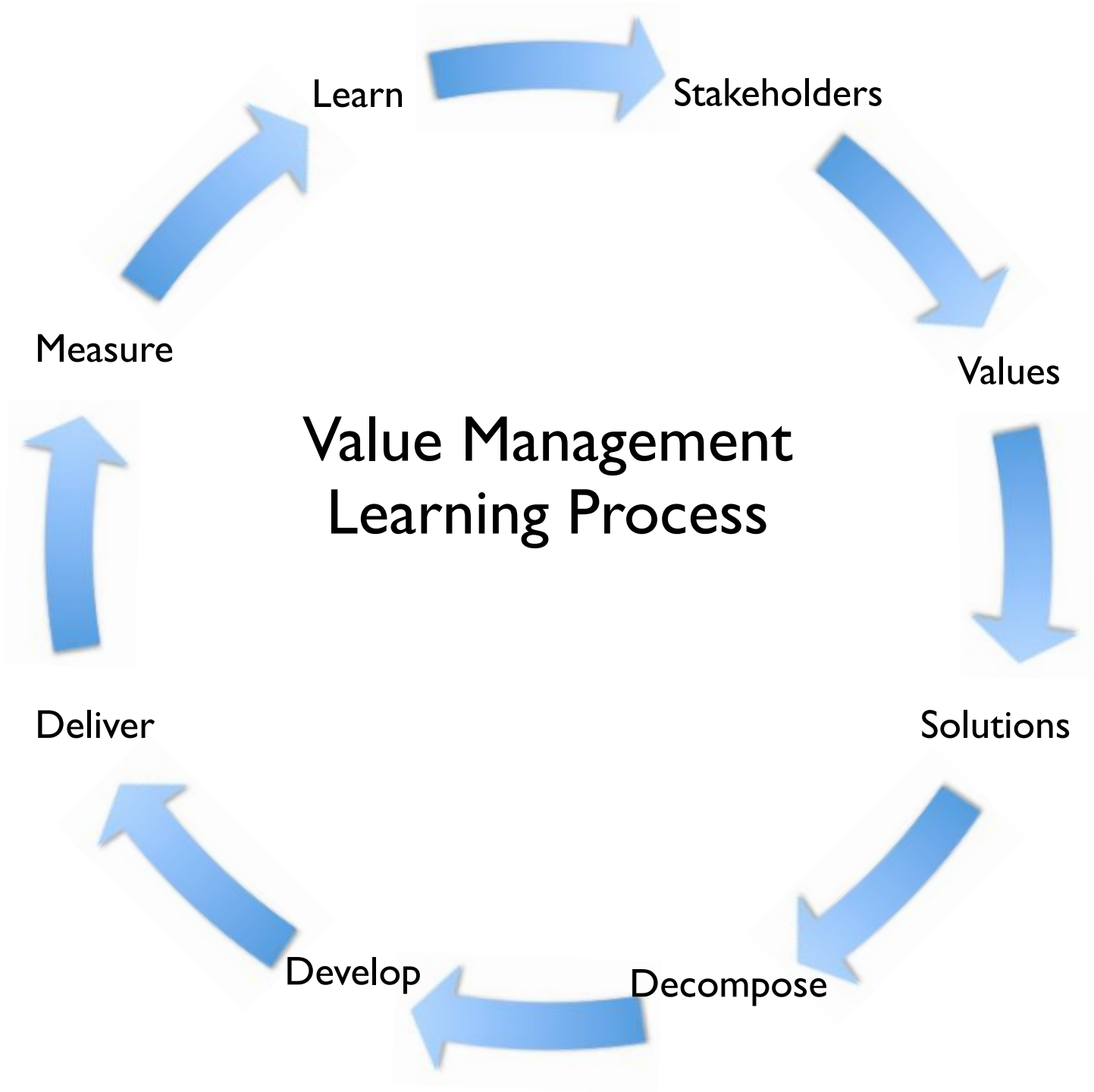
Value Management

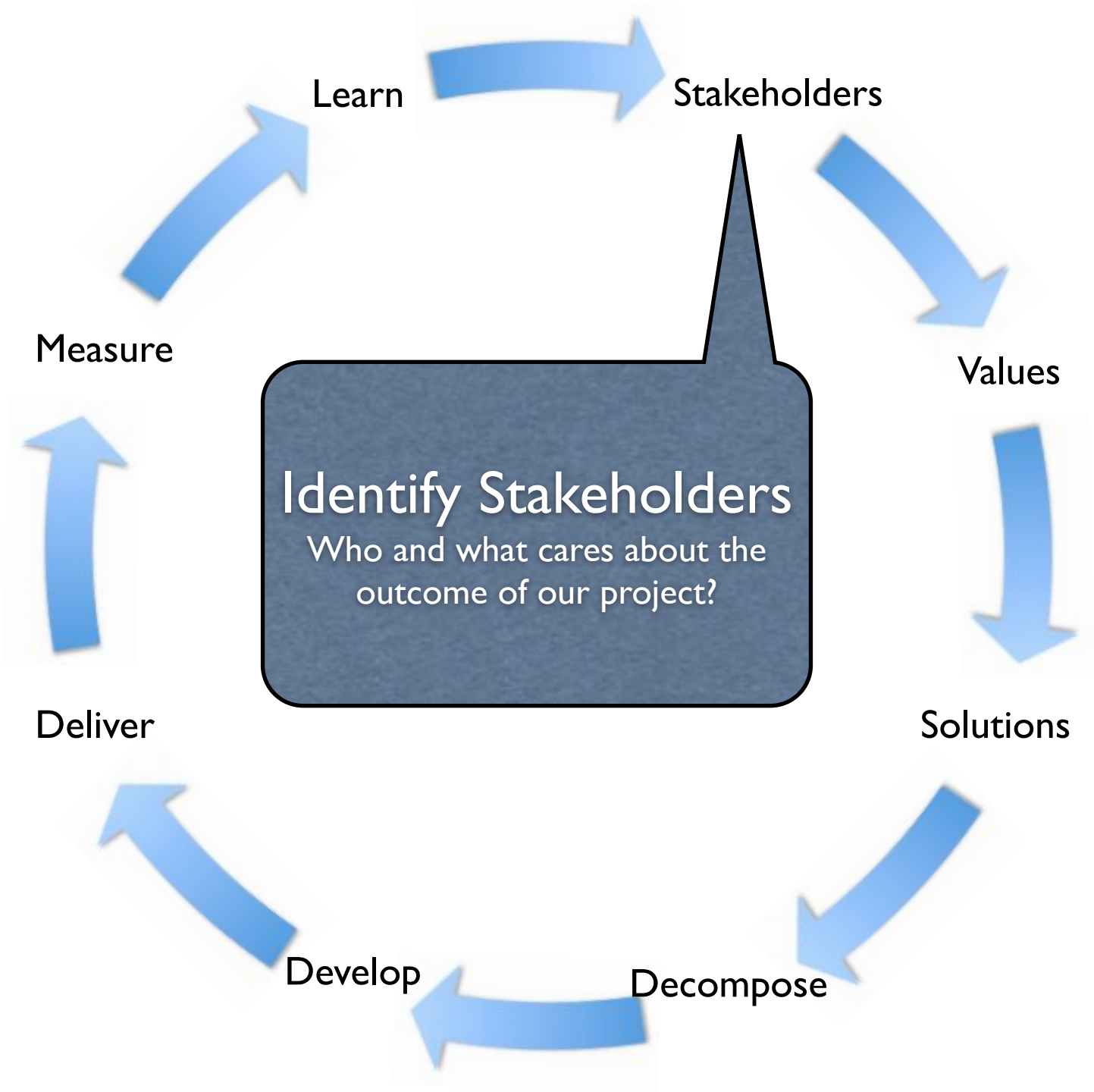
How to succeed

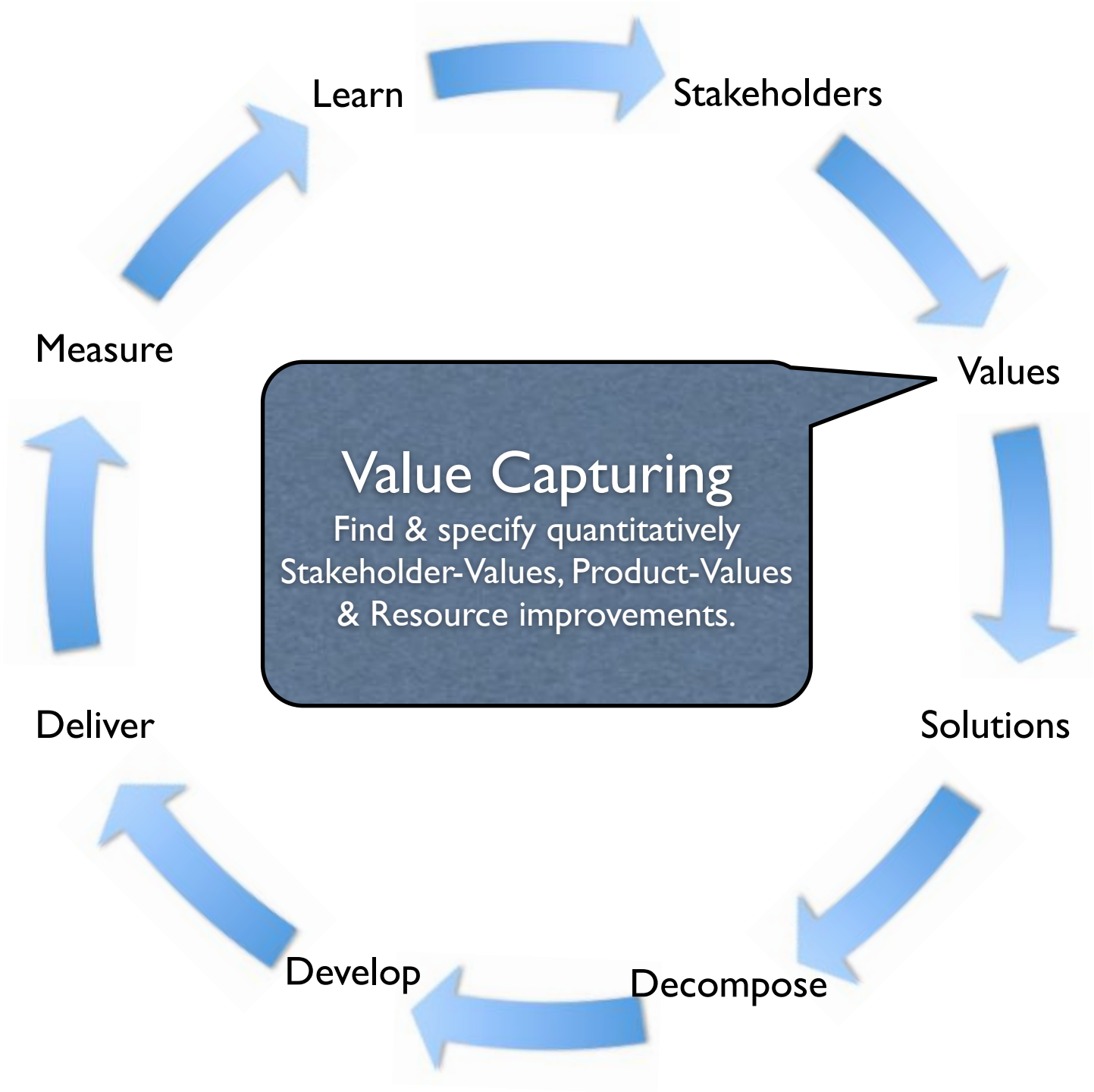
by Kai Gilb

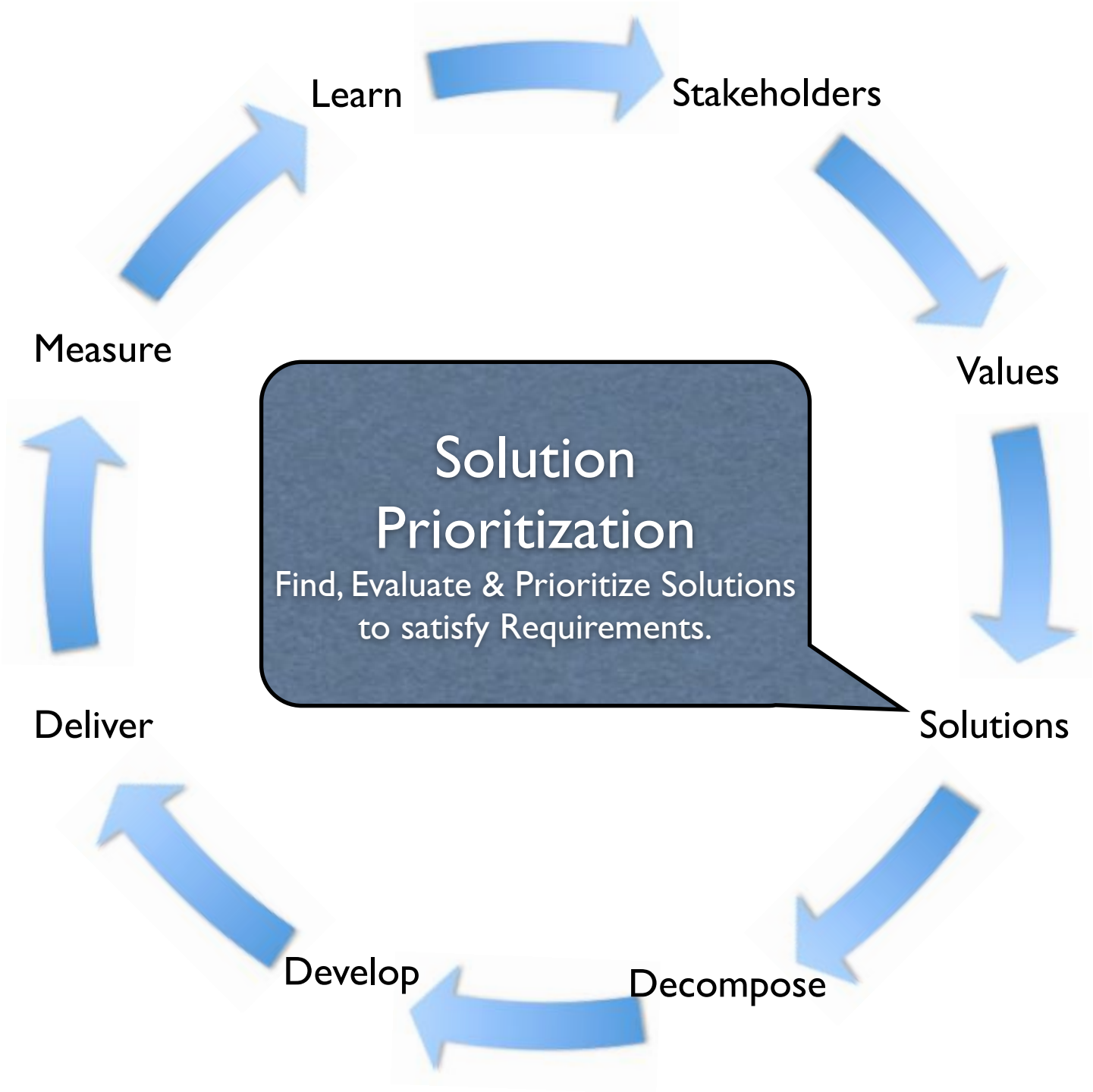
deliver
value to stakeholders,
within limited resources.

