Process Day 1 and 2

- **Day 1: <u>Project Objectives</u>: The top few critical objectives quantified.**
  - **Objective: Determine, clarify, agree critical few project objectives – results – end states**
  - **Process:**
    - **Analyze current documentation and slides, for expressed or implied objectives (often implied by designs or lower level objectives)**
    - **Develop list of Stakeholders and their needs and values**
    - **Brainstorm 'top ten' critical objectives names list. Agree they are top critical few.**
    - **Detail definition in Planguage – meaning quantify and define clearly, unambiguously and in detail (a page)**
    - **Quality Control Objectives for Clarity: Major defect measurement. Exit if less than 1.0 majors per page**
    - **Quality Control Objectives for Relevance: Review against higher level objectives that provide for alignment.**
    - **Define constraints, resources, traditions, policies, corporate IT architecture, hidden assumptions.**
    - **Define Issues – yet unresolved**
    - **Note we might well choose to several things in parallel.**
  - **Output: A solid set of the top few critical objectives in quantified and measurable language. Stakeholder data specified.**
  - **Participants: anybody who is concerned with the <u>business results</u>, the higher the management level the better.**
  - **End of Day Process: meet 30 minutes with any responsible interested managers to present the outputs, and to get preliminary corrections and go-ahead.**
  - **Note: this process is so critical and can be time consuming, so if necessary it can spill over to next day. Perhaps in parallel with startup of the strategy identification. Nothing is more critical or fundamental than doing this well.**

- **Day 2: <u>Project Strategies and Architecture</u>: the top few critical strategies for reaching the critical objectives**
  - **Objective: to identify the top 'ten' most critical strategic decisions or architectures; the ones that will contribute or enable us most, to reach our primary objective goal levels on time.**
  - **Process:**
    - **Analysis of current documentation and slides to identify candidate strategies, implied or expressed.**
    - **Brainstorming of the 'names' of the specific strategy list, the top ten and a set of less powerful ideas (say 11-30)**
    - **Detail each top ten strategy sufficiently to understand impacts (on objectives, time and costs)**
    - **Specify relevant external related information (list stakeholders, risks, assumptions, constraints, etc.)**
    - **Quality Control for clarity – correct unclear items. Exit based on defect level, or not.**
    - **Likely that work will need to be done in parallel in order to do ten strategies to a rich level of specification.**
  - **Output: A firm strategy specification, ready for evaluation and decomposition and delivery of partial value results.**
  - **Participants: system architects, project architects, strategy planners. And members of the project team who will be in on the entire weeks process. The major input here is the critical and important strategies which means to achieve the objective.**
  - **End of Day Process: : meet 30 minutes with any responsible interested managers to present the outputs, and to get preliminary corrections and go-ahead.**

Quantify Critical Goals

Identify Best Architecture

Startup Process Day 3 and 4

Day 3: Evaluation of Strategies using Impact Estimation: our best estimates with experience and risk. How sure are of the major strategy decisions.

- **Objective: to estimate to primary effects and all side effects of all top critical strategies on all top critical objectives, and on some resources (time, cost, effort). The estimates will be backed up by evidence, or their credibility will be rated low.**
- **Process:**
  - **Using the objectives and strategies developed on first 2 days as inputs**
  - **Populate an Impact Estimation table (aka Value Decision Table) with estimates of the expected result of deploying defined strategies. Estimate main intended impacts**
  - **And all side effects (on other core objectives)**
  - **And on all resources (time, money. Effort)**
  - **Estimate ± ranges**
  - **[illegible] evidence and sources for estimates**
  - **[illegible] credibility levels**
  - **Quality Control the IE table against standards (rules for IE [illegible]) for possible "bit" (needed standards)**
  - **Lots of parallel work needed and expected to do a good job.**
- **Output:**
  - **A fairly decent Impact Estimation table, possibly a several level set of them**
  - **This [illegible] used [illegible] to [illegible] good enough strategies [illegible] and will help prioritize the value delivery steps [illegible].**
- **Participants: architects, planners, anybody with strong views on any of the strategies. The team for the week.**
- **Note: it might be necessary and desirable, now or later, to do this impact estimation process at 2 or 3 related levels (Business, Stakeholder, IT [illegible]) [illegible] the business relationship clearly. This might expose [illegible] and be done parallel or later.**
- **End of Day Process: meet 30 minutes with any responsible interested managers to present the outputs, and to get preliminary corrections and go-ahead.**

Day 4: Evolutionary Step Decomposition: what are the high value short term value delivery steps we can execute.

- **Objective: to identify near team candidates for real value delivery to real stakeholders. What can we do real next week.**
- **Process:**
  - **Identify highest value (to costs) strategies and sub-sets of strategies**
  - **Decompose into doable subsets in weekly to monthly cycles of result delivery**
  - **Plan the near steps (1 or more) in detail so that we are ready to execute the step in practice.**
    - **Who does it, main responsible, team.**
    - **Expected measurable results and costs**
    - **Stakeholder involved in receiving**
    - **Test process (for value)**
- **Output: 1 or more near term steps for value delivery to some stakeholders, a plan good enough to approve and execute in practive.**
- **Participants: Project Management, architects prepared to decompose architecture in practice. The weekly team of this start up study.**
- **End of Day Process: meet 30 minutes with any responsible interested managers to present the outputs, and to get preliminary [illegible]**

Estimate Architecture Power

Identify Quick wins = Delivered value next week

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Tao Te Ching (500BC)

- **That which remains quiet, is easy to handle.**
- **That which is not yet developed is easy to manage.**
- **That which is weak is easy to control.**
- **That which is still small is easy to direct.**
- **Deal with little troubles before they become big.**
- **Attend to little problems before they get out of hand.**
  - **For the largest tree was once a sprout,**
- **the tallest tower started with the first brick,**
- **and the longest journey started with the first step.**

– **From Lao Tzu in Bahn, 1980 (also quoted in Gilb, Principles of Software Engineering Management page 96), Penguin book**

Day 5: Boss Says ‘Go’ (next week only)

- Boss approves doing the next week
  - This is normally used to present the plan to management and get approval to go forward the next week.
  - In our case we have chosen a 4 days model due to Easter Holidays. So we have to find another way to present and approve.
  - **Objective**: To present the entire set of plans to responsible executive(s) and discuss them, with approval if possible, or approve with changes.
  - **Process**:
    - Present all planned outputs
    - Discuss them and answer questions
    - Take corrections
    - Get approval for the next implementation step.
  - **Output**: Approval for next implementation step, corrections
  - **Participants**: project tem + key manager above the project manager.
  - **End of Day Process: none, unless corrections needed before execute OK.**
    - Possible corrections and ready to execute a delivery step next week
  -

Boss Approves
Next week experiment
To
Get Real Value Delivered
And measured

A True 'War Story'
illustrating a startup week for a legacy system (11 years old, and failing)

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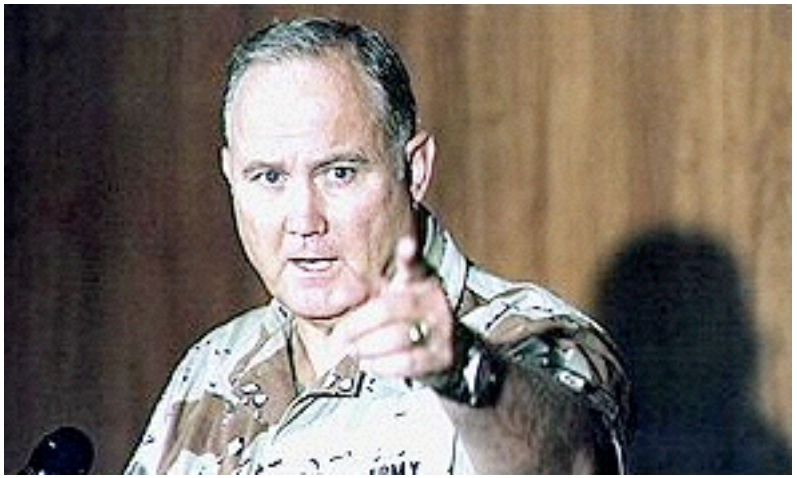
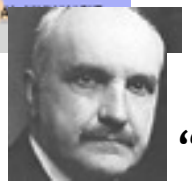
The *Persinscom IT System* Case

Commanding General
Norman Schwartzkopf

´Stormin´ Norman´



He who does not learn from history
Is doomed to repeat it

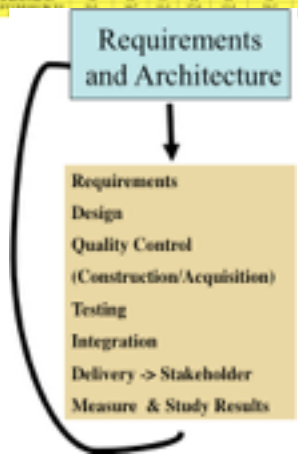


A Man Who understood that
“a bird in the hand is worth two in the Bush” <-tsg

The ´Evo´ Planning Week at DoD

- Monday
  - Define top Ten critical objectives, quantitatively
  - Agree that thee 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



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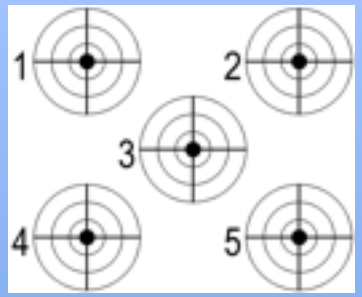
US Army Example: PERSINSCOM: Personnel System

STRATEGIES ➔ OBJECTIVES
Customer Service ?➔0 Violation of agreement
Availability 90% ➔ 99.5% Up time
Usability 200 ➔ 60 Requests by Users
Responsiveness 70% ➔ ECP's on time
Productivity 3:1 Return on Investment
Morale 72 ➔ 60 per mo. Sick Leave
Data Integrity 88% ➔ 97% Data Error %
Technology Adaptability 75% Adapt Technology
Requirement Adaptability ? ➔ 2.6% Adapt to Change
Resource Adaptability 2.1M ➔ ? Resource Change
Cost Reduction FADS ➔ 30% Total Funding



Monday

←The Top Ten Critical Objectives Were decided

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Sample of Objectives/Strategy definitions
US Army Example: PERSINSCOM: Personnel System

- *Example of one of the Objectives:*

<u>Customer Service:</u>

Type: Critical Top level Systems Objective

Gist: Improve customer perception of quality of service provided.

Scale: Violations of Customer Agreement per Month.

Meter: Log of Violations.

Past [Last Year] Unknown Number ←State of PERSCOM Management Review

Record [NARDAC] 0 ? ← NARDAC Reports Last Year

Fail : <must be better than Past, Unknown number> ←CG

Goal [This Year, PERSINCOM] 0 "Go for the Record" ← Group SWAG

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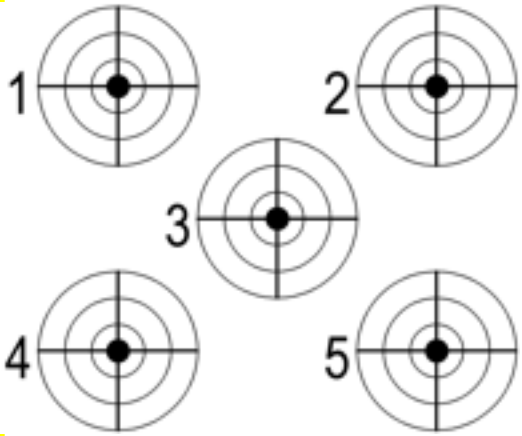

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US Army Example: PERSINSCOM: Personnel System

STRATEGIES ➔ OBJECTIVES	Technology Investment	Business Practices	People	Empow-erment	*Principles of IMA Management*	Business Process Re-engineering	SUM
Customer Service ?➔0 Violation of agreement							
Availability 90% ➔ 99.5% Up time							
Usability 200 ➔ 60 Requests by Users							
Responsiveness 70% ➔ ECP's on time							
Productivity 3:1 Return on Investment							
Morale 72 ➔ 60 per mo. Sick Leave							
Data Integrity 88% ➔ 97% Data Error %							
Technology Adaptability 75% Adapt Technology							
Requirement Adaptability ? ➔ 2.6% Adapt to Change							
Resource Adaptability 2.1M ➔ ? Resource Change							
Cost Reduction FADS ➔ 30% Total Funding							

Tuesday

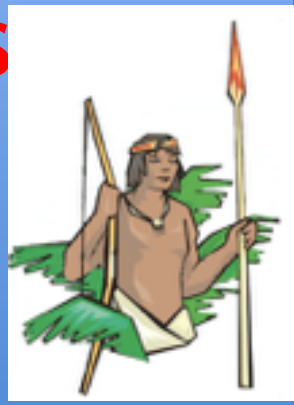
The Top Ten

Critical **Strategies**

For reaching the

←objectives

Were decided



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A Strategy (Top Level of Detail)

<u>Technology Investment</u>:

Gist: Exploit investment in high return technology.

Impacts: productivity, customer service and conserves resources.