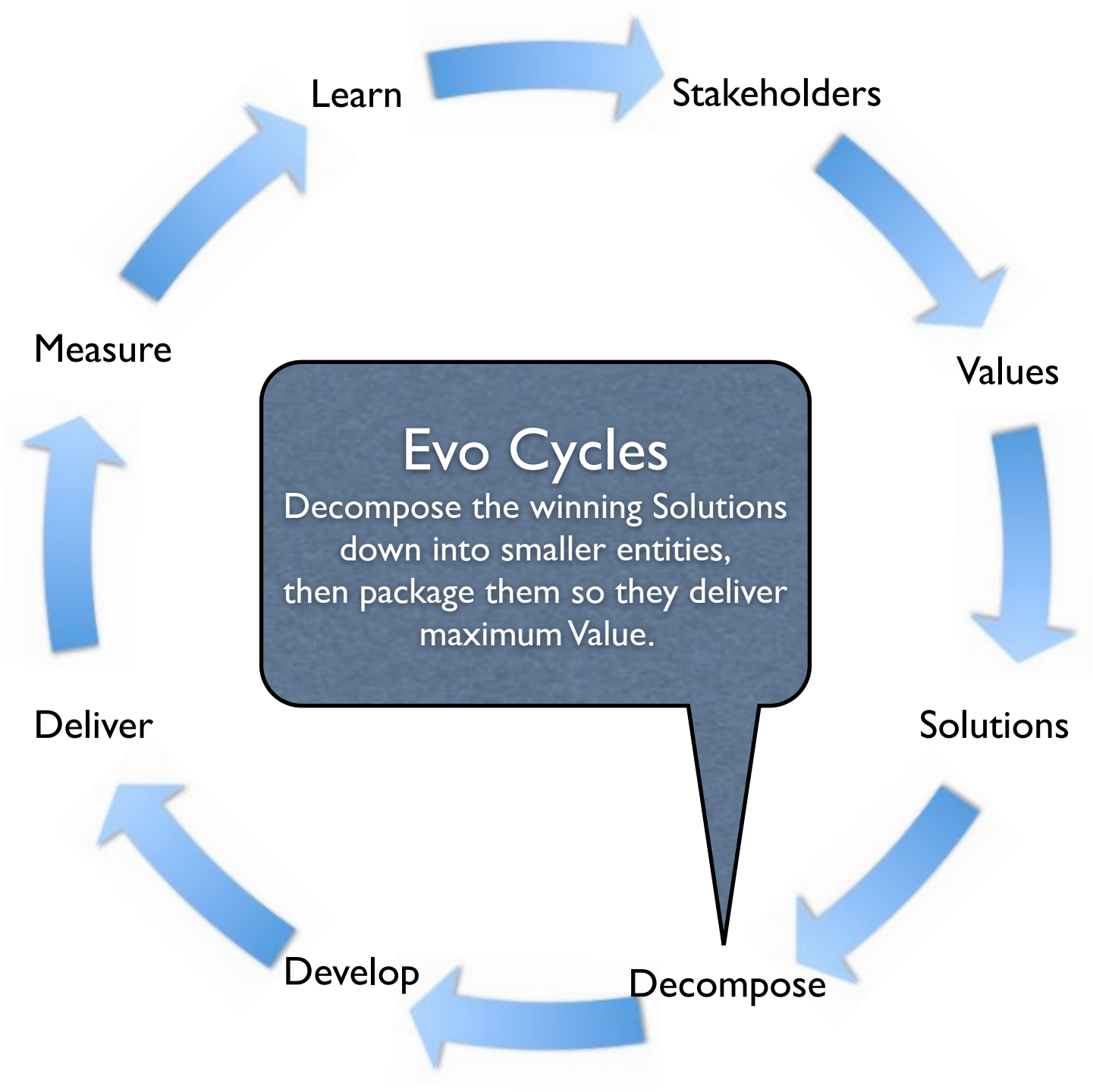
Case

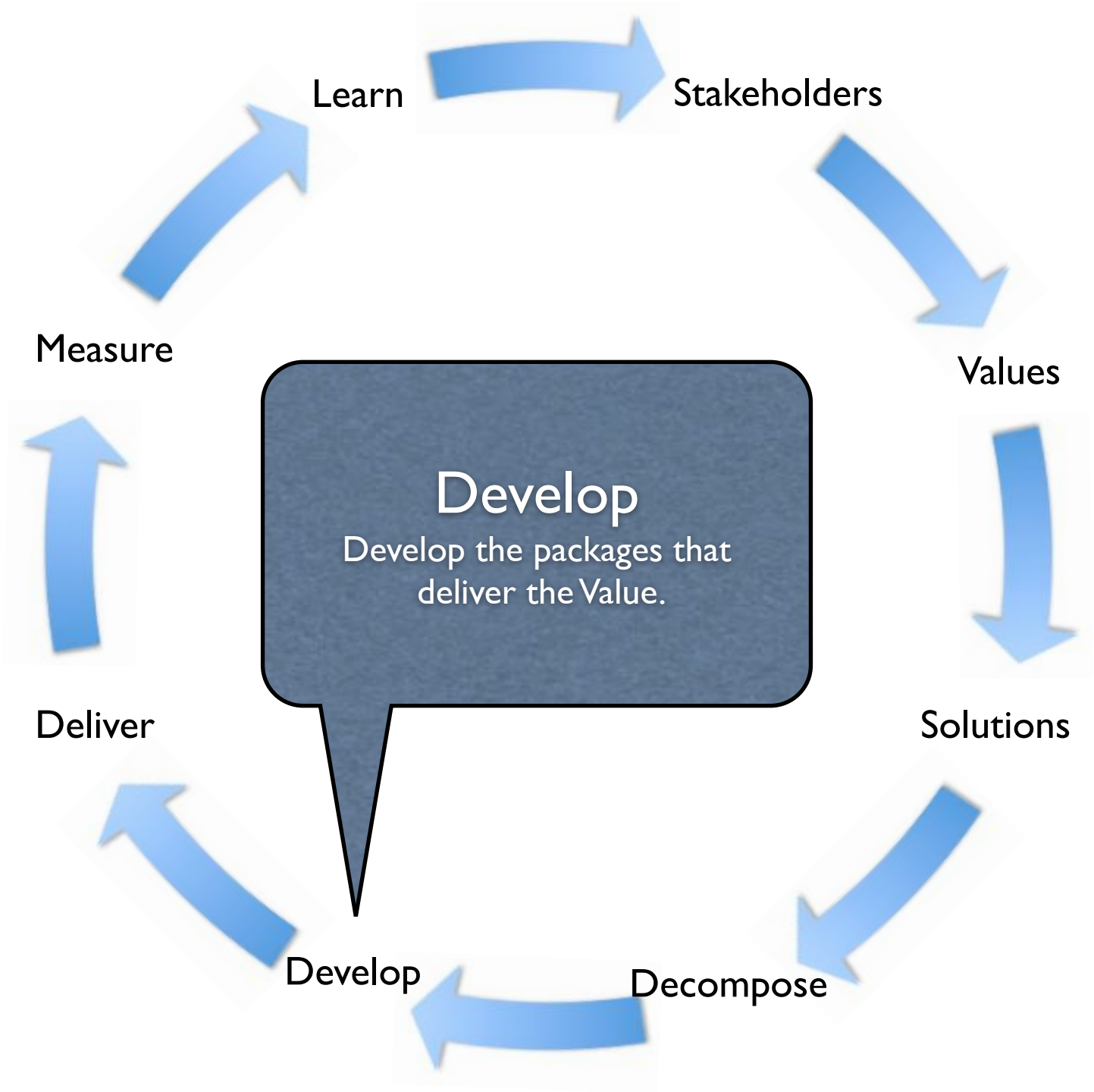


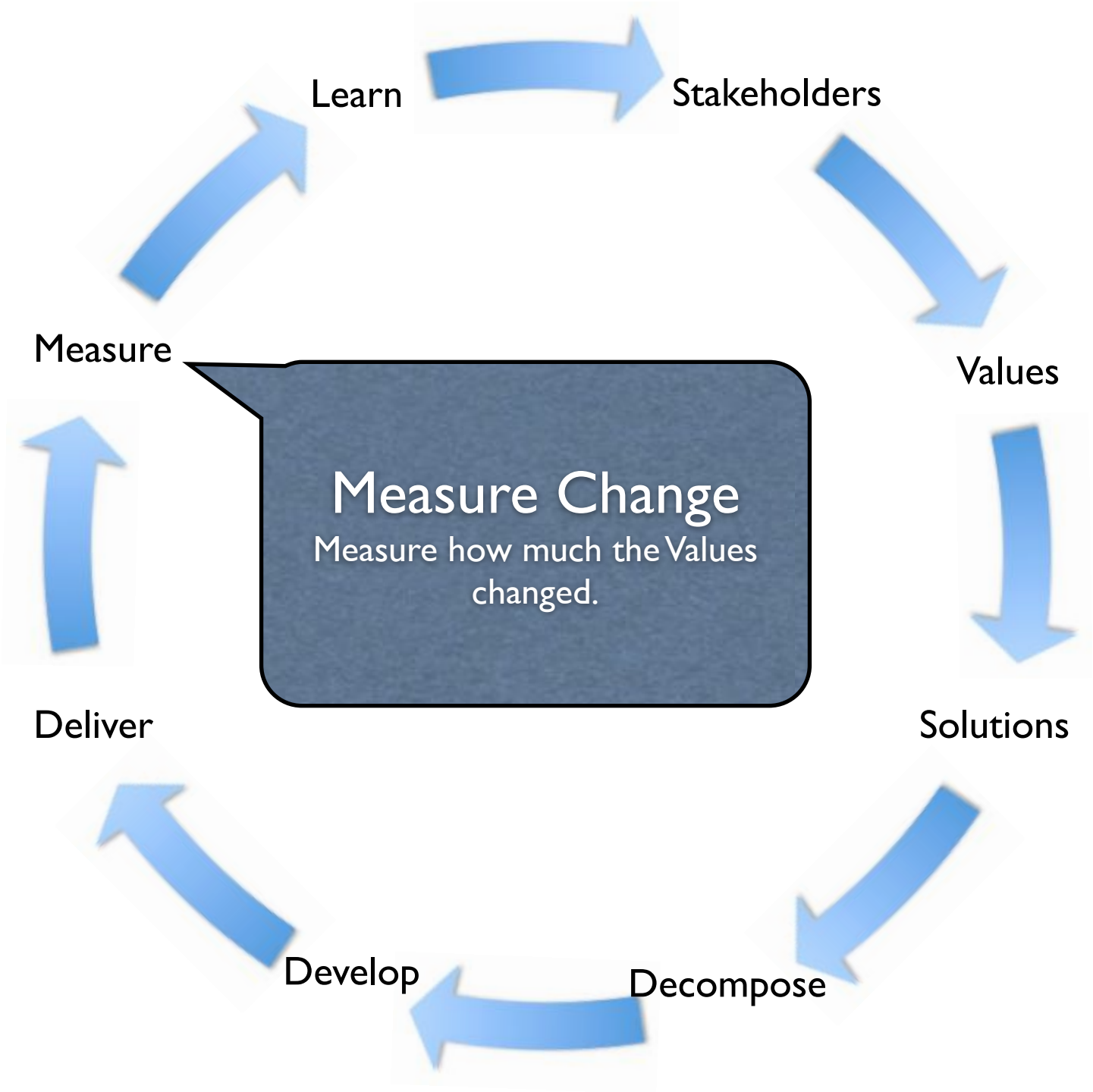


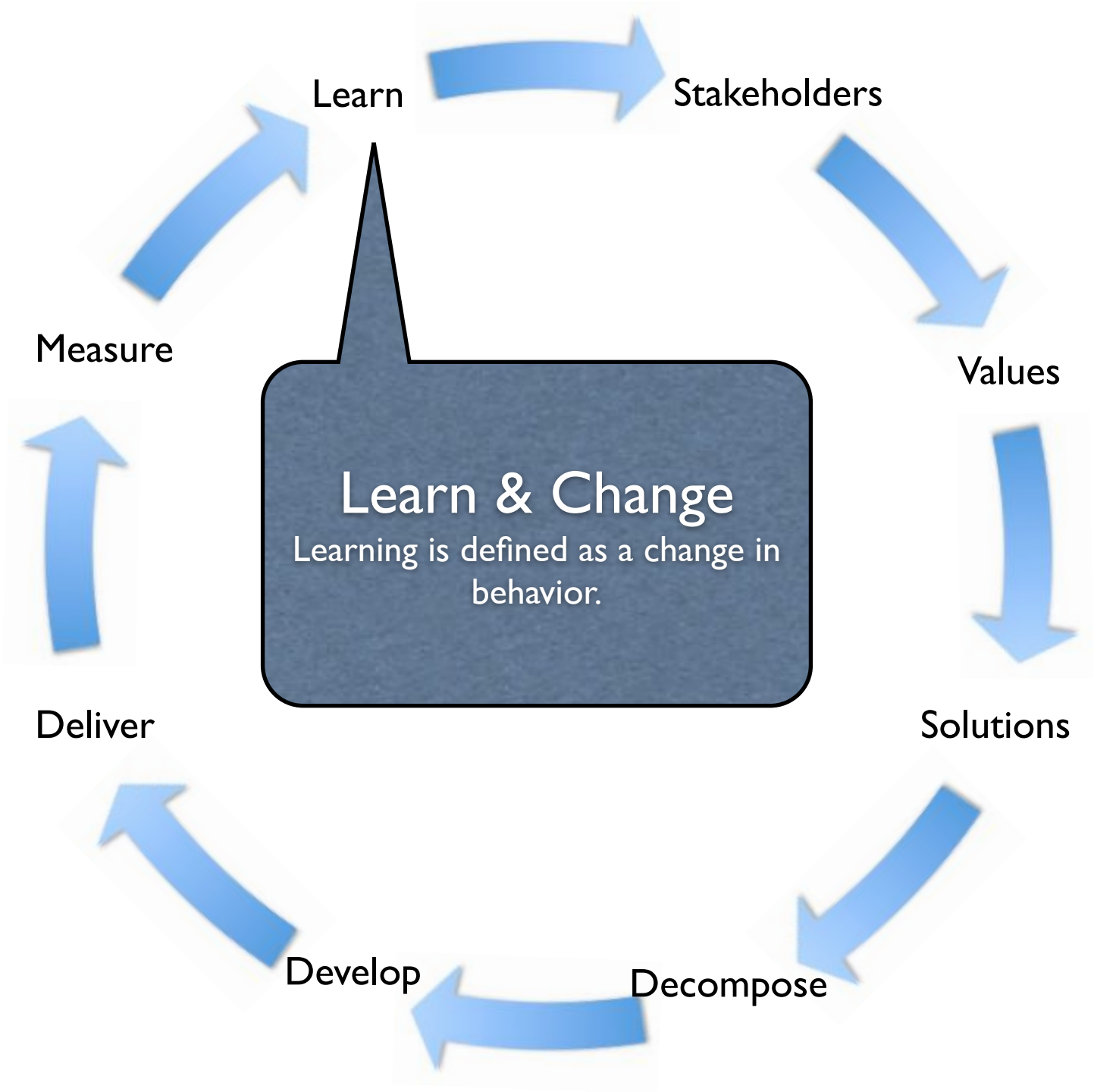


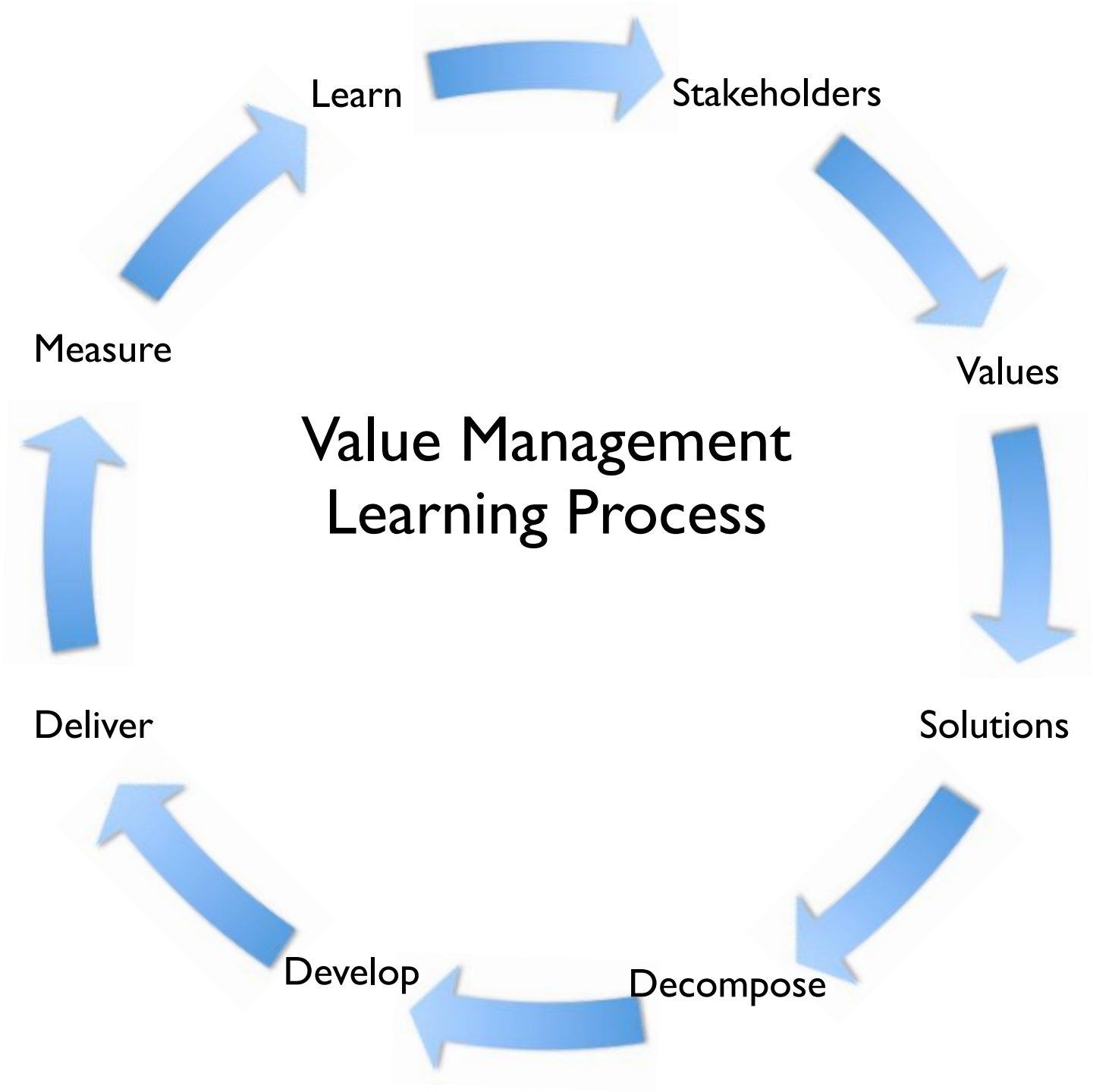












eholders

Values

nt
s

Solutions

pose

Defining Success

1. Identify Stakeholders

2. Specify Stakeholder Value and Product Value Requirements

What makes you choose one car over another?

deliver
value to stakeholders,
within limited resources.

How to Quantify Product-Values

The secret trick needed to **clearly** specify variable values is to:

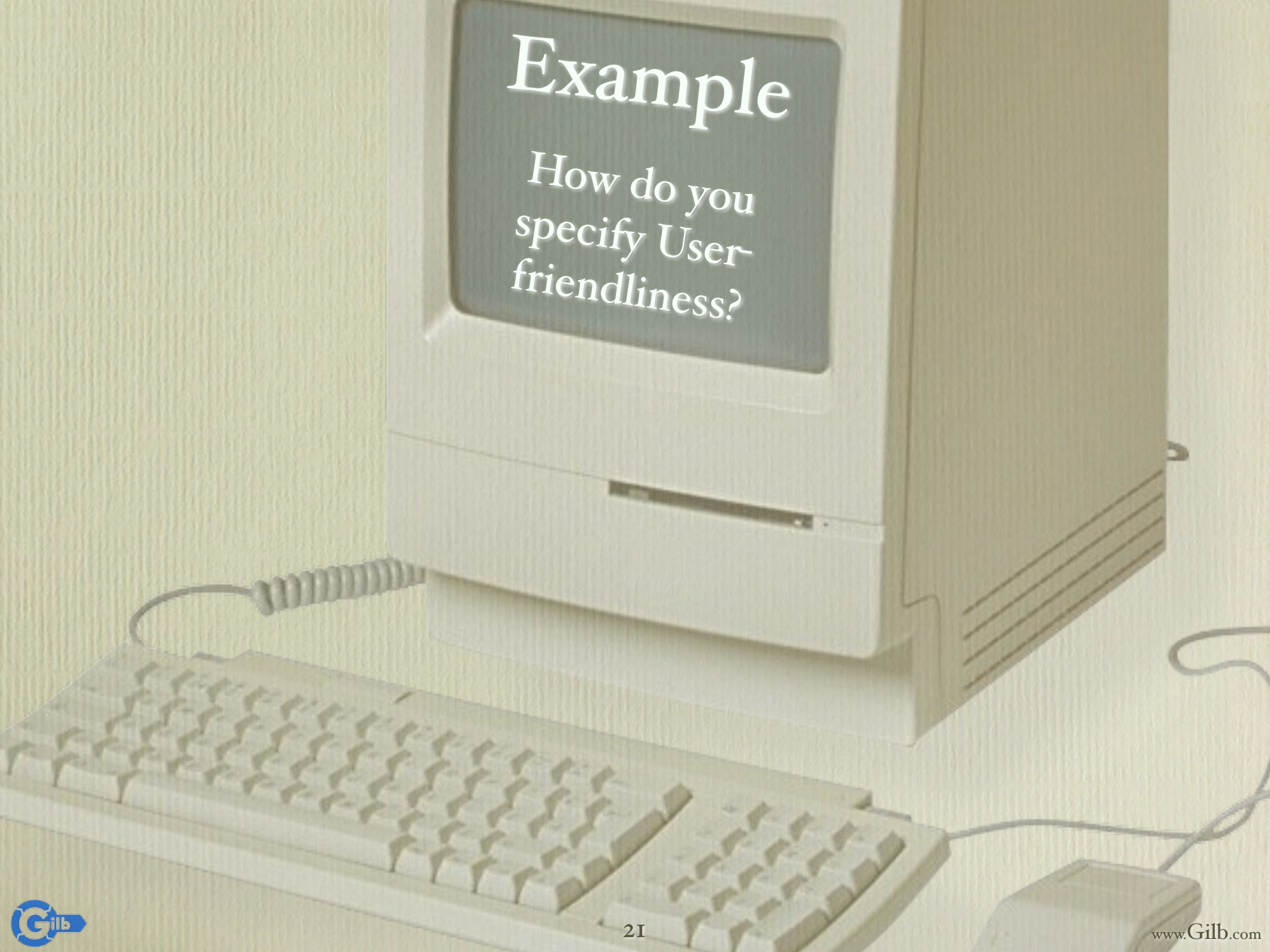
(Variable requirements = Product-Values + Performance + Stakeholder-Values + Development Resources)

The secret trick needed to **clearly** specify variable values is to:

Quantify

(Variable requirements = Product-Values + Performance + Stakeholder-Values + Development Resources)

Quantify



User Friendliness.Learn

Stakeholders: Users, Managers of Users, Application Teachers.

Scale: **average time to learn, how to do, 10 defined tasks.**

Past [Jan. 2014] **180 min.**

Goal [Jan. 2015] **30 min.**

Past
[Jan. 2014]
180 min.

Goal
[Jan. 2015]
30 min.

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Goal [Jan. 2015] **30 min.**

Example of Re-writing Requirements

so they become

Clear

Quantified

and Useful

- Data Availability
- All required data should be available for query and reporting ~~via Business Objects~~ Trader will specify data objects required.
- At any time, users ~~of Business Objects~~ should have access to trades with a Trade Date within the current year and the previous 2 years up to 01/01/(current year-2).
- It should be possible for Trader to query on trades with Trade Dates earlier than 01/01/(current year-2) with 1 day's notice.

Can you find any
'hidden'
Design
in the requirement
specification?

via
through
in order to
by

What do we do with the Design idea?

Business Objects

We can move it to the Design specification!

(where it belongs;-)

Design Ideas (Means)

Business Objects: A data query and reporting application *(to be confirmed)* that will be implemented to facilitate the query of CMIS data and the development of MIS reports.

- Data Availability
- All required data should be available for query and reporting

Data.Access.Speed

Scale: **Time**, **from:** Trader wants access to trades, **until:** they are provided with the information onscreen.

- At any time, users should have access to trades with a Trade Date within the current year and the previous 2 years up to 01/01/(current year -2).

Goal [MIS, with a Trade Date within the current year and the previous 2 years up to 01/01/(current year -2)] **10 Minutes** <- *Sarah*

- It should be possible for Trader to query on trades with Trade Dates earlier than 01/01/(current year -2) with 1 day's notice.

Goal [Trade Dates earlier than 01/01/(current year -2)] **1 day** <- *Trader*

Data.Access.Speed

Scale: **Time**, **from:** Trader wants access to trades, **until:** they are provided with the information onscreen.

Goal [MIS, with a Trade Date within the current year and the previous 2 years up to 01/01/(current year -2)] **10 Minutes** <- *Sarah*