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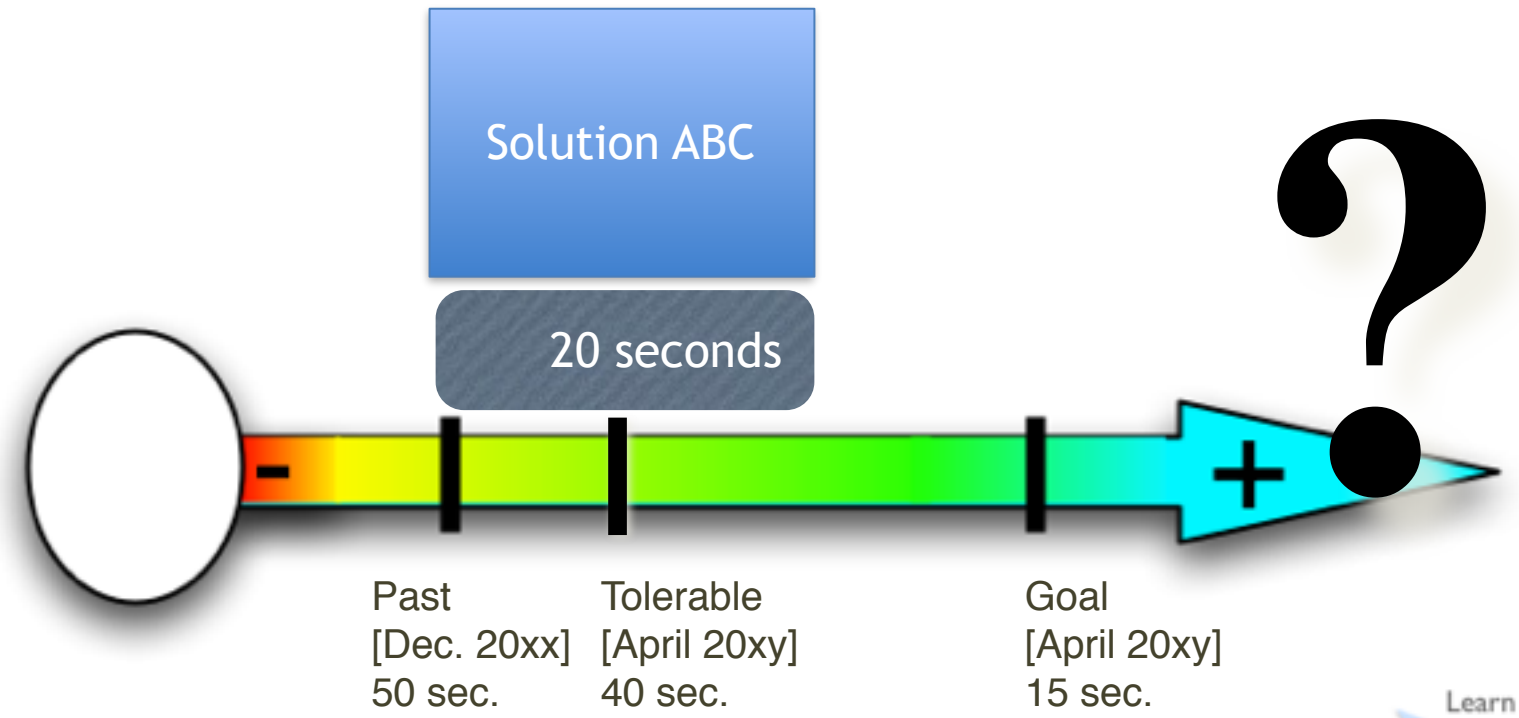
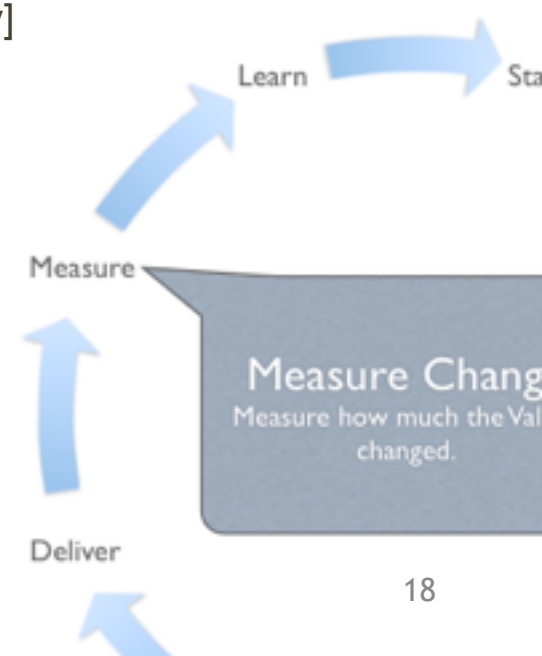
The real-scale impact of a solution on a single improvement objective goal





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<u>SOLUTION</u> RESPONSIBILITY:
Quantify impact of all suggested **strategies, architectures**, on all critical objectives, deadline, and budget.

NOT ☹️

- Just *name* an idea/design
- Assert the design is good
- Fail to explain how you know
- Fail to take responsibility
- Fail to measure results
- Fail to consider all requirements
- Fail to even estimate costs

- ***<u>Real (Bad) Example</u>:*** *"Tool Simulators, Reverse Cracking Tool, Generation of simulated telemetry frames entirely in software, Application specific sophistication, for <our domain>– recorded mode simulation by playing back the dump file, Application test harness console" <-6.2.1 HFA*

YES ! ☺️

- Describe detail for estimation
- Estimate the impact on Goals
- Estimate the ± uncertainty
- Specify the estimate evidence
- Estimate all objectives
- Estimate all resources

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Wednesday: Sanity Check
Day 3 of 5 of 'Feasibility Study

- **We made a rough evaluation**
  - **of how powerful our strategies might be**
  - **in relation to our objectives**

- **Impact Estimation Table**
  - **0% Neutral, no ± impact**
  - **100% Gets us to Goal level on time**
  - **50% Gets us half way to Goal at deadline**
  - **-10% has 10% negative side effect**

STRATEGIES ➔ OBJECTIVES	Technology Investment	Business Practices	People	Empow-erment	*Principles of IMA Management*	Business Process Re-engineering	SUM
Customer Service ?➔0 Violation of agreement	50%	10%	5%	5%	5%	60%	185%
Availability 90% ➔ 99.5% Up time	50%	5%	5-10%	0	0	200%	265%
Usability 200 ➔ 60 Requests by Users	50%	5-10%	5-10%	50%	0	10%	130%
Responsiveness 70% ➔ ECP's on time	50%	10%	90%	25%	5%	50%	180%
Productivity 3:1 Return on Investment	45%	60%	10%	35%	100%	53%	303%
Morale 72 ➔ 60 per mo. Sick Leave	50%	5%	75%	45%	15%	61%	251%
Data Integrity 88% ➔ 97% Data Error %	42%	10%	25%	5%	70%	25%	177%
Technology Adaptability 75% Adapt Technology	5%	30%	5%	60%	0	60%	160%
Requirement Adaptability ? ➔ 2.6% Adapt to Change	80%	20%	60%	75%	20%	5%	260%
Resource Adaptability 2.1M ➔ ? Resource Change	10%	80%	5%	50%	50%	75%	270%
Cost Reduction FADS ➔ 30% Total Funding	50%	40%	10%	40%	50%	50%	240%
SUM IMPACT FOR EACH SOLUTION	***482%***	***280%***	***305%***	***390%***	***315%***	***649%***	
Money % of total budget	15%	4%	3%	4%	6%	4%	
Time % total work months/year	15%	15%	20%	10%	20%	18%	
SUM RESOURCES	***30***	***19***	***23***	***14***	***26***	***22***	
BENEFIT/RESOURCES RATIO	***16:1***	**14:7**	**13:3**	**27:9**	**12:1**	**29:5**	

MEASURING HAND FOR GLOVE SIZE

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US DoD. Persinscom **Impact EstimationTable**:

Designs

Requirements

Design Ideas ->	*Technology Investment*	*Business Practices*	*People*	*Empowerment*	*Principles of IMA Management*	*Business Process Re-engineering*	*Sum Requirements*
	50%	[illegible]	5%	5%	5%	60%	185%
Availability 90% <-> 99.5% Up time	50%	[illegible]	5–10%	0%	0%	200%	265%
Usability 200 <-> 60 Requests by Users	[illegible]	[illegible]	5–10%	50%	0%	10%	130%
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Cost Reduction FADS <-> 30% Total Funding	50%	40%	10%	40%	50%	50%	240%
Sum of Performance	*482%*	*280%*	*305%*	*390%*	*315%*	*649%*	
Money % of total budget	15%	4%	3%	4%	6%	4%	36%
Time % total work months/year	15%	15%	20%	10%	20%	18%	98%
Sum of Costs	*30*	*19*	*23*	*14*	*26*	*22*	
Performance to Cost Ratio	*16:1*	*14:7*	*13:3*	*27:9*	*12:1*	29.5 :1	

Estimated Impact of

Design
-> Requirements

US Army Example: PERSINSCOM: Personnel System

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Impact Estimation: Value-for-Money Delivery Table

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Responsiveness 70% ➔ ECP's on time	50%	10%	90%	25%	5%	50%	180%
Productivity 3:1 Return on Investment	45%	60%	10%	35%	100%	53%	303%
Morale 72 ➔ 60 per mo. Sick Leave	50%	5%	75%	45%	15%	61%	251%
Data Integrity 88% ➔ 97% Data Error %	42%	10%	25%	5%	70%	25%	177%
Technology Adaptability 75% Adapt Technology	5%	30%	5%	60%	0	60%	160%
Requirement Adaptability ? ➔ 2.6% Adapt to Change	80%	20%	60%	75%	20%	5%	260%
Resource Adaptability 2.1M ➔ ? Resource Change	10%	80%	5%	50%	50%	75%	270%
Cost Reduction FADS ➔ 30% Total Funding	50%	40%	10%	40%	50%	50%	240%
SUM IMPACT FOR EACH SOLUTION	***482%***	***280%***	***305%***	***390%***	***315%***	***649%***	
Money % of total budget	15%	4%	3%	4%	6%	4%	
Time % total work months/year	15%	15%	20%	10%	20%	18%	
SUM RESOURCES	***30***	***19***	***23***	***14***	***26***	***22***	
BENEFIT/RESOURCES RATIO	***16:1***	**14:7**	**13:3**	**27:9**	**12:1**	**29.5 : 1**	

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Thursday:
Day 4 of 5 of 'Feasibility Study

- We looked for a way to deliver some stakeholder results, next week
- **1 1 1 1 1 1 Unity**
  - **1% increase at least**
  - **1 stakeholder**
  - **1 quality/value**
  - **1 week delivery cycle**
  - **1 function focus**
  - **1 design used**

STRATEGIES ➔ OBJECTIVES	Technology Investment	Business Practices	People	Empow-erment	*Principles of IMA Management*	Business Process Re-engineering	SUM
Customer Service ?➔0 Violation of agreement	50%	10%	5%	5%	5%	60%	185%
Availability 90% ➔ 99.5% Up time	50%	5%	5-10%	0	0	200%	265%
Usability 200 ➔ 60 Requests by Users	50%	5-10%	5-10%	50%	0	10%	130%
Responsiveness 70% ➔ ECP's on time	50%	10%	90%	25%	5%	50%	180%
Productivity 3:1 Return on Investment	45%	60%	10%	35%	100%	53%	303%
Morale 72 ➔ 60 per mo. Sick Leave	50%	5%	75%	45%	15%	61%	251%
Data Integrity 88% ➔ 97% Data Error %	42%	10%	25%	5%	70%	25%	177%
Technology Adaptability 75% Adapt Technology	5%	30%	5%	60%	0	60%	160%
Requirement Adaptability ? ➔ 2.6% Adapt to Change	80%	20%	60%	75%	20%	5%	260%
Resource Adaptability 2.1M ➔ ? Resource Change	10%	80%	5%	50%	50%	75%	270%
Cost Reduction FADS ➔ 30% Total Funding	50%	40%	10%	40%	50%	50%	240%
SUM IMPACT FOR EACH SOLUTION	***482%***	***280%***	***305%***	***390%***	***315%***	***649%***	
Money % of total budget	15%	4%	3%	4%	6%	4%	
Time % total work months/year	15%	15%	20%	10%	20%	18%	
SUM RESOURCES	***30***	***19***	***23***	***14***	***26***	***22***	
BENEFIT/RESOURCES RATIO	***16:1***	**14:7**	**13:3**	**27:9**	**12:1**	**29:5**	

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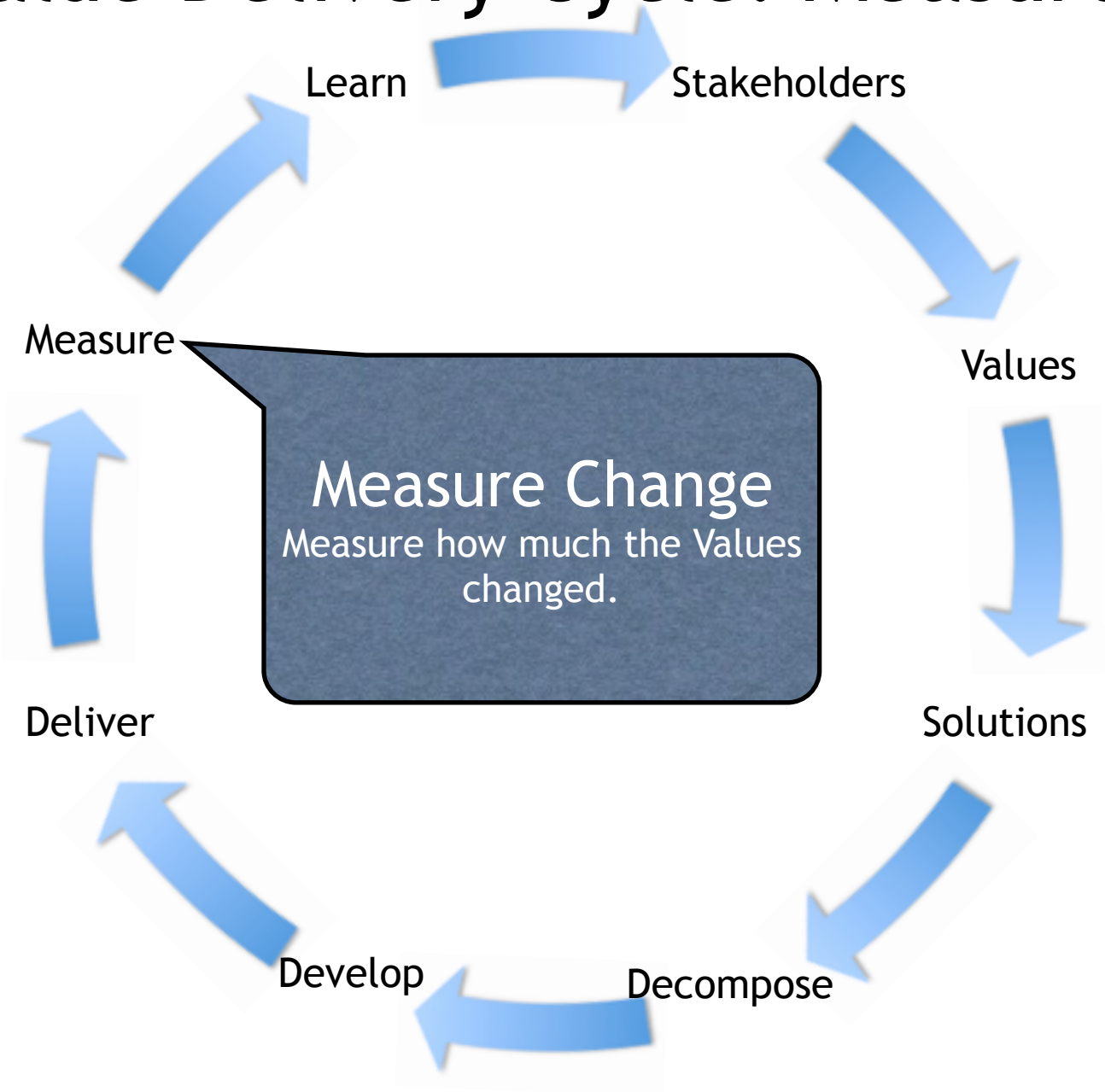
Next weeks Evo Step??