Goal [Trade Dates earlier than 01/01/(current year -2)] **1 day** <- *Trader*

Data.Access.Speed

Scale: Time, from: Trader wants access to trades, until: they are provided with the information onscreen.

Goal [MIS, with a Trade Date within the current year and the previous 2 years up to 01/01/(current year -2)] **10 Minutes**
<- Sarah

Goal [Trade Dates earlier than 01/01/(current year -2)] **1 day**
<- Trader

Administration
Type: Stakeholder Value
Version: 22. Nov. 2006
Owner: Kai Gilb
Stakeholders: Traders
Past [MIS, with a Trade Date within the current year and the previous 2 years up to 01/01/(current year -2)] **120 Minutes**
<- Market research report 06

Past [Trade Dates earlier than 01/01/(current year -2)] **3 days**
<- Market research report 06

Data.Access.Speed

Administration

Type: Stakeholder Value
Version: 22. Nov. 2006
Owner: Kai Gilb

Stakeholders: Traders

Scale: **Time, from: Trader wants access to trades, until: they are provided with the information onscreen.**

Past [MIS, with a Trade Date within the current year and the previous 2 years up to 01/01/(current year -2)] **120 Minutes** <- *Market research report 06*
Goal [MIS, with a Trade Date within the current year and the previous 2 years up to 01/01/(current year -2)] **10 Minutes** <- *Sarah*

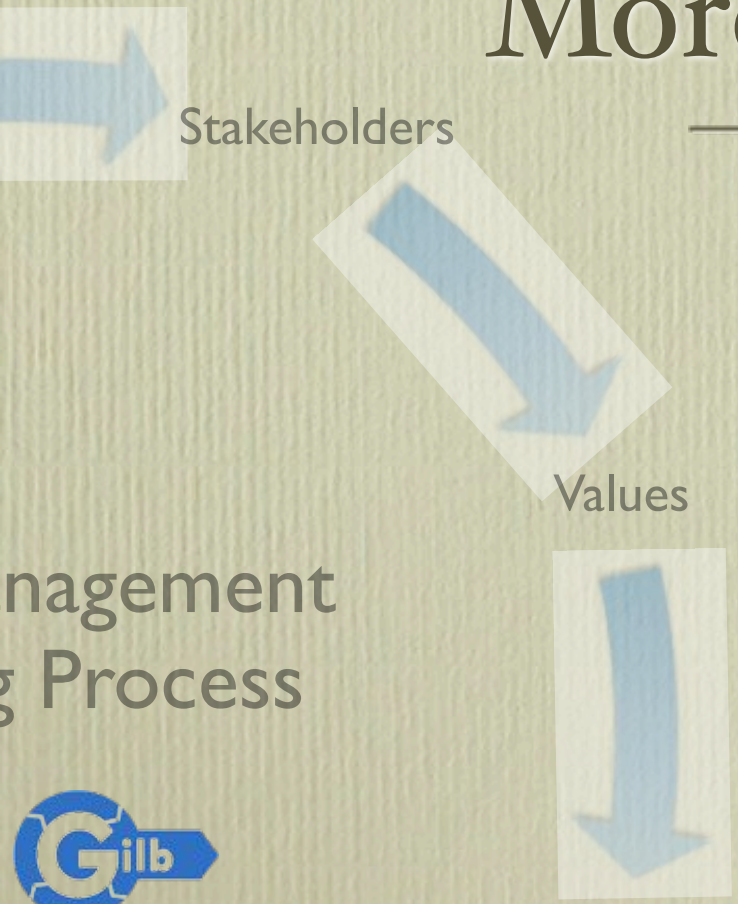
Past [Trade Dates earlier than 01/01/(current year -2)] **3 days** <- *Market research report 06*
Goal [Trade Dates earlier than 01/01/(current year -2)] **1 day** <- *Trader*

Scale: Time,

from: Trader wants access to trades,

until: they are provided with the information onscreen.