- **“You won’t believe we never thought of this, Tom!’**

- **The step:**
  - **When the Top General Signs in**
  - **Move him to the head of the queue**
    - **Of all people inquiring on the system.**

- **Can you deliver it next week?**
  - **Its already done: If General, move to head of queue’**

Value Delivery Cycle: Measure



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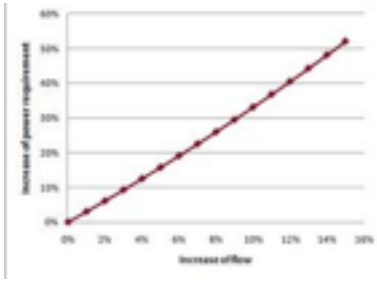
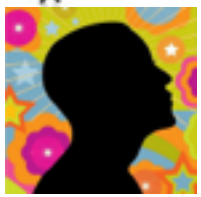
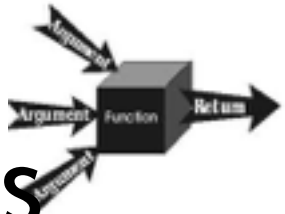
26

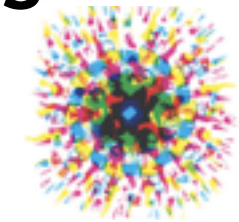
1 1 1 1 1 1
The ‘Unity Method’ of Decomposition by Value



- –1% increase at least
- –1 stakeholder
- –1 quality or value
- –1-week delivery cycle
- –1 function focus
- –1 design used







© Gilb.com

“I kill men for a living! (General Pellicci)

UNITED STATES ARMY PERSONNEL INFORMATION SYSTEMS COMMAND

CERTIFICATE of APPRECIATION

is awarded to

MR. TOM GILB

for

SELFLESS AND DEDICATED SERVICE IN SUPPORT OF THE PERSONNEL INFORMATION SYSTEMS COMMAND. AS A MANAGEMENT CONSULTANT IN RESULT DELIVERY PLANNING, HIS PATRIOTISM, PROFESSIONAL COMPETENCE AND PERSONAL SACRIFICES ARE HIGHLY COMMENDABLE. TOM GILB'S DEDICATION AND THE EXCEPTIONAL MANNER IN WHICH HE PERFORMED HIS DUTIES HAD A DIRECT AND SIGNIFICANT IMPACT ON PERSINSCOM'S MISSION. HIS OUTSTANDING CONTRIBUTIONS AND DISTINGUISHED SERVICE REFLECT GREAT CREDIT ON HIM AND THE UNITED STATES ARMY. CONGRATULATIONS FOR A JOB WELL DONE.

30 AUGUST 1991

Personnel Information Systems Command

JACK A. PELLICCI
Brigadier General, USA
Commanding

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 foc
they want, then by definition, *they* should like it. If you are not

10• Don't get so worried about "what might happen afterwards"
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*, whe
need it, you will be forgiven a lot of 'sins'!

13• You can understand things much better, by getting *some* pr
experience (and removing *some* of your fears).

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

15• When some cycles, like a purchase-order cycle, take a long time, initiate them 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

The Confirmit Case Study 2003-2013
Agile Quantified Value Delivery

See paper on this case at www.gilb.com
Papers/Cases/Slides, Gilb Library,

value slide w… http://www.gilb.com/tiki-download_file.php?fileId=152
ppr wrong ag… http://www.gilb.com/tiki-download_file.php?fileId=50
Paper Firm http://www.gilb.com/tiki-download_file.php?fileId=32
And see papers (IEEE Software Fall 2006) by Geir K Hanssen, SINTEF

Their product = confirmit

Chief Storyteller = Trond Johansen

Here are some of the Clients of the Confirmit Product in 2003heading

We gave them a 1 day briefing on our Evo method and Planguage

That's all they needed to succeed!

They were Real engineers

Shift: from
‘Function’ to ‘Stakeholder Quality’
(They never went back to the burn down stack)

- **“Our new focus is on the <u>day-to-day</u> operations of our Market Research users,**
  - **<u>not</u> a list of features that they might or might not like. 50%are never used!**
  - **We KNOW that increased efficiency, which leads to more profit, will please them.**
  - **The ‘45 minutes actually saved x thousands of customer reports’**
    - **= big $$$ saved**
- **After one week we had defined more or less all the requirements for t[illegible]t version (8.5) of Confirmit. “**
    - **Trond Johansen**

Trond Johansen

© Tom@Gilb.com [illegible]

EVO Plan Confirmit 8.5 in **Evo Step Impact *Measurement***

4 product areas were attacked in all: **25 Qualities** concurrently, one quarter of a year. Total development staff = 13

Impact Estimation Table: Reportal codename "Hyggen"

9

Current Status	Improvements		Reportal - E-SAT features		
Units	Units	%	Past	Tolerable	Goal
			Usability.Intuitivness (%)		
75,0	25,0	62,5	50	75	90
			Usability.Consistency.Visual (Elements)		
14,0	14,0	100,0	0	11	14
			Usability.Consistency.Interaction (Components)		
15,0	15,0	107,1	0	11	14
			Usability.Productivity (minutes)		
5,0	75,0	96,2	80	5	2
5,0	45,0	95,7	50	5	1
			Usability.Flexibility.OfflineReport.ExportFormats		
3,0	2,0	66,7	1	3	4
			Usability.Robustness (errors)		
1,0	22,0	95,7	7	1	0
			Usability.Replacability (nr of features)		
4,0	5,0	100,0	8	5	3
			Usability.ResponseTime.ExportRep[illegible] (min[illegible]es		
1,0	12,0	150,0	13	13	5
			Usability.ResponseTime.ViewRep[illegible] seco[illegible]s)		
1,0	14,0	100,0	15	[illegible]	1
			Development resources		
203,0			0		91

8

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	67	0	0
			Generate.WI.Time (small/medium/large seconds)		
4,0	59,0	100,0	63	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	1281	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	800	0	0
			Runtime.Concurrency (number of users)		
350,0	1110,0	146,7	150	500	1000
			Development resources		
64,0			0		84

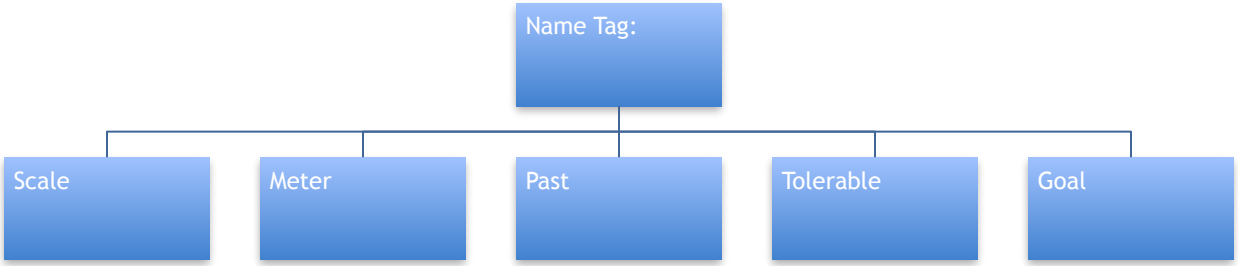
3

Current Status	Improvements		Reportal - MR Features		
Units	Units	%	Past	Tolerable	Goal
			Usability.Replacability (feature count)		
1,0	1,0	50,0	14	13	12
			Usability.Productivity (minutes)		
20,0	45,0	112,5	65	35	25
			Usability.ClientAcceptance (features count)		
4,4	4,4	36,7	0	4	12
			Development resources		
101,0			0		86

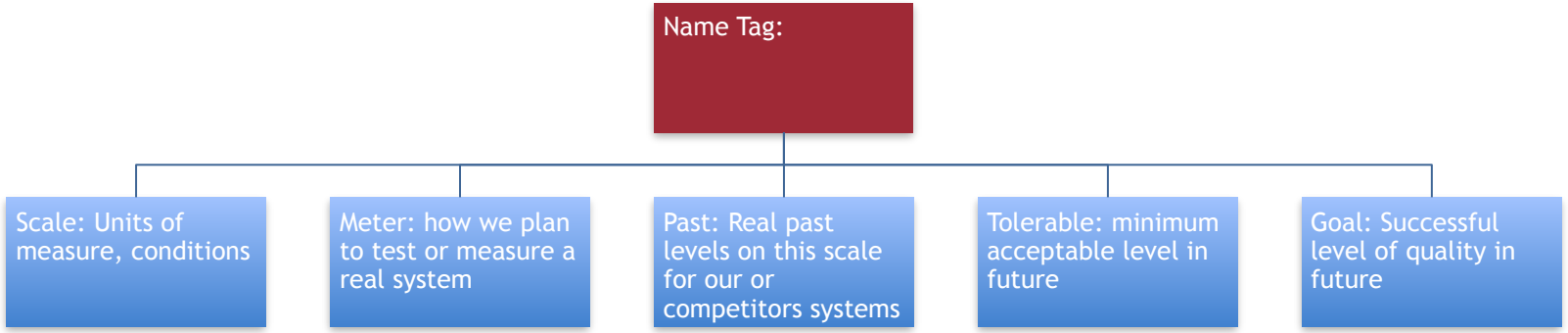
3

Current Status	Improvements		XML Web Services		
Units	Units	%	Past	Tolerable	Goal
			TransferDefinition.Usability.Efficiency		
7,0	9,0	81,8	16	10	5
17,0	8,0	53,3	25	15	10
			TransferDefinition.Usability.Response		
943,0	-186,0	######	170	60	30
			TransferDefinition.Usability.Intuitiveness		
5,0	10,0	95,2	15	7,5	4,5
			Development resources		
2,0			0		48

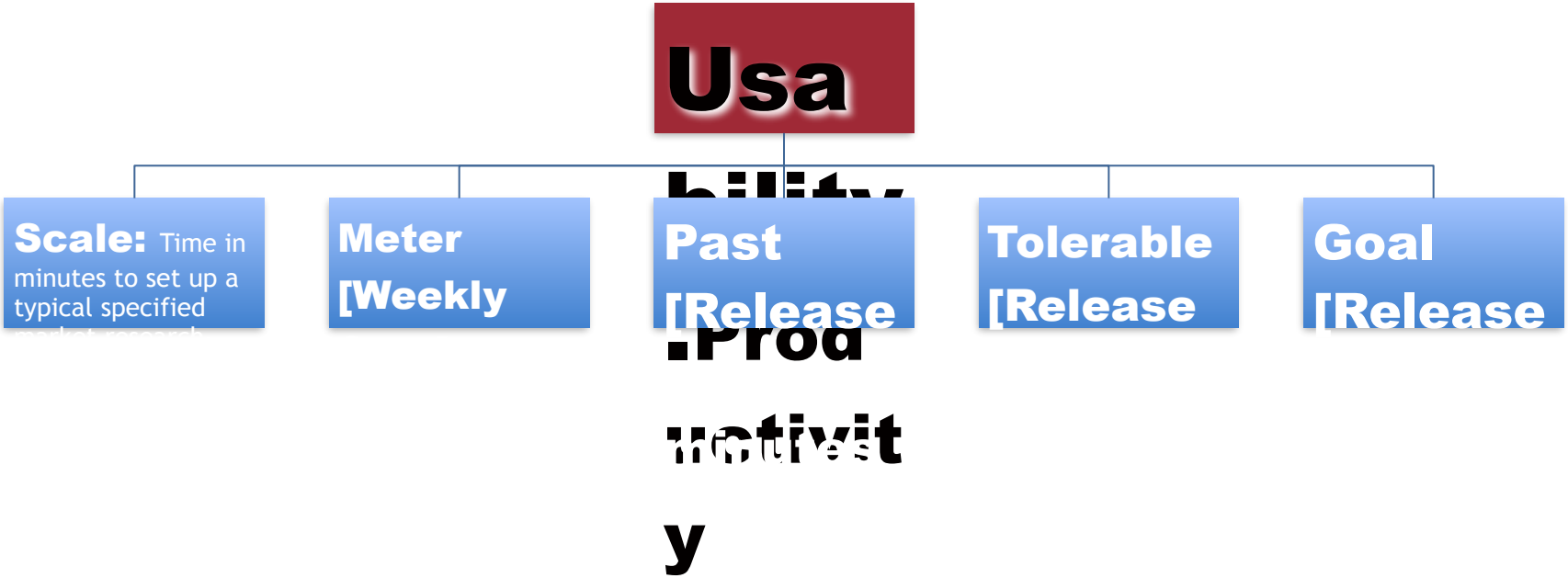
Each of the 25 Initial Quality Requirement has this ‘Planguage’ format



Each Quality Requirement has this 'Planguage' format: Meaning



Each Quality Requirement has this ‘Planguage’ format: Real Example



Real Example of 1 of the 25 Quality Requirements

Usability.Productivity (taken from Confirmit 8.5, performed a set of predefined steps, to produce a standard MR Report.

development)

<u>Scale for quantification</u>: Time in minutes to set up a typical specified Market Research-report

<u>Past Level [Release 8.0]</u>: 65 mins.,

<u>Tolerable Limit [Release 8.5]</u>: 35 mins.,

<u>Goal [Release 8.5]</u>: 25 mins.