More Real Examples



Draft ASML specification

Maintenance

Administration:

Version: 14:10, 23. Nov 06

Owner: Jack V.

Type: Value

Stakeholders: Customers, Customer Support.

Scale: Mean Time to Repair

from: a fault exists in the system.

to: fault is fixed, and the system back is in operation.

Past [Product A, Fault = Can be fixed by Calibration] **3 hours ???** <- Linda W. guess

Goal [Product X, Stakeholder: System Engineering, 2006, Fault = Can be fixed by Calibration] **16 hour** <- SSE Overlay NEE Doc ID: 983/05, OMWT.02

Goal [Product X, Stakeholder: Production Engineering, 2006, Fault = Can be fixed by Calibration] = **Past** <- Production Engineering, LESSD, <Doc ID:??, Name tag.>

Drill-Accurately

Ambition: No drilling surprises. <- Source: 1. Class
Version: v 1,2. Owner: Charles W.
Type: Stakeholder Value
Stakeholders: Oil Company, WG, Operators-Interperators.

Scale: number of Drilling-Surprises per 100 Drills for defined [Well-Type] at defined [Fields].

Meter: [at final delivery, Well-Type=Deviated] Oil company measures
Meter: [during development] ask drillers.

Past [Well-Type=Deviated, Fields = existing oil fields, 2006] **<50**±50 *<- 1. Class*
Past [Well-Type=Vertical, 2006] 20 *<-Source: 1. Class*

Record [ ] *<-Source:*
Trend [ ] *<-Source:*

Tolerable [Well-Type=Deviated, Fields = existing oil fields, 2007] =**Past**
<- 1. Class

Goal [Well-Type=Deviated, Fields = existing oil fields, 2007] **Past – 50%**
<-1. Class

Wish [Well-Type=Deviated, Fields = existing oil fields, 2010] 0
<-Thorleiv

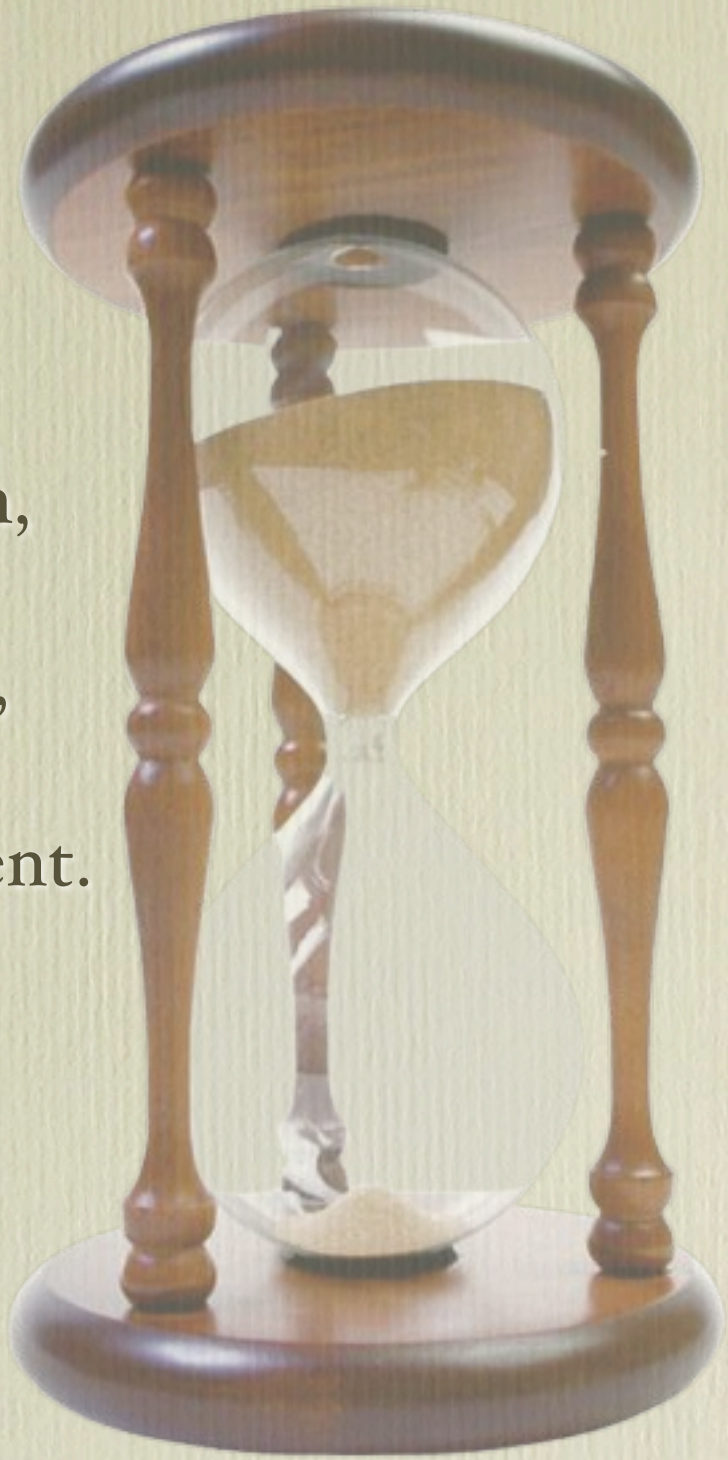
Drilling-Surprises: Defined as: unexpected results at target {depth to contact error, unexpected need to use casing material...}

Performance.Opening

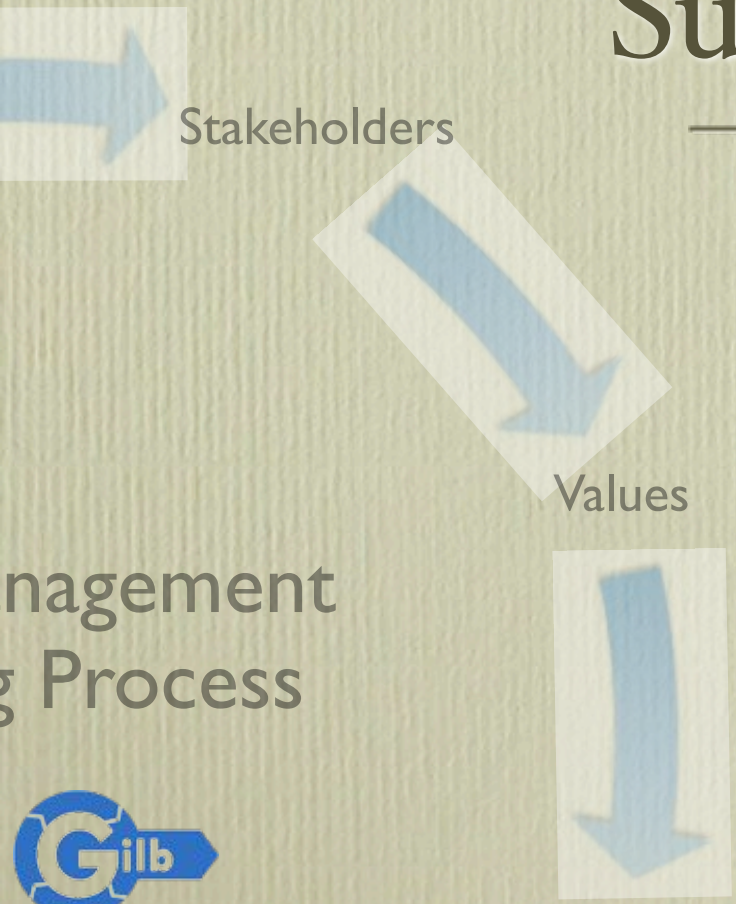
Stakeholders: End-User

Scale: **Seconds** to open application,
from a user is in front of a running operating system, application closed, with the intention to write;
until the user can write in a document.

Past [Jan 4. 2014] **10** sec.
Goal [Jan 4. 2015] **2** sec.



Summary Values



Define Success by defining **Product-Values** and Stakeholder-Values.

They
- make us competitive.
- make our customers choose one product over another.
- are the ones that makes our projects fail or succeed.

Critical Product-Values and Stakeholder-Values **vary**, so they should be specified

Quantitatively

Design Evaluation

3. Find, Evaluate & Prioritize Solutions to satisfy Requirements.

deliver
value to stakeholders,
within limited resources.

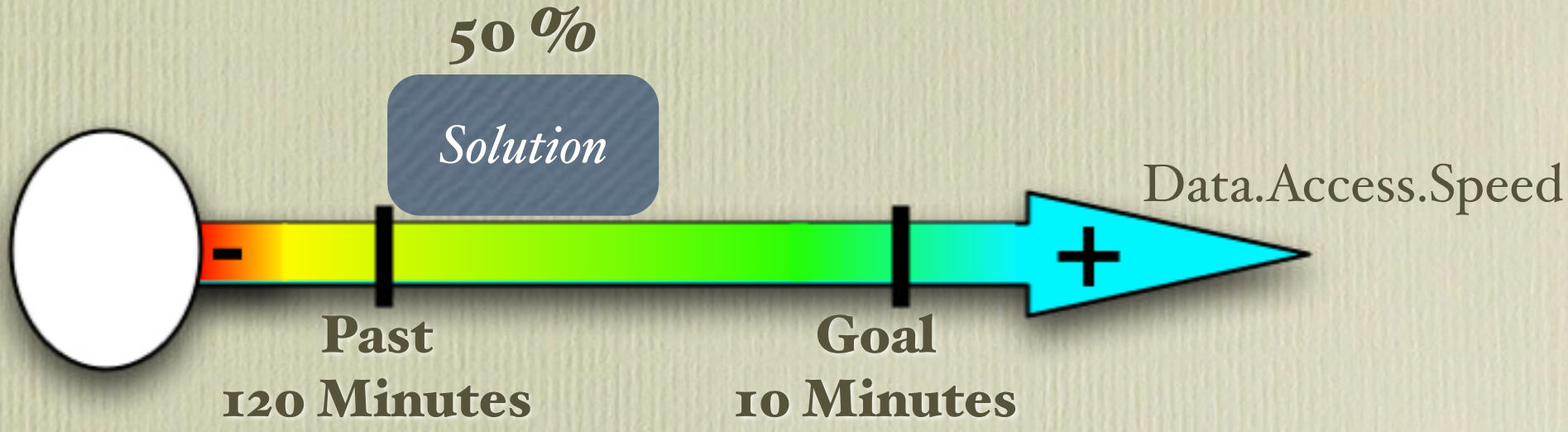
Design Evaluation
What I will tell you!

- Using an Value Decision Table (VDT), you can quantify how well a set of solutions satisfies a set of requirements.
- How to compare Apples and Oranges.

Evaluation of how well a set of Solutions satisfies a set of Requirements

using (VDT) Value Decision Tables

Scale: Time,
from Trader wants access to trades,
until they are provided with the information onscreen.



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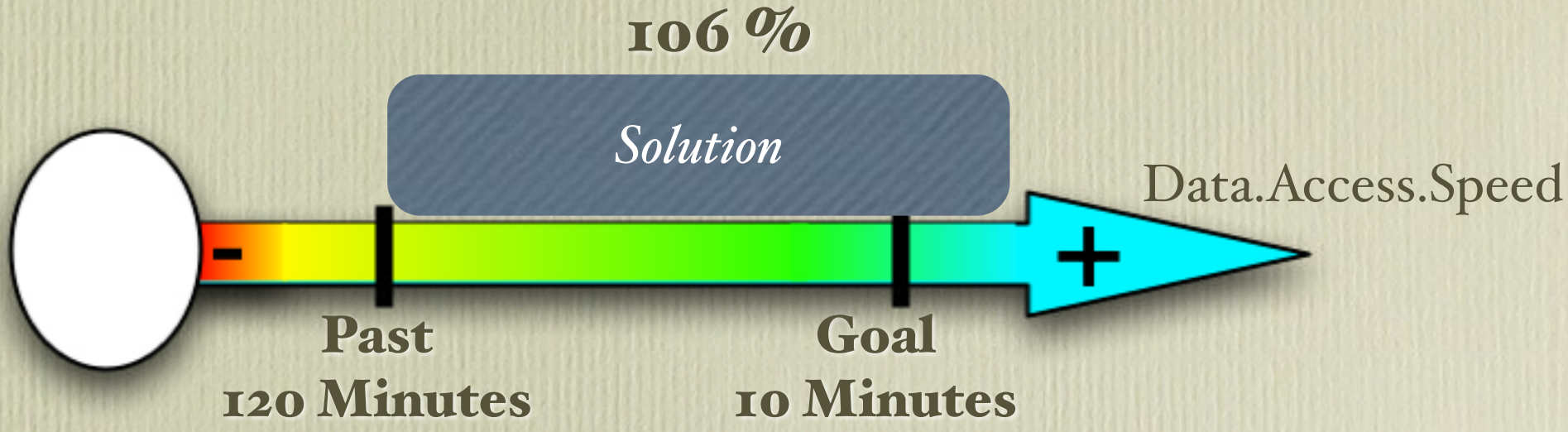


Scale: Time,
from Trader wants access to trades,
until they are provided with the information onscreen.

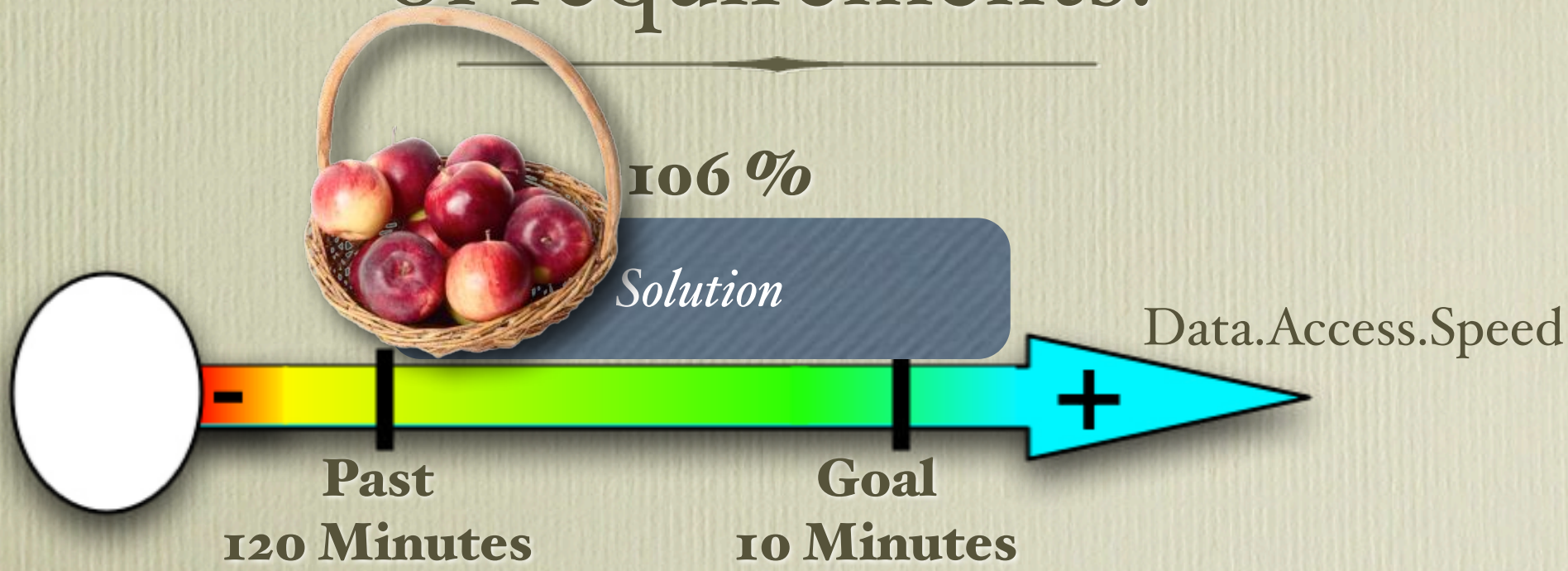
		Solutions / Design Ideas		
		Password	GUI-X	Encryption
Requirements	Usability	0 %	20 %	-10 %
	Security	5 %	-5 %	70 %
	Data.Access.Speed	0 %	0 %	-10 %
	Dev. Cost €	5 %	15 %	15 %

Can we compare apples and oranges?

		
Taste	60 %	40 %
Nutrition	50 %	40 %
Shelf Life	20 %	85 %
Price	60 %	40 %
Value for €	130/60=2.2	165/40=4.1

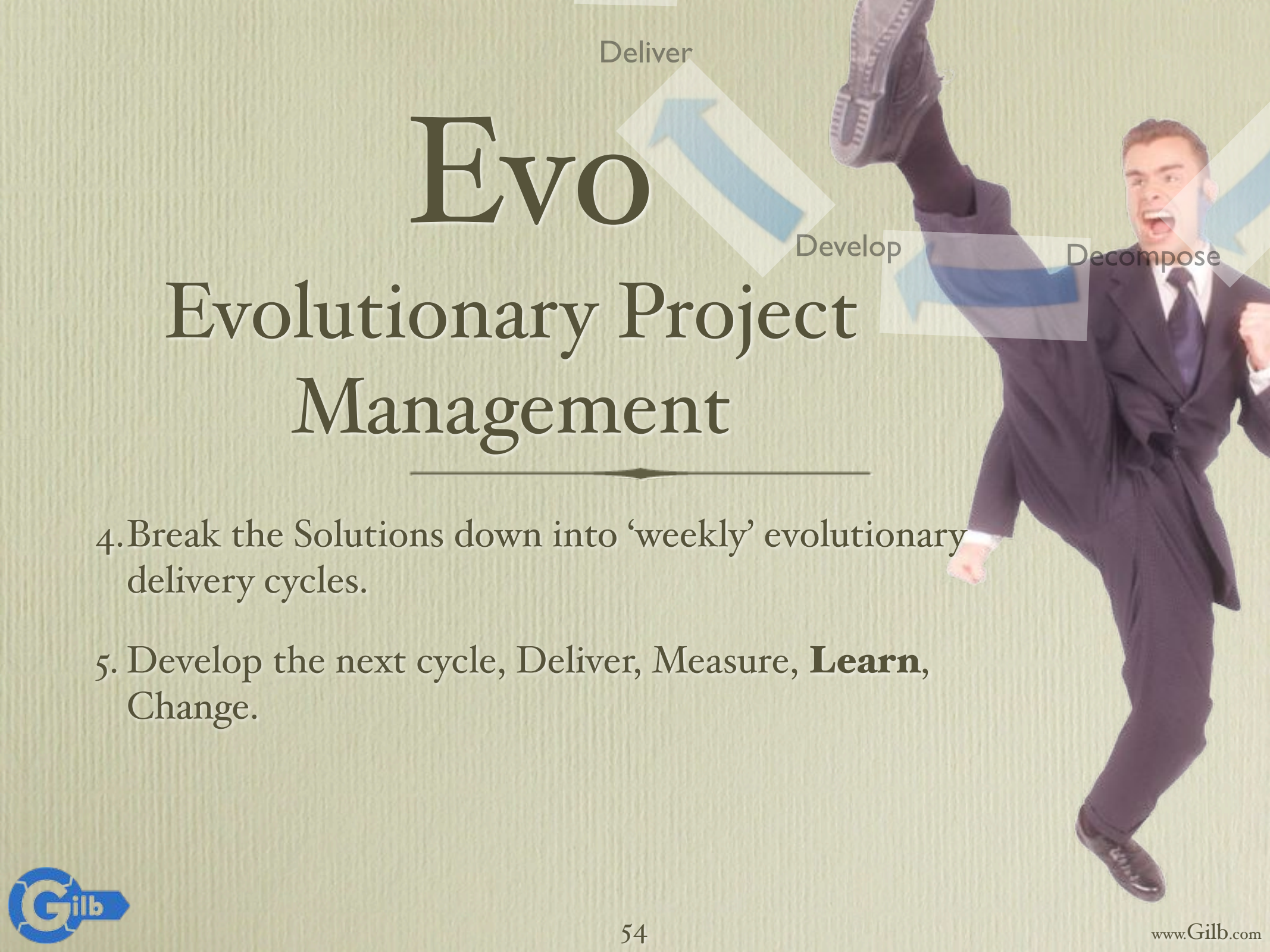
Summary Design Evaluation

Using an VDT, you can evaluate how well a set of solutions will satisfy your set of requirements.