Note: end result was actually 20 minutes ☺

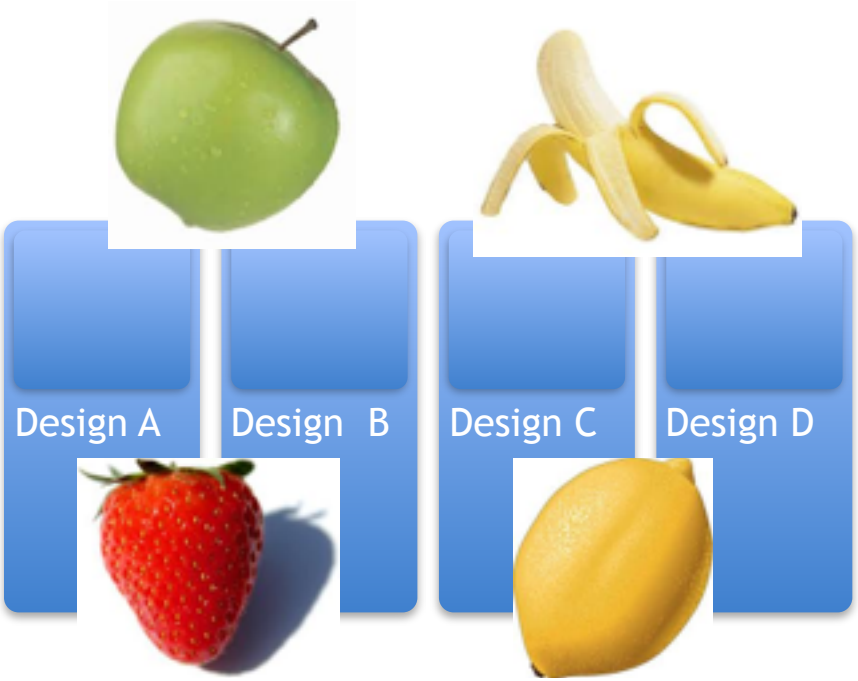
<u>Meter [Weekly Step]</u>: Candidates with Reportal experience, and with knowledge of MR-specific reporting features

Market Research & Feedback

Trond Johansen

Design Process

Design Suggestions

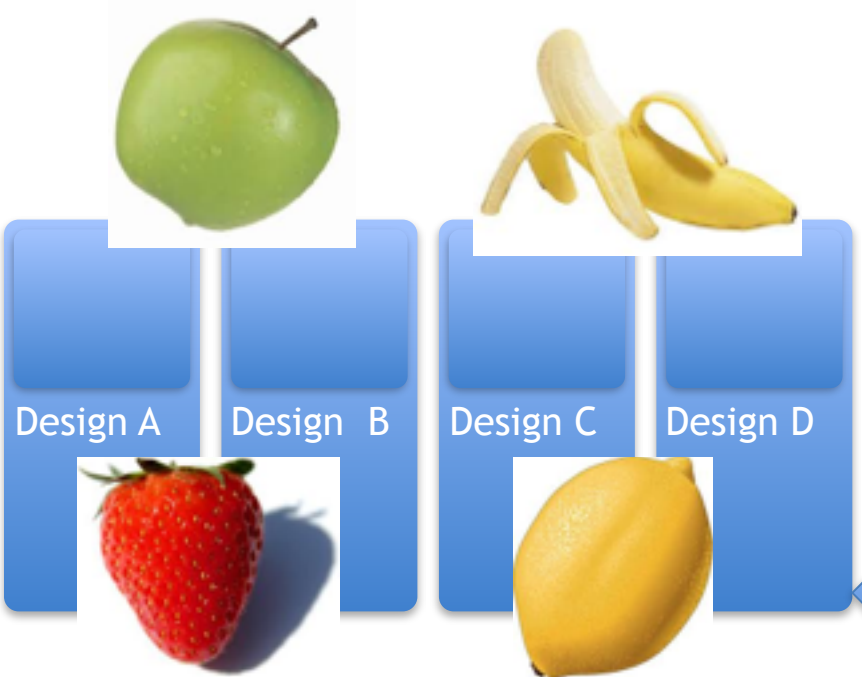


Impacts to Cost Evaluation

	A	B	C	D
Goal 1	30%	10%’	-10%	80%
Cost	10	50	1	20
G/C	3:1	1:5	?	4:1

Design Process: The winner

Design Suggestions



Impacts to Cost Evaluation

	A	B	C	D
Goal 1	30%	10%’	-10%	80%
Cost	10	50	1	20
G/C	3:1	1:5	?	4:1

Quantified Value Delivery Project Management in a Nutshell

Quantified Value Requirements, Design, Design Value/cost estimation, Measurement of Value Delivery, Incremental Project Progress to Date

	A	B	C	D	E	F	G	BX	BY	BZ	CA
1											
2		Current Status	Improvements		Goals			Step9			
3								Recoding			
4								Estimated impact		Actual impact	
5		Units	Units	%	Past	Tolerable	Goal	Units	%	Units	
6					Usability.Replacability (feature count)						
7		1,00	1,0	50,0	2	1	0				
8					Usability.Speed.NewFeaturesImpact (%)						
9		5,00	5,0	100,0	0	15	5				
10		10,00	10,0	200,0	0	15	5				
11		0,00	0,0	0,0	0	30	10				
12					Usability.Intuitiveness (%)						
13		0,00	0,0	0,0	0	60	80				
14					Usability.Productivity (minutes)						
19		20,00	45,0	112,5	65	35	25	20,00	50,00	38,00	95,00
20					Development resources						
21			101,0	91,8	0		110	4,00	3,64	4,00	3,64

Estimates

Weekly Testing

Priority Next week Warning metrics based

Cumulative weekly progress metric

Constraint

Target

Requirements

Past	Tolerable	Goal
Usability.Replacability (feature count)		
2	1	0
Usability.Speed.NewFeaturesImpact (%)		
0	15	5
0	15	5
0	30	10
Usability.Intuitiveness (%)		
0	60	80
Usability.Productivity (minutes)		
65	35	25
Development resources		
		110

Benchmark

Constraint

Target

Cycle Resource

Design Engineering

We estimate the 'design effect' at beginning of week

And measure the actual effect, at the end of the week

Step9			
Recoding			
Estimated impact		Actual impact	
Units	%	Units	%
20,00	50,00	38,00	95,00
Minutes	% way to Goal	Minutes	% way to Goal
4,00	3,64	4,00	3,64

Estimates

Weekly Meter/Test

Work days

% of Time to Release

Week 9 of 12 Before Release

Tag of a 'designi dea'

Tracking Progress: after each Evo value delivery cycle

Current Status	Improvements	
Units	Units	%
1,00	1,0	50,0
5,00	5,0	100,0
10,00	10,0	200,0
0,00	0,0	0,0
0,00	0,0	0,0
20,00	45,0	112,5
	101,0	91,8

<- 50% of way to Goal level

<- All the way to the goal

<- Twice the way to the Goal level

<- No progress from Past level

<- 12.5 % over

Computing Current Priority for next resources.

'Dynamic Prioritization'

Tolerable but not at Goal level

Not even Tolerable level Give this highest priority

No priority. You reached or exceeded Goal

Current Status	Improvements	
Units	Units	%
1,00	1,0	50,0
5,00	5,0	100,0
10,00	10,0	200,0
0,00	0,0	0,0
0,00	0,0	0,0
20,00	45,0	112,5
	101,0	91,8

Overview of Evo Project Management using 'Impact Estimation' table

	A	B	C	D	E	F	G	BX	BY	BZ	CA
1											
2		Current Status	Improvements		Goals			Step9			
3								Recoding			
4								Estimated impact		Actual impact	
5		Units	Units	%	Past	Tolerable	Goal	[illegible]	%	Units	[illegible]
6					Usability.Replacability (feature count)						
7		1,00	1,0	50,0	2	1	0				
8					Usability.Speed.NewFeaturesImpact (%)						
9		5,00	5,0	100,0	0	15	5				
10		10,00	10,0	200,0	0	15	5				
11		0,00	0,0	0,0	0	30	10				
12					Usability.Intuitiveness (%)						
13		0,00	0,0	0,0	0	60	80				
14					Usability.Productivity (minutes)						
19		20,00	45,0	112,5	65	35	25	20,00	50,00	38,00	95,00
20					Development resources						
21			101,0	91,8	0		110	4,00	3,64	4,00	3,64

Weekly Testing

Estimates

Priority Next week Warning metrics based

Cumulative weekly progress metric

Constraint

Target

Concurrent Quantified ‘Empowered Creativity’ *

* Empowered Creativity: Term coined by Trond Johansen, Confirmit, 2003

EVO Plan Confirmit 8.5 in **Evo Step Impact *Measurement***

4 product areas were attacked in all: **25 Qualities** concurrently, one quarter of a year. Total development staff = 13

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75,0	25,0	62,5	50	75	90
			Usability.Consistency.Visual (Elements)		
14,0	14,0	100,0	0	11	14
			Usability.Consistency.Interaction (Components)		
15,0	15,0	107,1	0	11	14
			Usability.Productivity (minutes)		
5,0	75,0	96,2	80	5	2
5,0	45,0	95,7	50	5	1
			Usability.Flexibility.OfflineReport.ExportFormats		
3,0	2,0	66,7	1	3	4
			Usability.Robustness (errors)		
1,0	22,0	95,7	7	1	0
			Usability.Replacability (nr of features)		
4,0	5,0	100,0	8	5	3
			Usability.ResponseTime.ExportRep[illegible] (min[illegible]es		
1,0	12,0	150,0	13	13	5
			Usability.ResponseTime.ViewRep[illegible] seco[illegible]s)		
1,0	14,0	100,0	15	[illegible]	1
			Development resources		
203,0			0		91

8

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	67	0	0
			Generate.WI.Time (small/medium/large seconds)		
4,0	59,0	100,0	63	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	1281	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	800	0	0
			Runtime.Concurrency (number of users)		
350,0	1110,0	146,7	150	500	1000
			Development resources		
64,0			0		84

3

Current Status	Improvements		Reportal - MR Features		
Units	Units	%	Past	Tolerable	Goal
			Usability.Replacability (feature count)		
1,0	1,0	50,0	14	13	12
			Usability.Productivity (minutes)		
20,0	45,0	112,5	65	35	25
			Usability.ClientAcceptance (features count)		
4,4	4,4	36,7	0	4	12
			Development resources		
101,0			0		86

3

Current Status	Improvements		XML Web Services		
Units	Units	%	Past	Tolerable	Goal
			TransferDefinition.Usability.Efficiency		
7,0	9,0	81,8	16	10	5
17,0	8,0	53,3	25	15	10
			TransferDefinition.Usability.Response		
943,0	-186,0	######	170	60	30
			TransferDefinition.Usability.Intuitiveness		
5,0	10,0	95,2	15	7,5	4,5
			Development resources		
2,0			0		48

Each Team is driven by Accepted Objectives

Treportal E-Sat Team Objectives for 12 weeks

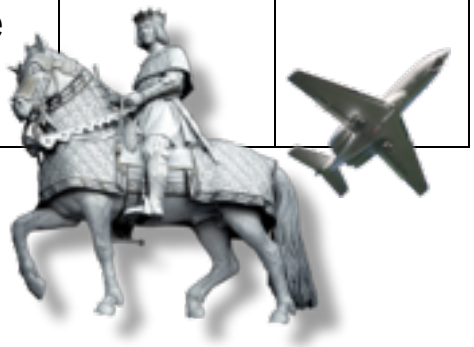
Confirmit Evo Weekly Value Delivery Cycle

	Development Team	Users (PMT, Pros, Doc writer, other)	CTO (Sys Arch, Process Mgr)	QA (Configuration Manager & Test Manager)
Friday	✓ PM: Send Version N detail plan to CTO + prior to Project Mgmt meeting ✓ PM: Attend Project Mgmt meeting: 12.00-15.00 ✓ Developers: Focus on genereal maintenance work, documentation.		✓ Approve/reject design & Step N ✓ Attend Project Mgmt meeting: 12-15	✓ Run final build and create setup for Version N-1. ✓ Install setup on test servers (external and internal) ✓ Perform initial crash test and then release Version N-1
Monday	✓ Develop test code & code for Version N	✓ Use Version N-1		✓ Follow up CI ✓ Review test plans, tests
Tuesday	✓ Develop Test Code & Code for Version N ✓ Meet with users to Discuss Action Taken Regarding Feedback From Version N-1	✓ Meet with developers to give Feedback and Discuss Action Taken from previous actions	✓ System Architect to review code and test code	✓ Follow up CI ✓ Review test plans, tests
Wednesday	✓ Develop test code & code for Version N			✓ Review test plans, tests ✓ Follow up CI
Thursday	✓ Complete Test Code & Code for Version N ✓ Complete GUI tests for Version N-2			✓ Review test plans, tests ✓ Follow up CI

Evo's impact on Confirmit product qualities 1st Qtr

- Only 5 highlights of the 25 impacts are listed here

Description of requirement/work task	Past	Status
Usability.Productivity: Time for the system to generate a survey	7200 sec	15 sec
Usability.Productivity: Time to set up a typical specified Market Research-report (MR)	65 min	20 min
Usability.Productivity: Time to grant a set of End-users access to a Report set and distribute report login info.	80 min	5 min
Usability.Intuitiveness: The time in minutes it takes a medium experienced programmer to define a complete and correct data transfer definition with Confirmit Web Services without any user documentation or any other aid	15 min	5 min
Performance.Runtime.Concurrency: Maximum number of simultaneous respondents executing a survey with a click rate of 20 sec and an response time<500 ms, given a defined [Survey-Complexity] and a defined [Server Configuration, Typical]	250 users	6000



confirmit®

Release 8.5

© Tom@Gilb.com Top10 Method

ACTUAL RESULTS IN SECOND 12 WEEKS OF USING THE NEW METHOD

Evo's impact on Confirmit 9.0 product qualities

Product quality	Description	Customer value
Intuitiveness	Probability that an inexperienced user can intuitively figure out how to set up a defined Simple Survey correctly.	Probability increased by 175%
Productivity	Time in minutes for a defined advanced user, with full knowledge of 9.0 functionality, to set up a defined advanced survey correctly.	Time reduced by **38%**

Product quality	Description	Customer value
Productivity	Time (in minutes) to test a defined survey and identify 4 inserted script errors, starting from when the questionnaire is finished to the time testing is complete and is ready for production. (Defined Survey: Complex survey, 60 questions, comprehensive JScripting.)	Time reduced by **83%** and error tracking increased by 25%

MORE ACTUAL RESULTS IN SECOND 12 WEEKS OF USING THE NEW METHOD

Evo's impact on Confirmit 9.0 product qualities

Product quality	Description	Customer value
Performance	Max number of panelists that the system can support without exceeding a defined time for the defined task, with all components of the panel system performing acceptable.	Number of panelists increased by **1500%**
Scalability	Ability to accomplish a bulk-update of X panelists within a timeframe of Z sec.	Number of panelists increased by **700%**
Performance	Number of responses a database can contain if the generation of a defined table should be run in 5 seconds.	Number of responses increased by **1400%**

Code quality – ”green” week, 2005
“Refactoring by Proactive Design Engineering!”

- **In these ”green” weeks, some of the deliverables will be less visible for the end users, but more visible for our QA department.**
- **We manage code quality through an Impact Estimation table**

Current Status		Improvement	Goals			Step 6 (week 14)		Step 7 (wee
	Units		Past	Tolerable	Goal	Estimated Impact	Actual Impact	Estimated Impact
	100,0	100,0	0	80	100			100
Speed								
	100,0	100,0	0	80	100	100	100	
Maintainability.Doc.Code								
	100,0	100,0	0	80	100	100	100	
InterviewerConsole								
NUnitTests								
	0,0	0,0	0	90	100			
PeerTests								
	100,0	100,0	0	90	100			100
FxCop								
	0,0	10,0	10	0	0			
TestDirectorTests								
	100,0	100,0	0	90	100			100
Robustness.Correctness								
	2,0	2,0	0	1	2	2	2	
Robustness.BoundaryConditions								
	0,0	0,0	0					
Speed								
	0,0	0,0	0					
ResourceUsage.CPU								
	100,0	0,0	100					
Maintainability.Doc.Code								
	100,0	100,0	0					
SynchronizationStatus								
NUnitTests								

Speed

Maintainability

Nunit Tests

PeerTests

TestDirectorTests

Robustness.Correctness

Robustness.Boundary Conditions

ResourceUsage.CPU

Maintainability.DocCode

SynchronizationStatus

The Monthly ‘Green Week’

User
Week 1
- Select a Goal
- Brainstorm Designs
- Estimate Design Impact

User
Week 2
- Select a Goal
- Brainstorm Designs
- Estimate Design Impact

User
Week 3
- Select a Goal
- Brainstorm Designs
- Estimate Design Impact

Developer
Week 4
- **Select a Goal**
- **Brainstorm Designs**
- **Estimate Design Impact/**

Detailed Syllabus: Metrics for a bank

Day 1
Quantify Requirements

1. **Overview**: Evo & Planguage in relation to Agile Methods

2. practical **examples** of Planguage for requirements (case studies)

3. the various requirements **concepts** defined deeply and exemplified

4. requirements **templates** (to make standards practical) design constraint templates (a type of required design or architecture)

5. how to **quantify** any qualitative requirement (like intuitiveness or adaptability or security) – this is the key ability that most all other 'requirements' workshops do not teach!

6. **advanced** scale of measure specification methods (a 'scale' is more than units)

Day 2
Standards, Principles, Risks

1. Tips for **analyzing** project plans to find the 'real' value requirements.

2. **standards** for requirements (rules, processes, templates, glossary)

3. **principles** for requirements (help you to tackle new problems better)

4. **quality control** of requirements: measuring requirement conformance to standards (reviews, inspections, agile reviews)

5. how to give information that determines **priorities** of requirements (example Wish/ Goal/Fail and Qualifiers)

6. how to include requirement information about **risks and uncertainties**

Day 3
Design, Delivery, Culture Change

1. **estimating** the quantified impact of a **design** on requirements

2. evolutionary project management and how it integrates with requirements. The **Evo cycle** and how it relates to Agile iteration.

3. **training** requirements writers: how to train colleagues and yourself

4. changing requirements **culture**: how to change your culture of requirements

5. expected **results** from requirements culture improvement: how to measure or know that things are working well

6. a **policy** for improved requirements: summary of main guidelines for value driven projects, and value requirements.

Requirements Course Outline http://www.gilb.com/dl522

ONE PAGE PROJECT REQUIREMENTS QUANTIFIED

Operational-Control:

Scale: % of trades per day, where the calculated economic difference between OUR CO and Marketplace/ Clients, is less than "1 Yen"(or equivalent).

Past [April 20xx] **10%**
Goal [Dec. 20xy] **100%**

guided by
Quantified Goal sets,
the need to **estimate ,** give **evidence,**
state **uncertainty** and assign **credibility.**
All culminating in decision documentation
which is auditable reviewable. Improvable and transparent!

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 character
Barclays(for overview)

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

Gist: risk and P/L aggregation service, which also provides wo
outbound and inbound feed support. Currently used by Rates
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 imple
which allows the data to be onboarded more quickly.
very quickly. With minimal development required. ->
Market, Business Scalability

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

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

D4: a flexible configurable workflow tool, which can
workflow processes -> Books/Records Consistency, Business Process Effectiveness,
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.

========== **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.

Consequence: FCxx must be a part of the impact estimation and costs rating.

evelopment costs will not be different. All will base on a
mm and 3 years. The o+

slightly, like $n mm for hardware. MA AH 3 dec

ntinue to own Orbit. TSG DEC 2

, 3 years, will constrained to a scope we can in fact deliver,
en additional budget. If not "I would have a problem" <- BB

xpanding Orbit will not be prohibitive. <- BB 2 dec

e the assumption that we can integrate Oribit with PX+ in a
n in the short term <- BB

dependencies for this design idea>.

s Px+ in time. ? tsg 2.12

ags of any factors, which could threaten your estimated

ed. Mitigation: continue to use Pxx <- tsg 2.12

integration of Px+ is not as easy as thought & we must

alability and cost of **coherence** will not allow us to meet the

Orbit 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

Spec Headers

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 (PUBLIC EXAMPLE EDIT)

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.

Detailed Description and -> Impacted Objectives

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 BO
Consistency, Risk & P/

D4: a flexible configur
new workflow processe
Effectiveness, Busines

D5: a report definition
contained with Orbit,
with minimal regressio
Explanation, Risk & P/
Business Scalability.

D6: Orbit GUI. Utilizes
Dxx Express Grid Contr
Capability. -> Responsi
Risk & P/L Understand

D7: downstream feeds
which is used to gener
Capability Time to Mar

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

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Design Spec Enlarged 2 of 2

==== Priority & Risk Management =======

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

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

Consequence: FCx impact estimation

A2: **Costs**, the developm different. All will base o and 3 years. The ops cos mm for hardware. MA AH

A3:Boss X will continue t

A4: the schedule, 3 year we can in fact deliver, O budget. If not "I would h

A5: the cost of expanding Orbit will not be prohibitive. <- 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 a*

D1: FCxx replaces Px+ in time. ? tsg 2.12

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 refer to tags of any factors, which could threaten your estimated impacts>*.

R1. FCxx is delaye tsg 2.12

R2: the technical thought & we mus

R3: the and or sca allow us to meet t

R4: **scalability** of year especially <-

R5: re Cross Desk on technical desig no solution allowi

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 t the objectives (Owners a huge differentiator. D

I2: what are the time s now BB

I3: what will the succes what we are actually be

I4: for the business othe a lack of clarity as to w how they might differ f

I5: the degree to which useful without Intra Day. BB 2 dec

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

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Actual Example
deciding between
5 systems
(named a, b ,c, d, e)

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Impact Estimation Tables

Improvement

Value Requirements			Operating Model Consistency	
Status when	Tolerable when	Goal when	units	% of Goal
P&L-Consistency&T P&L			-20	**44%**
60	0	15	-10	22%
0	0	0	0.1	4%
Speed-To-Deliver			-20	**29%**
75	30	5	-7	10%
0	0	0	0.1	3%
Operational-Control.Accurate			5	**50%**
90	99	100	5	50%
0	0	0	0.1	5%
Operational-Control.Consistent			1	**50%**
97	0	99	0.2	10%
0	0	0	0.2	10%
Operational-Control.Timely.End&Overnigh			-1	**200%**
1	1	0.5	-0.5	100%
0	0	0	0.2	40%
Operational-Control.Timely.IntradayP&L				
1	2	3		
0	0	0		
Operational-Control.Timely.Trade-Booking			-15	**75%**

Estimate Units & %

± Uncertainty Worst Case range

Credibility Adjustment 0.0 to 1.0

Based on tool built by Kai Gilb

© Gilb.com

Value Requirement Name	Ambition
Timeliness	Consistently meet timeliness SLAs for the daily business process. E. g. Availability of SOD risk

P/L Accuracy

Version 29.11.10 00

Type:

Quality

Owner: *Sam O'Neill*

Stakeho Front Office, Middle Office, Senior Management, Product Control, Financial Control, Internal Audit, Regulators

Ambitio *Minimize the $ value of errors in P/L*

Scale: **average number of days per year that daily P/L is incorrect due the [System], for defined [Scope]**

		Day & Time	*Conditions (Place, Defined, Stakeholder, etc.)*	*]*	*number*
Past	[at	2010	, Scope = EMEA Flow Options, System=Option e	]	14
Status	[at	2010	, Scope = EMEA Flow Options, System=Option e	]	**14**
Tolerable	[by	2014 - jan	, Scope = EMEA Flow Options, System=TBD	]	**7**
Goal	[by	2014 - jan	, Scope = EMEA Flow Options, System=TBD	]	**0**

eir risk

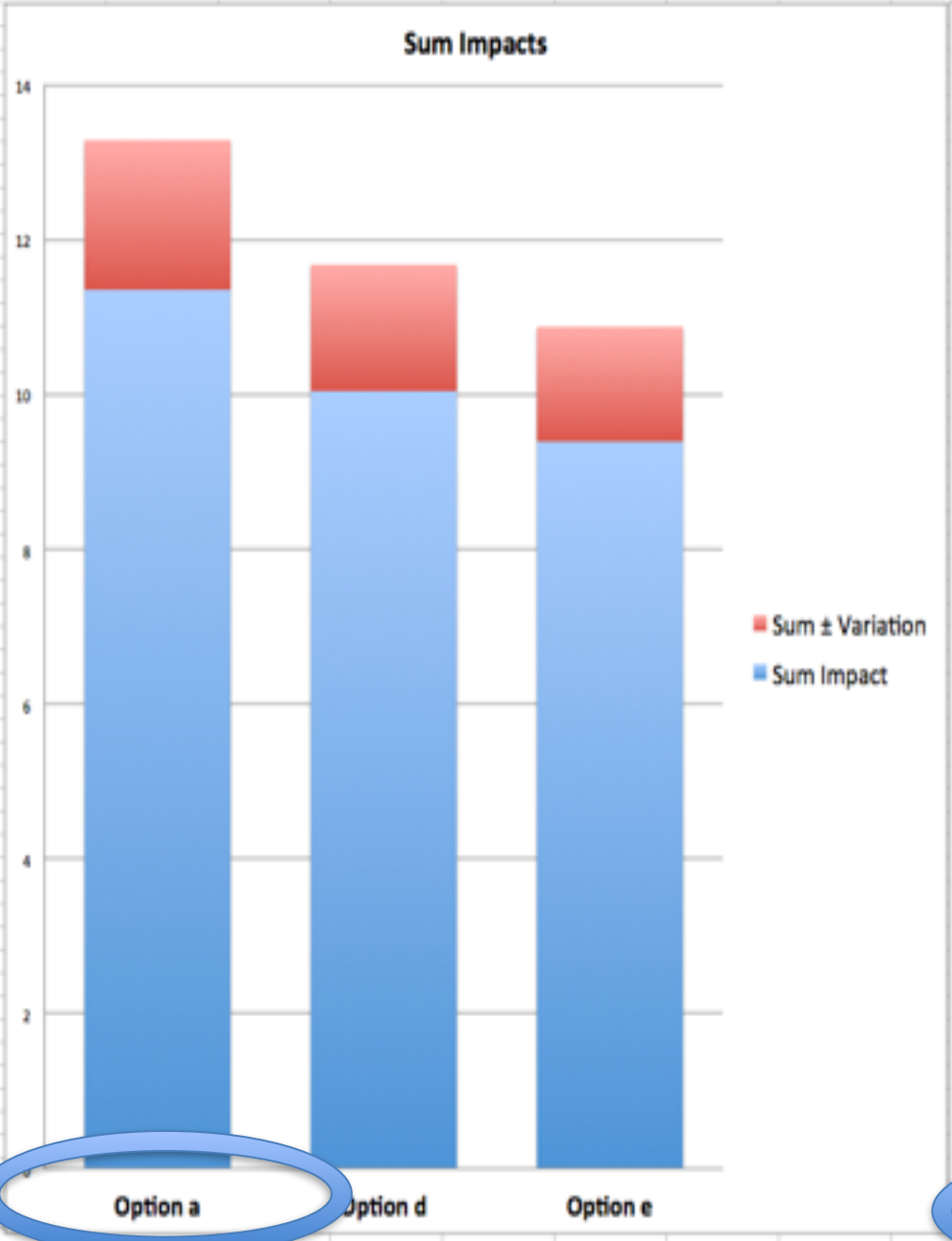
Business-Capability-Time-To-Market	Reduce time to market for delivery of new business capability
#Business Scalability**	Scale seamlessly to support business growth
#Robustness**	Ensure robust support for the business process
System Availability	Reduce non-availability to minimum
Responsiveness	Optimize system performance in response to user requests
Access Security	maintain strong control over risk and P/L integrity
#Successful System-Delivery Confidence*	Low risk of delivery execution failing in any respect compared to expectations