Evo

Evolutionary Project Management



4. Break the Solutions down into ‘weekly’ evolutionary delivery cycles.

5. Develop the next cycle, Deliver, Measure, **Learn**, Change.

deliver
value to stakeholders,
within limited resources.

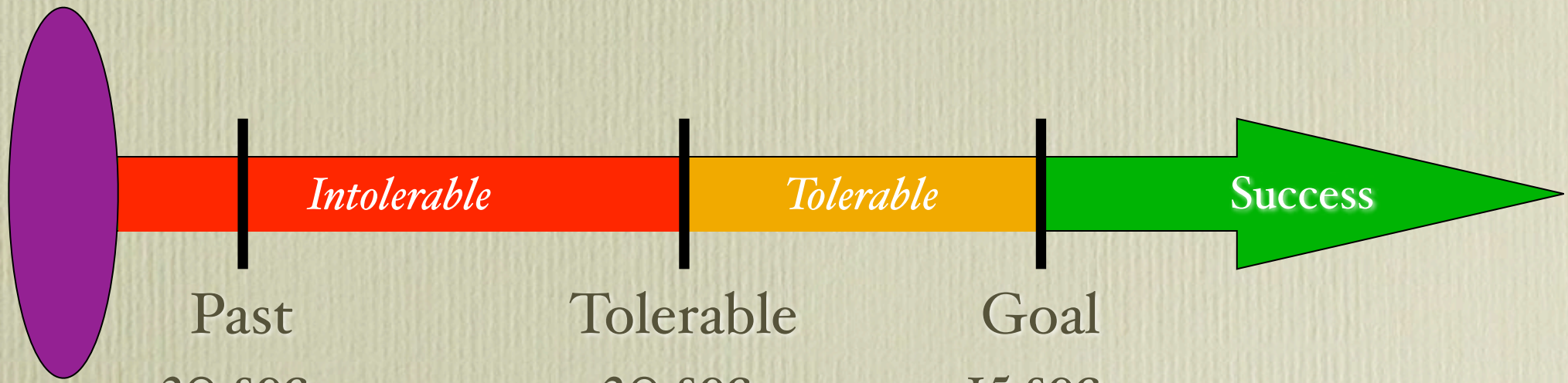
Evo
What I will tell you!

- Any project can be divided into weekly evolutionary delivery cycles.
- Case Study

Evo
For what types of projects?

- We have extensive experience in
  - SW projects (Confirmit, etc.)
  - HW projects (Intel, Boeing, etc.)
  - System projects (HP, Ericsson, etc.)
  - 3rd. world aid projects (Liberating women in Guatamala, etc.)
  - Tiny, huge, Pentagon, China, India, Americas, Europe, medical.

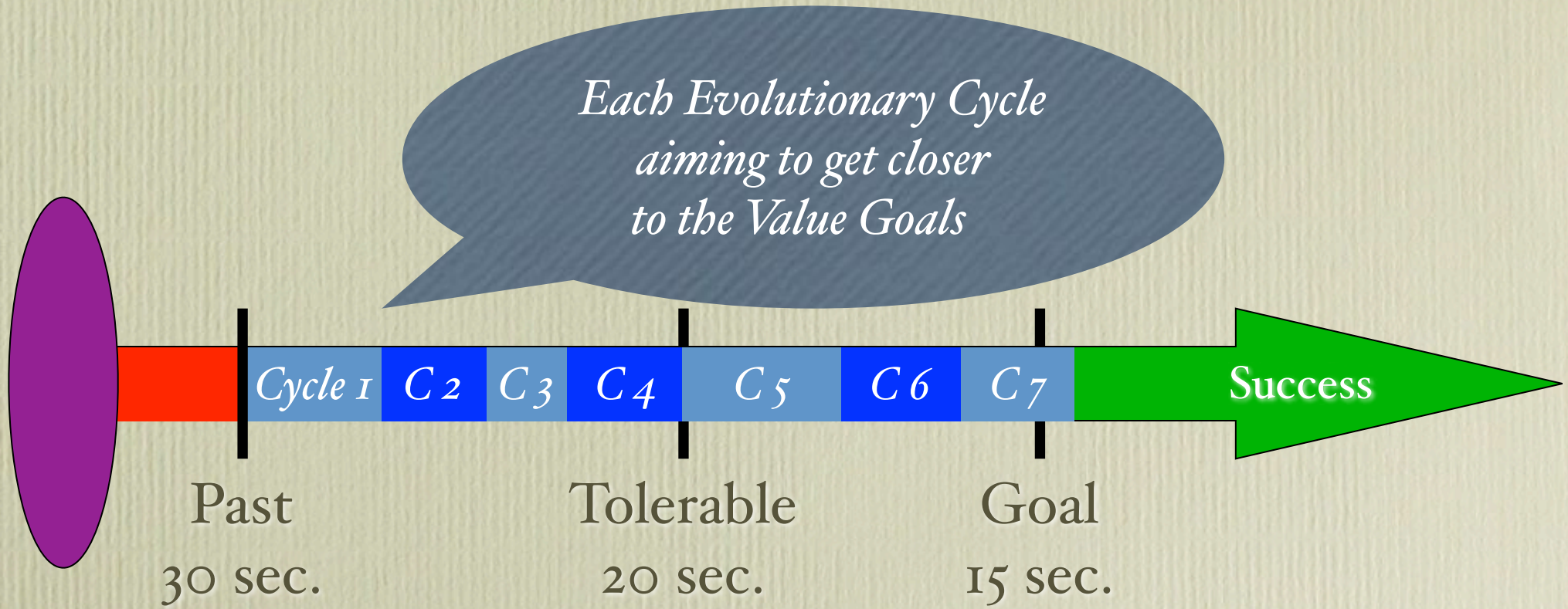
Evolutionary Delivery is driven by meeting Stakeholder-Values & Product-Values



Speed

Scale: seconds to do task

Evolutionary Delivery is driven by meeting Stakeholder-Values & Product-Values



Speed

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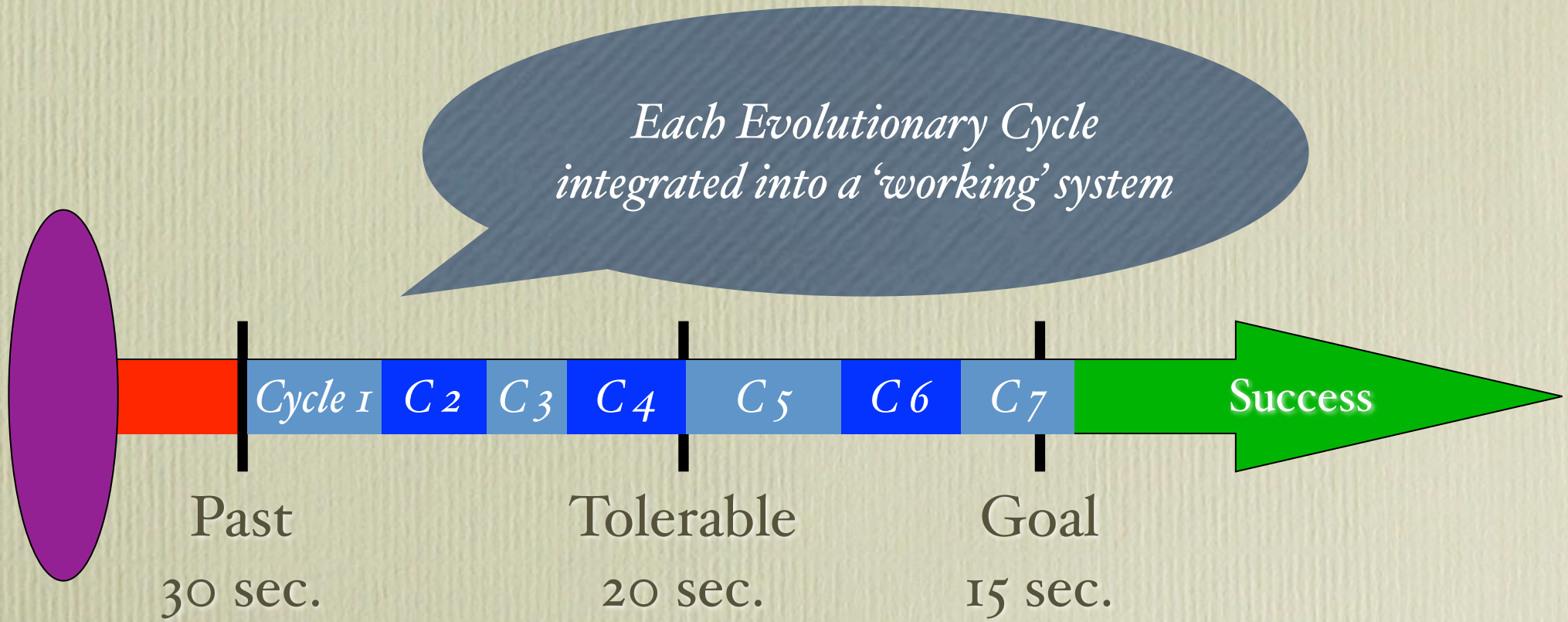
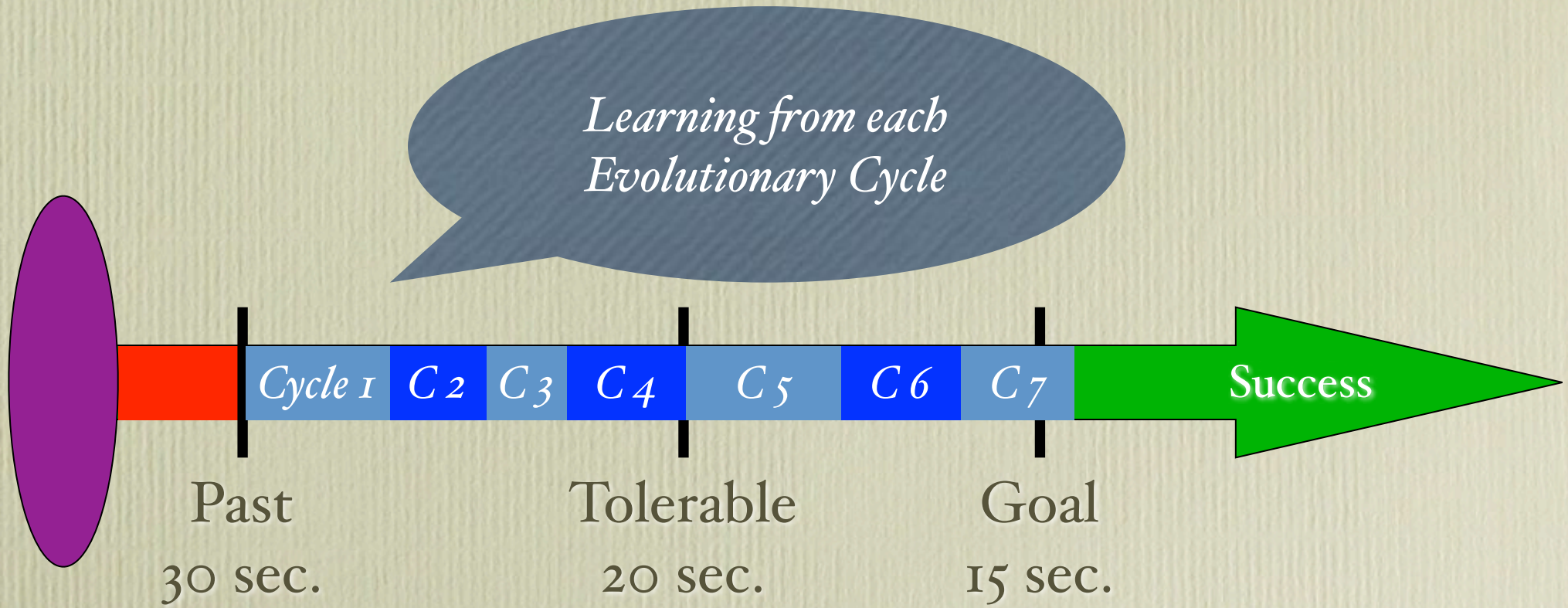