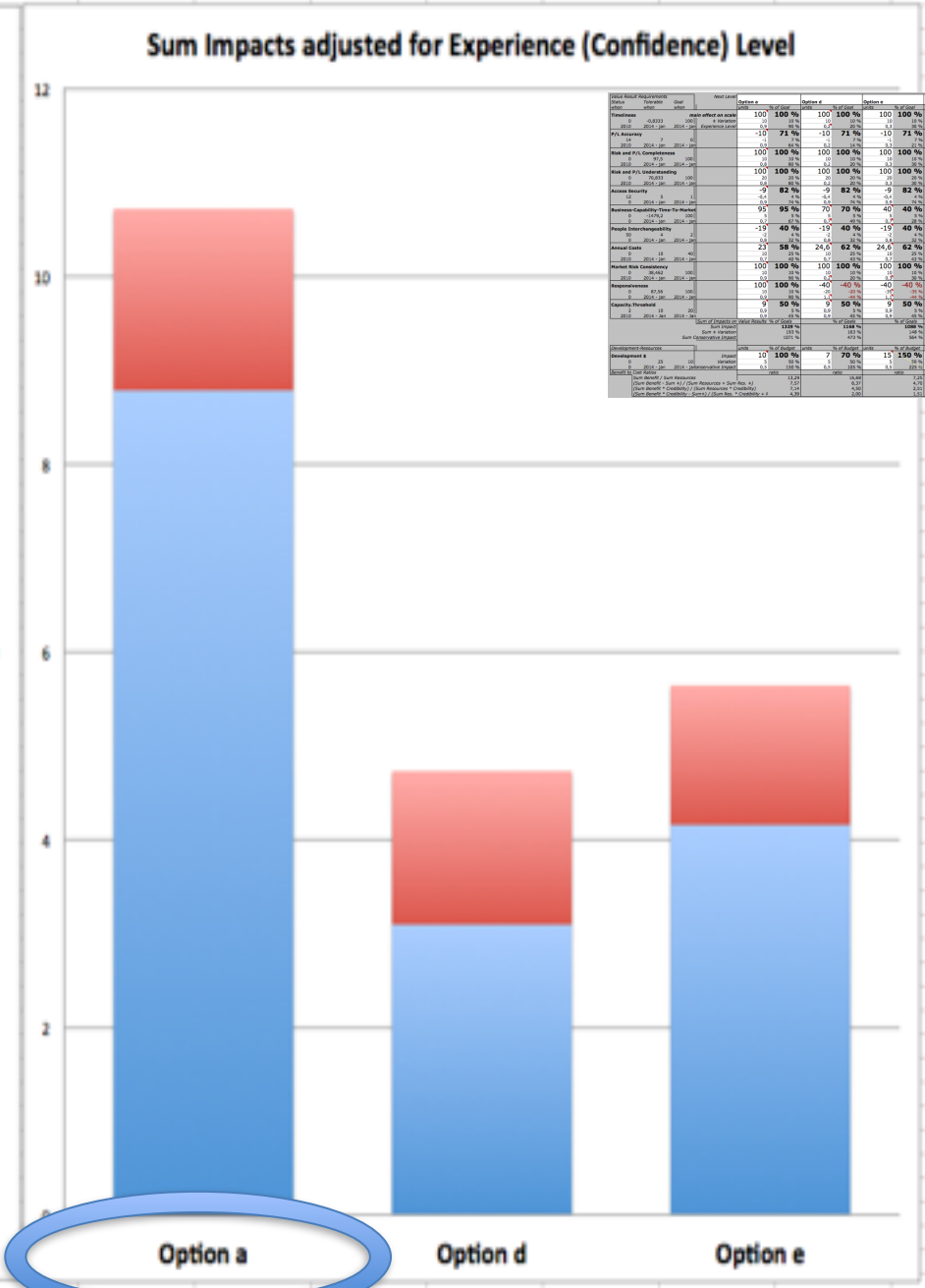
Value Result Requirements Status when	Tolerable when	Goal when	Next Le	Option a units	% of G	Option d units	% of Goal	Option e units	% of Goal
Timeliness			*main effect on scale*	100	**100 %**	100	**100 %**	100	**100 %**
0	-0,8333	100	± Variation	10	10 %	10	10 %	10	10 %
[illegible]	[illegible]	2014 - jan	Experience Level	0,9	90 %	0,2	20 %	0,3	30 %
P/L Accuracy				-10	**71 %**	-10	**71 %**	-10	**71 %**
14	7	0		-1	7 %	-1	7 %	-1	7 %
2010	2014 - jan	2014 - jan		0,9	64 %	0,2	14 %	0,3	21 %
Risk and P/L Completeness				100	**100 %**	100	**100 %**	100	**100 %**
0	97,5	100		10	10 %	10	10 %	10	10 %
2010	2014 - jan	2014 - jan		0,8	80 %	0,2	20 %	0,3	30 %
Risk and P/L Understanding				100	**100 %**	100	**100 %**	100	**100 %**
0	70,833	100		20	20 %	20	20 %	20	20 %
2010	2014 - jan	2014 - jan		0,8	80 %	0,2	20 %	0,3	30 %
Access Security				-9	**82 %**	-9	**82 %**	-9	**82 %**
12	5	1		-0,4	4 %	-0,4	4 %	-0,4	4 %
0	2014 - jan	2014 - jan		0,9	74 %	0,9	74 %	0,9	74 %
Business-Capability-Time-To-Market				95	**95 %**	70	**70 %**	40	**40 %**
0	-1479,2	100		5	5 %	5	5 %	5	5 %
0	2014 - jan	2014 - jan		0,7	67 %	0,7	49 %	0,7	28 %
People Interchangeability				-19	**40 %**	-19	**40 %**	-19	**40 %**
50	4	2		-2	4 %	-2	4 %	-2	4 %
0	2014 - jan	2014 - jan		0,8	32 %	0,8	32 %	0,8	32 %
Annual Costs				23	**58 %**	24,6	**62 %**	24,6	**62 %**
0	10	40		10	25 %	10	25 %	10	25 %
2010	2014 - jan	2014 - jan		0,7	40 %	0,7	43 %	0,7	43 %
Market Risk Consistency				100	**100 %**	100	**100 %**	100	**100 %**
0	38,462	100		10	10 %	10	10 %	10	10 %
2010	2014 - jan	2014 - jan		0,9	90 %	0,2	20 %	0,3	30 %
Responsiveness				100	**100 %**	-40	**-40 %**	-40	**-40 %**
0	87,56	100		10	10 %	-20	-20 %	-35	-35 %
0	2014 - jan	2014 - jan		0,9	90 %	1,1	-44 %	1,1	-44 %
Capacity.Threshold				9	**50 %**	9	**50 %**	9	**50 %**
2	10	20		0,9	5 %	0,9	5 %	0,9	5 %
2010	2014 - Jan	2014 - Jan		0,9	45 %	0,9	45 %	0,9	45 %
			Sum of Impacts on Value Results		*% of Goals*		*% of Goals*		*% of Goals*
			Sum Impact		**1329 %**		**1168 %**		**1088 %**
			Sum ± Variation		193 %		163 %		148 %
			Sum Conservative Impact		1071 %		473 %		564 %
Development-Resources				*units*	*% of Budget*	*units*	*% of Budget*	*units*	*% of Budget*
Development $			*Impact*	10	**100 %**	7	**70 %**	15	**150 %**
0	25	10	*Variation*	5	50 %	5	50 %	5	50 %
0	2014 - jan	2014 - jan	*onservative Impact*	0,5	150 %	0,5	105 %	0,5	225 %
Benefit to Cost Ratios					*ratio*		*ratio*		*ratio*
			Sum Benefit / Sum Resources		13,29		16,68		7,25
			(Sum Benefit - Sum ±) / (Sum Resources + Sum Res. ±)		7,57		8,37		4,70
			*(Sum Benefit * Credibility) / (Sum Resources * Credibility)*		7,14		4,50		2,51
			*(Sum Benefit * Credibility - Sum±) / (Sum Res. * Credibility + F*		4,39		2,00		1,51

Value Result Requirements	Status when	Tolerable when	Goal when	Next Le	Option a		Option d		Option e	
					units	% of G	units	% of Goal	units	% of Goal
Timeliness				*main effect on scale*	100	**100 %**	100	**100 %**	100	**100 %**
	0	-0,8333	100	± Variation	10	10 %	10	10 %	10	10 %
		jan	2014 - jan	Experience Level	0,9	90 %	0,2	20 %	0,3	30 %
P/L Accuracy	14	7	0		-10	**71 %**	-10	**71 %**	-10	**71 %**
	2010	2014	jan		-1	7 %	-1	7 %	-1	7 %
			2014 - jan		0,9	64 %	0,2	14 %	0,3	21 %
Risk and P/L Completeness	0	97,5	100		100	**100 %**	100	**100 %**	100	**100 %**
	2010	2014 - jan	2014 -		10	10 %	10	10 %	10	10 %
Risk and P/L Understanding	0	70,833	10							
	2010	2014 - jan	2014 -							
Access Security	12	5								
	0	2014 - jan	2014 -							
Business-Capability-Time-To-Mari	0	-1479,2	10							
	0	2014 - jan	2014 -							
People Interchangeability	50	4								
	0	2014 - jan	2014 -							
Annual Costs	0	10	4							
	2010	2014 - jan	2014 -							
Market Risk Consistency	0	38,462	10							
	2010	2014 - jan	2014 -							
Responsiveness	0	87,56	10							
	0	2014 - jan	2014 -							
Capacity.Threshold	2	10	2							
	2010	2014 - Jan	2014 - Jan		0,9	45 %	0,9	45 %	0,9	45 %
				Sum of Impacts on Value Results		% of Goals		% of Goals		% of Goals
				Sum Impact		**1329 %**		**1168 %**		**1088 %**
				Sum ± Variation		193 %		163 %		148 %
				Sum Conservative Impact		1071 %		473 %		564 %
Development-Resources					units	% of Budget	units	% of Budget	units	% of Budget
Development $				*Impact*	10	**100 %**	7	**70 %**	15	**150 %**
	0	25	10	*Variation*	5	50 %	5	50 %	5	50 %
	0	2014 - jan	2014 - jan	*onservative Impact*	0,5	150 %	0,5	105 %	0,5	225 %
Benefit to Cost Ratios						*ratio*		*ratio*		*ratio*
				Sum Benefit / Sum Resources		13,29		16,68		7,25
				(Sum Benefit - Sum ±) / (Sum Resources + Sum Res. ±)		7,57		8,37		4,70
				*(Sum Benefit * Credibility) / (Sum Resources * Credibility)*		7,14		4,50		2,51
				*(Sum Benefit * Credibility - Sum±) / (Sum Res. * Credibility + R*		4,39		2,00		1,51

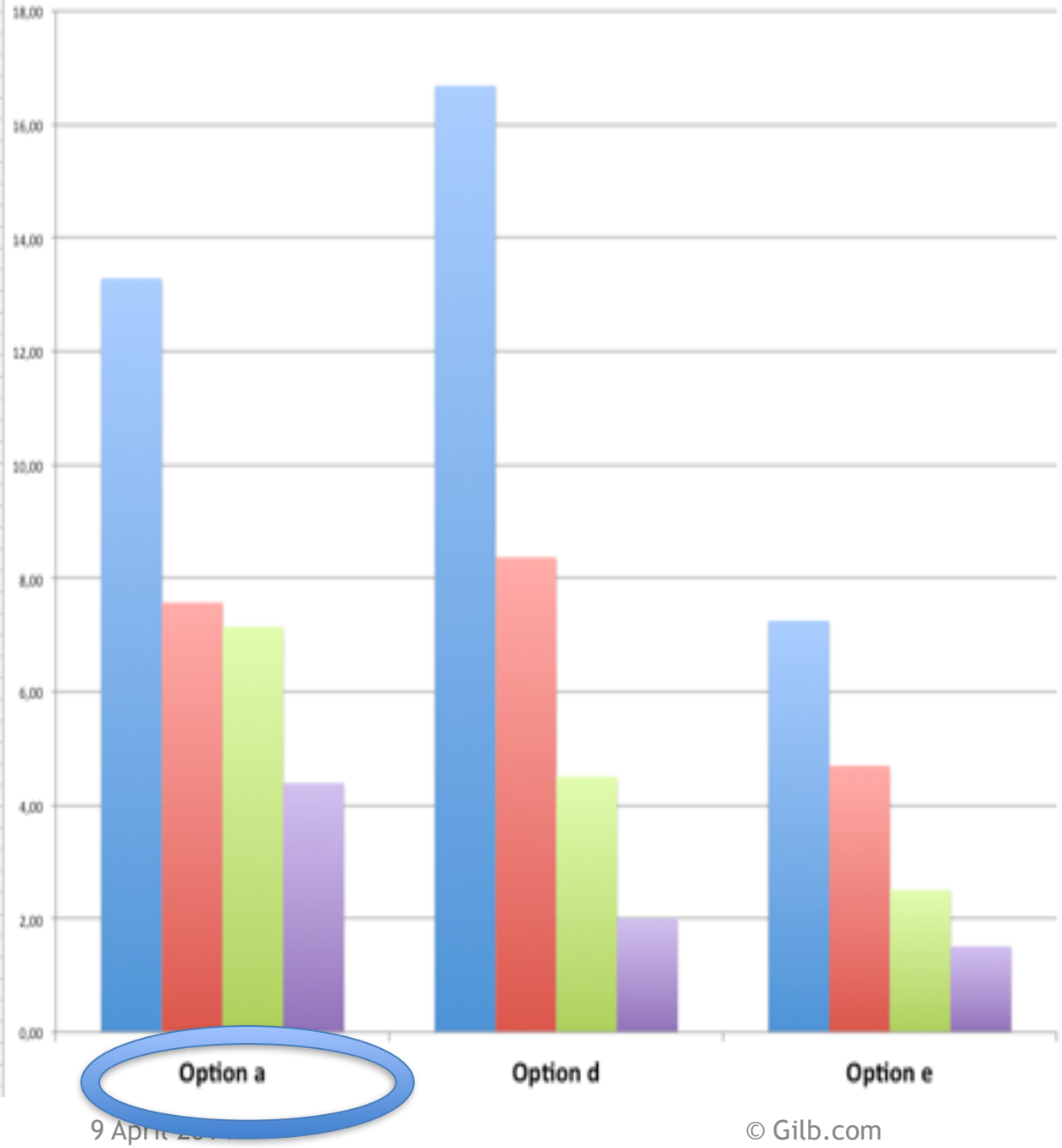
Kai's Excel Tool (modelling architecture decisions)

1. **Integration of Bank Values and Architecture Options**
2. **Evaluation, which one is 'best' ?**
3. **Best can be (anything you like!), but mainly**
   1. **Best for delivering all values in general (∑ V), 'Effectiveness' or**
   2. **(Better in long term) Best at delivering Bank Value for Resources used to do so (the 'efficiency' (∑V / ∑€)**





Value Assist Requirements				Need Level	Option a		Option d		Option e	
Status	Tolerable	Goal			units	% of Goal	units	% of Goal	units	% of Goal
after	after	after								
Timeliness				main effect on scale	100	**100 %**	100	**100 %**	100	**100 %**
0	0,8333	100		+ iteration	0,0	0 %	0,0	0 %	0,0	0 %
2010	2014 - jan	2014 - jan		Experience Level	0,0	0 %	0,0	0 %	0,0	0 %
P/L Accuracy					-10	**71 %**	-10	**71 %**	-10	**71 %**
14	4	1			0,5	7 %	0,5	7 %	0,5	7 %
2010	2014 - jan	2014 - jan			0,5	64 %	0,5	64 %	0,5	64 %
Risk and P/L Completeness					100	**100 %**	100	**100 %**	100	**100 %**
0	97,5	100			10	10 %	10	10 %	10	10 %
2010	2014 - jan	2014 - jan			0,4	35 %	0,2	20 %	0,3	30 %
Risk and P/L Understanding					100	**100 %**	100	**100 %**	100	**100 %**
0	70,833	100			20	20 %	20	20 %	20	20 %
2010	2014 - jan	2014 - jan			0,6	61 %	0,3	30 %	0,3	30 %
Access Security					-9	**82 %**	-9	**82 %**	-9	**82 %**
12	1	1			-0,4	4 %	-0,4	4 %	-0,4	4 %
0	2014 - jan	2014 - jan			0,3	29 %	0,3	29 %	0,3	29 %
Business-Capability/Time-To-Market					95	**95 %**	70	**70 %**	40	**40 %**
0	0	1			0,2	67 %	0,1	45 %	0,1	35 %
0	2014 - jan	2014 - jan								
People Interchangeability					-19	**40 %**	-19	**40 %**	-19	**40 %**
50	4	2			-1	4 %	-1	4 %	-1	4 %
0	2014 - jan	2014 - jan			0,4	13 %	0,4	13 %	0,4	13 %
Annual Costs					23	**58 %**	24,6	**62 %**	24,6	**62 %**
0	18	40			10	25 %	10	25 %	10	25 %
2010	2014 - jan	2014 - jan			0,7	48 %	0,7	48 %	0,7	48 %
Market Risk Consistency					100	**100 %**	100	**100 %**	100	**100 %**
0	96,442	100			10	10 %	10	10 %	10	10 %
2010	2014 - jan	2014 - jan			0,4	35 %	0,4	35 %	0,4	35 %
Responsiveness					100	**100 %**	-40	**-40 %**	-40	**-40 %**
0	87,94	100			10	10 %	-10	-10 %	-10	-10 %
0	2014 - jan	2014 - jan			0,1	16 %	-0,4	-40 %	-0,4	-40 %
Capacity Threshold					9	**50 %**	9	**50 %**	9	**50 %**
0	18	20			0,9	5 %	0,9	5 %	0,9	5 %
2010	2014 - jan	2014 - jan			0,9	45 %	0,9	45 %	0,9	45 %
				Sum of Impacts on Value Benefit		% of Goals		% of Goals		% of Goals
				Sum ± Variation		1269 %		1148 %		1048 %
				Sum + Variation		193 %		185 %		148 %
				Sum Conservative Impact		1071 %		473 %		664 %
Development-Resources					units	% of Budget	units	% of Budget	units	% of Budget
Development $				Impact	10	**100 %**	7	**70 %**	15	**150 %**
0	20	10		Variation	5	50 %	5	50 %	5	50 %
2010	2014 - jan	2014 - jan		Conservative Impact	5	155 %	0,2	155 %	5,1	255 %
Benefit to Cost Ratios					ratio		ratio		ratio	
	Sum Benefit / Sum Resources					13,29		16,88		7,25
	(Sum Benefit - Sum +/-) / (Sum Resources + Sum Res. +/-)					7,57		8,37		4,70
	(Sum Benefit * Credibility) / (Sum Resources * Credibility)					7,14		4,90		2,61
	(Sum Benefit * Credibility - Sum+/-) / (Sum Res. * Credibility + +)					4,39		2,00		1,11



Value Result Requirements			Next Level	Option a		Option d		Option e	
Status	Tolerable when	Goal when		units	% of Goal	units	% of Goal	units	% of Goal
Timeliness			*main effect on scale*	100	**100 %**	100	**100 %**	100	**100 %**
0	0,9333	100	*+ Variation*	10	10 %	10	10 %	10	10 %
2010	2014 - jan	2014 - jan	*Experiential Level*	3,1	31 %	3,1	31 %	3,1	31 %
P/L Accuracy				-10	**71 %**	-10	**71 %**	-10	**71 %**
-14	2	2		1	7 %	1	7 %	1	7 %
2010	2014 - jan	2014 - jan		6,5	46 %	6,5	46 %	6,5	46 %
Risk and P/L Completeness				100	**100 %**	100	**100 %**	100	**100 %**
0	97,5	100		10	10 %	10	10 %	10	10 %
2010	2014 - jan	2014 - jan		3,4	34 %	8,2	20 %	3,2	32 %
Risk and P/L Understanding				100	**100 %**	100	**100 %**	100	**100 %**
0	70,833	100		20	20 %	20	20 %	20	20 %
2010	2014 - jan	2014 - jan		6,6	66 %	13	33 %	6,6	66 %
Access Security				-9	**82 %**	-9	**82 %**	-9	**82 %**
12	4	0		-0,4	4 %	-0,4	4 %	-0,4	4 %
0	2014 - jan	2014 - jan		8,2	82 %	8,2	82 %	8,2	82 %
Business-Capability-Time-To-Market				95	**95 %**	70	**70 %**	40	**40 %**
0	0,5	2		5	5 %	5	5 %	5	5 %
0	2014 - jan	2014 - jan		9,7	97 %	4,7	47 %	2,7	28 %
People Interchangeability				-19	**40 %**	-19	**40 %**	-19	**40 %**
30	4	0		-2	4 %	-2	4 %	-2	4 %
0	2014 - jan	2014 - jan		5,5	55 %	5,5	55 %	5,5	55 %
Annual Costs				23	**58 %**	24,6	**62 %**	24,6	**62 %**
0	10	40		10	25 %	10	25 %	10	25 %
2010	2014 - jan	2014 - jan		23,5	58 %	24,6	62 %	24,6	62 %
Market Risk Consistency				100	**100 %**	100	**100 %**	100	**100 %**
0	38,462	100		10	10 %	10	10 %	10	10 %
2010	2014 - jan	2014 - jan		3,8	38 %	3,8	38 %	3,8	38 %
Responsiveness				100	**100 %**	-40	**-40 %**	-40	**-40 %**
0	67,56	100		-10	10 %	-10	-10 %	-10	-10 %
0	2014 - jan	2014 - jan		6,8	68 %	1,8	18 %	1,8	18 %
Capacity Threshold				0	**50 %**	0	**50 %**	0	**50 %**
2	10	20		0,4	5 %	0,4	5 %	0,4	5 %
2010	2014 - jan	2014 - jan		0,5	45 %	0,5	45 %	0,5	45 %
			Sum of Impacts on Value Results		% of Goals		% of Goals		% of Goals
			Sum Impact		**110 %**		**110 %**		**110 %**
			Sum ± Variation		193 %		183 %		248 %
			Sum Conservative Impact		101 %		473 %		584 %
Development-Resources				units	% of Goals	units	% of Goals	units	% of Goals
Development $			*Impact*	10	**100 %**	7	**70 %**	15	**150 %**
0	10	10	*Variation*	5	50 %	3	30 %	5	50 %
2010	2014 - jan	2014 - jan	*conservative Impact*	6,1	61 %	6,1	161 %	1	225 %
Benefit vs. Cost Ratios					ratio		ratio		ratio
	Sum Benefit / Sum Resources				13,29		16,68		7,25
	(Sum Benefit - Sum +/-) / (Sum Resources + Sum Res. +/-)				7,57		6,27		4,79
	*(Sum Benefit * Credibility) / (Sum Resources * Credibility)*				8,29		8,68		2,61
	*(Sum Benefit * Credibility - Sum+/-) / (Sum Res. * Credibility + +/-*				4,39		3,00		1,01

Sum Benefit / Sum Resources

(Sum Benefit - Sum ±) / (Sum Resources + Sum Res. ±)

(Sum Benefit * Credibility) / (Sum Resources * Credibility)

(Sum Benefit * Credibility - Sum±) / (Sum Res. * Credibility + Res.±)

A City Bank Compliance Project: 'Acer'

We have identified the following top level goals for 85 OurBank Europe systems:

Increase compliance with CISS: 25% compliance ➔ 90% compliance

Reduce the time it takes to process a request for a new user account: 24 hrs ➔ 4 hrs

Increase service availability: 10 hrs ➔ 24 hrs

Reduce costs: 100% of current level ➔ 60% of current level

The systems for which these goals have been identified serve over 30,000 users.

Security administration is currently provided by an ISAG, which is managed by John C .

These goals ought to be achieved by a deadline of 30-Jun-xx

Acer: Security Administration Compliance:

Security Administration Compliance:

Ambition: to become compliant and to remain continuously compliant with all current officially binding security administration requirements both from THE CORP and Regulatory Authorities.

Scope: Account Opening and Entitlement Reporting.

Scale: % compliant with THE CORP Information Security Standards (CISS) [THE CORP Information Se
System or Process.

Note: CISS is an officially binding security administration requirement with which we must become comp

Quantified Definition

========= Benchmarks ==========

Past [CISS = RSA and IBECS ISAG Compliance Matrix [Regional Security Administration and IBECS Independent Security Administration Group, October 2003] 25% <- JC, Nov-03

Note: The RSA/IBECS Compliance Matrix originates from Otto Ch

Benchmarks = Systems Analysis

========= Targets ==========

Wish [Deadline = March 2004, Systems = High Criticality Systems] 100%

Wish [Deadline = June 2004, Systems = {Medium & Low} Criticality Systems] 100%

Note: Wishes are stakeholder valued levels that we are not yet sure we can deliver in pra
just acknowledging the desire.

Values, unknown cost

Goal [Deadline = March 2004, Systems = High Criticality Systems] 90%±5%

Goal [Deadline = June 2004, Systems = {Medium & Low} Criticality Systems] 90%±5%

Goal [Midline = February 2004] **50%±10%** "intermediary goal short of 100%"

Note: Goal levels are what we think we can really promise and focus on. These types of goals pu
Evolutionary result delivery steps.

Realistic Project Targets Val/€

Stretch [Deadline = March 2004, Systems = High Criticality Systems] 95%±5%

Stretch [Deadline = June 2004, Systems = {Medium & Low} Criticality Systems] 95%±5%

Note: Stretch levels are something that we might be able to achieve if we have sufficient resources, focus
are not sure of that yet. We are NOT promising it now! So this is a way to hold the ideals up in case those t

Values, if enough resources left

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Security Administration Performance:

Ambition: To have a highly competitive service capability for security admi
entitlement reporting related work processes

Scope: Account Opening and Entitlement Reporting.

Scale: Time in elapsed hours for a defined [Person, default: Employee] of c
default: Trained] to successfully respond to a [Client Request, default: Crea

Quantified Definition

Note: this strongly parameterized Scale, which is a basic structure for deriving Evolutionary steps of partial value delivery, is specified in the Goal statements below.

Meter: Daily Activity Report

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

Benchmarks = Systems Analysis

Past: [Client Request = Create New User ID] 24

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}

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

Wish: [Person = Employee, Capability = Trained, Client Request = Create New User ID, Conditions = Normal Conditions] 2 hours

Goal: [Person = Employee, Capability = Trained, Client Request ions = Normal Conditions] 4 hours

Values, unknown costs

Stretch: [Person = Employee, Capability = Trained, Client Reque
= Normal Conditions] 3 hours

Realistic Project Targets Val/

Values, if enough resources left

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Acer: Security Administration Availability:

Security Administration Availability:

Ambition: To have a service capability for security administration and entitlement re available to respond to client requests in real-time for 24 hours a day Monday to Frid year.

Scope: Account Opening and Entitlement Reporting.

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

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, U quest = 24 hours, Bulk Requests (EG Project related) = 2 week

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 = Cre rmal Conditions] 21x5 hours*

Values, unknown costs

Stretch: *[Person = Employee, Capability = Trained, Client Request = Conditions] 22.5x5 hours*

Realistic Project Targets Val/€

Note: the goal statement still allows a response that meets 24x5 availability requirements within a 4 hour window

Values, if enough resources left

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Acer: Security Administration Cost:

Security Administration Cost:

Ambition (level): reduce current cost of compliance (including b
client effort) to a minimum.

Scope: Account Opening and Entitlement Reporting.

Scale: the relative % cost of 2003 levels of cost for defined [Pers
defined [Client Requests] under Normal Conditions.

Meter: US$ cost for security administration services

========= Benchmarks ==========

Past: [2003, Persons = {Employees & Clients}, Client Requests = All] 100% 'by definition'

========= Targets ==========

Wish: [June 2004, Persons = Employees, Client Requ 40%

Goal: [June 2004, Persons = Employees, Client Request = Create New User ID] 60%

Stretch: [June 2004, Persons = Employees, Client Request = Create New User ID] 50%

Quantified Definition

Benchmarks = Systems Analysis

Values, unknown costs

Realistic Project Targets Val/€

Values, if enough resources left

Acer: 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.

How much do these strategies cost?

System Control Strategy:

Gist: a formal system or process we can use to decide what characteristics a [system; default = application] 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.

System Implementation Strategy:

Gist: a formal system or process we can use to actually change a [system; default = application] so that it meets our compliance, performance, availability and cost goals

All systems ought to feed EERS

Publish best practices for developing security administration requirement specifications

Publish a security administration requirement specification template

Application technology managers are service providers in the formal change process, that

How much impact on our 4 Goals do these strategies have?

Find Services That Meet Our Goals Strategy:

Gist: a formal system or process we can use to evaluate security administration services offered by internal and external services providers so that we can meet our defined goals

Note: this strategy avoids pre-supposition that one solution is the only option (EG all applications must migrate to RSA and that RSA is the only security administration services offering)

Use The Lowest Cost Provider Strategy:

Gist: use the services provider that meets all signed-off project goals for the lowest $US cost.

Note: if all project goals can be met by more than one services provider, the provider offering the lowest $US cost for meeting the goals and no more than the goals ought to be used

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Acer Project: Impact Estimation Table

Strategies

Objectives

Impacts

Strategies / Goals	Identify Binding Compliance Requirements Strategy	System Control Strategy	System Implementation	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%	[illegible]	[illegible]	100%	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%

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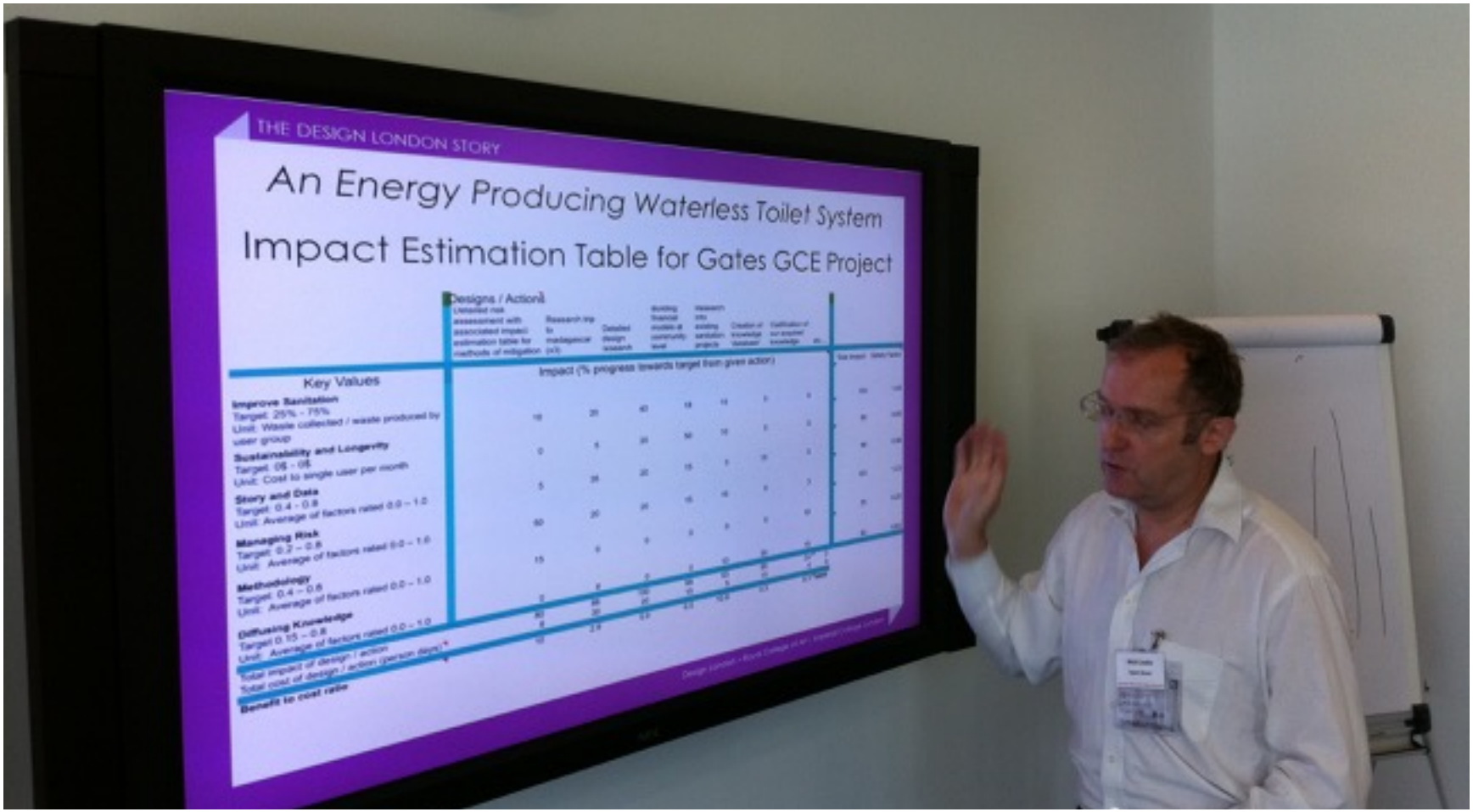
LOOWATT: A NEW PARADIGM IN SANITATION

Nick Coutts Presenting



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creativity

innovation

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….. to broaden the understanding and skills of tomorrow's business leaders, creative specialists, engineers and technologists

The challenge…..get business people, engineers, technologists and designers to understand one another

Cox Review: Creativity in Business

DESIGN LONDON

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Royal College of Art

Imperial College Business School

Design London

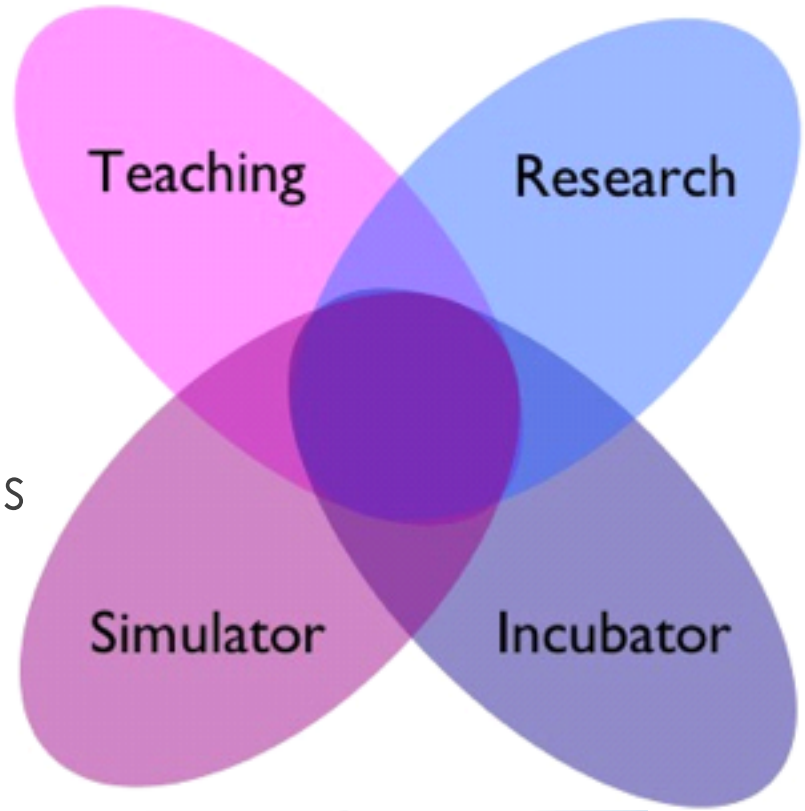
Imperial College Faculty of Engineering

Interdisciplinary **teaching** of postgraduate students and industry

Incubate new ventures and talent

Research the role of design methods, tools and practices on business value creation

Simulation and other digital technologies for high velocity innovation



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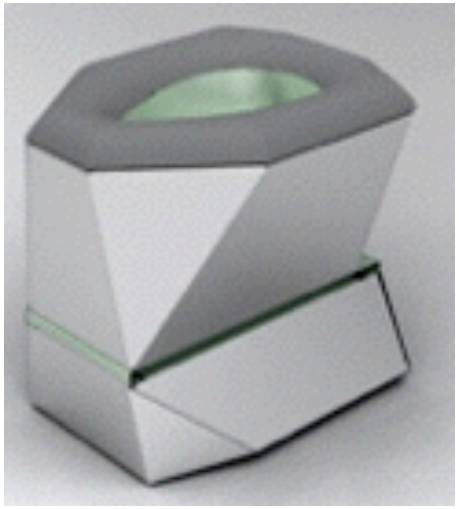
Key Values: LooWat

- **Improve Sanitation**
  Target: 25% - 75%
  Unit: Waste collected / waste produced by user group
- **Sustainability and Longevity**
  Target: 0$ - 0$
  Unit: Cost to single user per month
- **Story and Data**
  Target: 0.4 - 0.8
  Unit: Average of factors rated 0.0 – 1.0
- **Managing Risk**
  Target: 0.2 – 0.8
  Unit: Average of factors rated 0.0 – 1.0
- **Methodology**
  Target: 0.4 – 0.8
  Unit: Average of factors rated 0.0 – 1.0
- **Diffusing Knowledge**
  Target 0.15 – 0.8
  Unit: Average of factors rated 0.0 – 1.0



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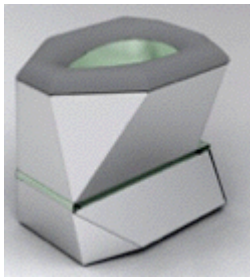
An Energy Producing Waterless Toilet System

Impact Estimation Table for Gates GCE Project



Key Values	Designs / Actions: Detailed risk assessment with associated	Research trip to madagascar (x3)	Detailed design research	Building financial models at	Research into existing	Creation of knowledge	Codification of our acquired knowledg	etc....	Total Impact	Safety Factor
	Impact (% progress towards target from given action)									
Improve Sanitation Target: 25% - 75% Unit: Waste collected / waste produced by user group	10	20	40	18	15	0	0		103	1.03
Sustainability and Longevity Target: 0$ - 0$ Unit: Cost to single user per month	0	5	20	50	10	0	0		85	0.85
Story and Data Target: 0.4 - 0.8 Unit: Average of factors rated 0.0 – 1.0	5	35	20	15	3	15	5		98	0.98
Managing Risk Target: 0.2 – 0.8 Unit: Average of factors rated 0.0 – 1.0	50	20	20	15	15	0	3		123	1.23
Methodology Target: 0.4 – 0.8 Unit: Average of factors rated 0.0 – 1.0	15	0	0	0	0	0	10		25	0.25
Diffusing Knowledge Target 0.15 – 0.8 Unit: Average of factors rated 0.0 – 1.0	0	8	0	0	10	50	15		83	0.83
Total impact of design / action	80	88	100	98	53	65	33	0		
Total cost of design / action (person days)	8	30	20	15	5	15	4	0		
Benefit to cost ratio	10	2.9	5.0	6.5	10.6	4.3	8.3	####		

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FEEDBACK FROM LOOWAT

- They continued to use the planning method throughout the 14 month project
  - Because it helped keep them on track to the real critical objectives
- They highly recommended to their 20 parallel incubator projects, that they should use these methods for planning their startups

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Winners!

- The **Bill & Melinda Gates Foundation** has awarded Loowatt Ltd a $1 million grant to expand its pioneering waterless toilet systems in Madagascar and Sub-Saharan Africa.
- 13.09.2013

Many Awards

10. 2013
Smarta100 Awards 2013 – Top 100 Small Businesses in the UK, Biggest Social Impact Category

07. 2013
Bill & Melinda Gates Foundation – Grand Challenges Explorations grant phase II

02. 2013
Climate Change Week award – Best Product 2013

09. 2013
The Buckminster Fuller Challenge 2013 – Semi-finalist

Link to Award Information

06. 2013
The Observer – Observer Ethical Awards

01. 2013
Innovate UK – Rushlight Resource Innovation Award

Case March 2014 Helsinki Startup top view

- **Top Ten Critical Objective/needs/ benefits/Requirements**
  - **Effectiveness: Understand the Effectiveness of their Teaching**
  - **Drop Out Rate:**
  - **Profitability:**
  - **Scope: of content**
  - **Employability:**
  - **Distance Capability:**
  - **Tool Real Deployment:**
  - **Visibility of Learning: Transparency**
  - **Ranking Effect:**
  - **Collaboration Capability:**
  - **Competitive Differentiation:**
  - **Personal Adaptability:**
  - **User Experience:**
  - **Usability:**

- **Strategies, in order of presumed effectiveness;**
  - **S1:** Product must meet Published Expectations
    - **Impact [G1] 75% ±15% ?? <- Vesa**
      - (means "all the way to the 90% satisfaction over 3 years" on the Deadline).
      - **Evidence**: bits and pieces collected from various sources, Helsinki U. My and Company Experience from Various sources
        - » "100% of uni Teachers at Hel Uni, would start using Triba even if their Uni would not buy it.
        - » Source: Pilot feedback by the professor on the course. Sanna Vahtivuori URL: none known.Two hours interview …..
      - **Sources**: Customers and users, potential customers.
      - **Credibility**: (0.0 to 1.0) **0.2** (one case).
      - **Cost** as % of 'Budget' : about 1% of money left in Bank now from initial investors.
  - **S2:** Product must meet Implied or Normally Expected Expectations
  - **S3:** Product must meet Expectations from the Culture (ex Moslem Uni)
  - **S4.** <Shared income model with Singapore> ?? <-Leila-Mari

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Case March 2014 Helsinki Startup detail view

- **Competitive Differentiation::CD**
  - **Type: Complex Top Level University Objective**
  - **Version: 18.03.2014 11:38**
  - **Owner: CEO (Mervi)**
  - **Ambition: "disrupt the education industry" <- Vesa (Founder) 18.3.14**
  - **Includes: <subattributes>**
    - **Market Penetration Rate: tbd**
    - **User Growth Rate: tbd**
- **CD.Customer Value**: "probably complex but not now"
  - **Type:** Elementary ? Objective.
  - **Ambition:** <customer delighted long term> <- Vesa (Founder) 18.3.14
  - **Scale:** % of defined [Customers/Users/Institutions] who retain or improve on defined [Delight Level] for defined [Periods]
  - **Meter [Universities, Introduction Year] Sampling surveys at least 20% of Users**
  - **G1:Goal** [Institution = University, Mode = Virtual, Subject = Maths, Size = 100,000, Funding = For Profit, Users = Students, Delight level = Upper 25%, Period = at least 3 years, Deadline = By End 2015 ??, Market = Saudi] at least **90%** ?? <- SWAG TG
  - **Tolerable** [Institution = University, Mode = Virtual, Subject = Maths, Size = 100,000, Funding = For Profit, Users = Students, Delight level = Upper 25%, Period = at least 3 years, Deadline = By End 2015 ??, Market = Saudi] **at least 70% ?? <- SWAG TG**

- Owner: Marketing Director ?
- Version: 18 March 2014-03-18
- **Most critical stakeholders:**
  - **Students**
    - **(various types!)**
    - **University, Maths, Adult Education**
    - **? what is the 10 year horizon set of these**
  - **Teachers**
    - **Personas:**
  - **Rectors**
  - **Local (Council) Education Law**
  - **Tablets, various types**
  - **Product Reviews/Reviewers**
  - **Google**
  - **Educational Institutions**
    - **University SEE NEEDS**
      - **University: defined as: ….**
        - » **Virtual: defined as**
        - » **Any Subjects**
        - » **Subject = Maths**
        - » **Size = About 100,000 (Saudi pilot)**
        - » **For Profit**
      - –
    - **Technical College**
    - **Polytechnical = TECHNICAL COLLEGE ???**
    - **Gymnasium**
    - **Junior Schools**

The Startup Planning Course

- **Simplified Agile Startup Week**:
- Day 1 Setting Quantified Startup **Objectives**
- Day 2 **Strategies**/Architecture and Impact estimation

- https://www.dropbox.com/s/pzn6yedscqrk0zg/Startup%20Planning%20THE%20OUTLINE.docx

- Followed by either
  - Internal Participant Planning
  - Coaching to make their startup Plan

- gilb.com/CourseSchedule
- https://www.dropbox.com/s/pzn6yedscqrk0zg/Startup%20Planning%20THE%20OUTLINE.docx

- Courses currently planned in
  - London (Free)
  - 19-20 May Monday Tuesday
  - https://events.bcs.org/book/1055/ Booking
  - And 4-5 June on HMS President
    - Sponsor : Energizedwork.com
    - gus@energizedwork.com
    - Gus Power (a Planguage practitioner company) sponsoring site and coffee!
  - Oslo (Free) 7-8 May 2014
    - ikt-norge.no
  - Krakow (paid)
    - **Startup Planning**
    - June 18 2014
    - Info: procognita.com

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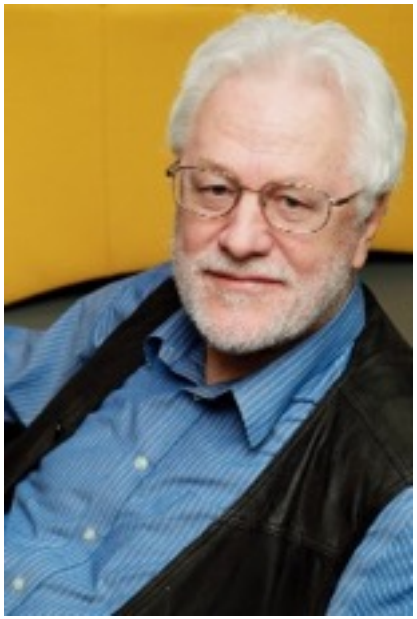
Thank You!

- www.Gilb.com
  - I'll be here at ACCU until after my Thursday Lightening Talk
  - Happy to discuss or supply more info
  - 077 1 267 0707 (UK Mobile)

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