Speed

Scale: seconds to do task

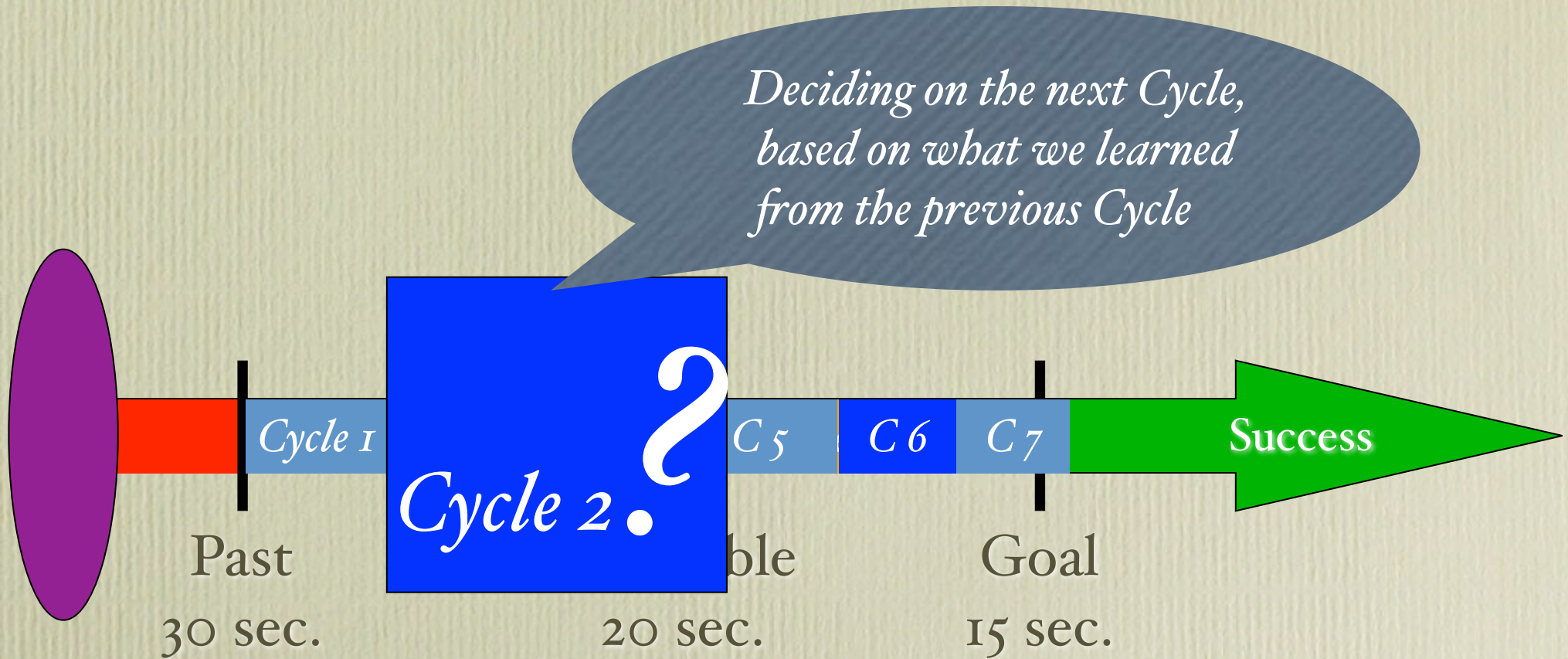
Evolutionary Delivery is driven by meeting Stakeholder-Values & Product-Values



Speed

Scale: seconds to do task

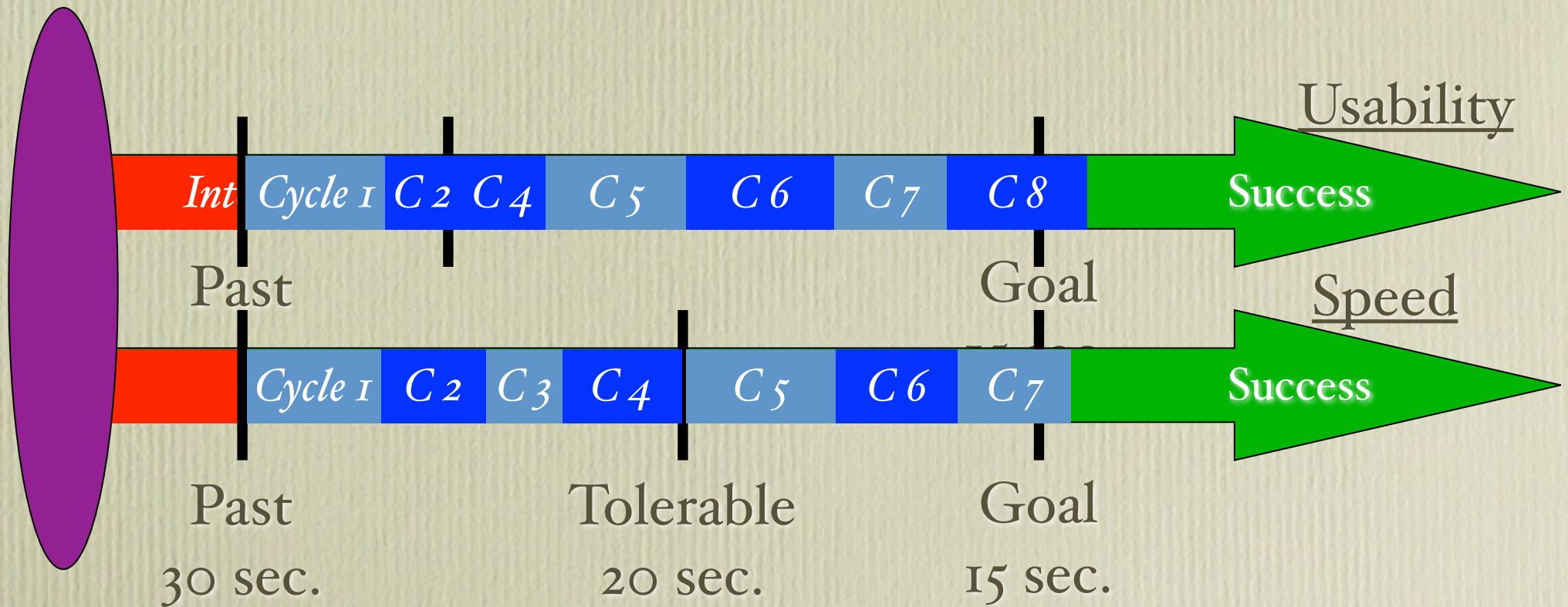
Evolutionary Delivery is driven by meeting Stakeholder-Values & Product-Values



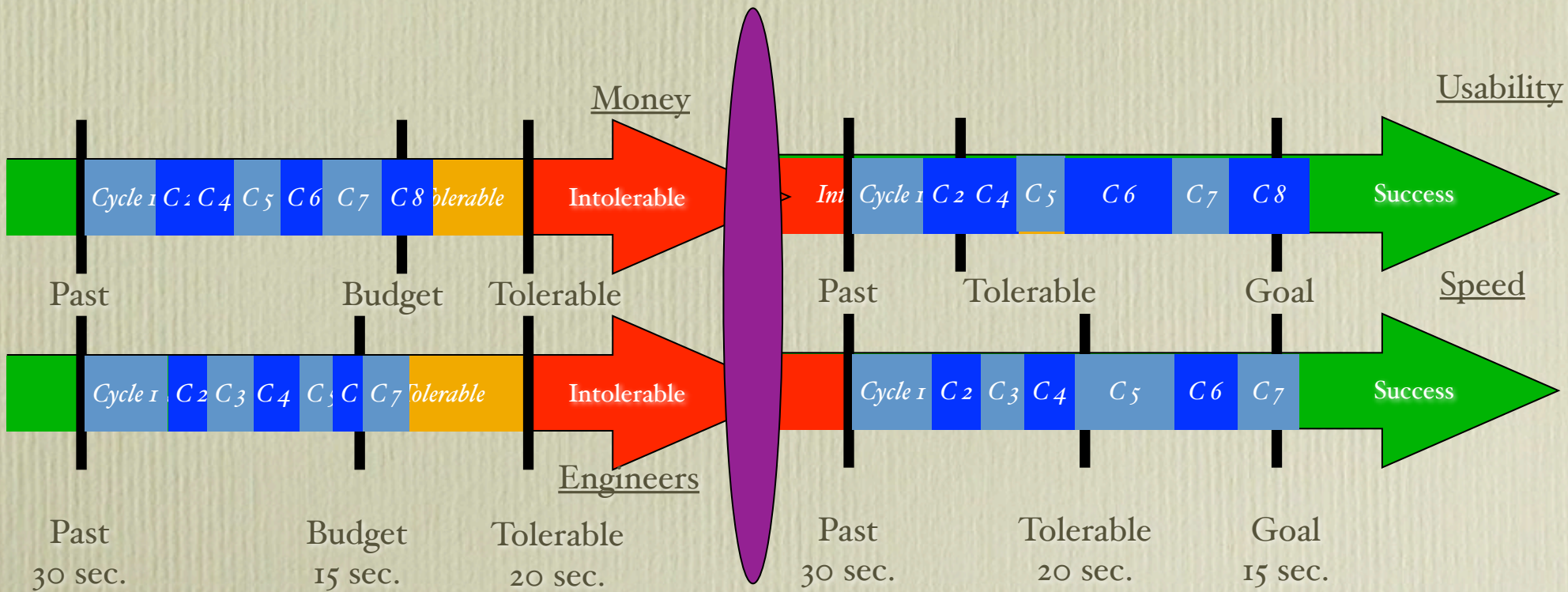
Speed

Scale: seconds to do task

Evolutionary Delivery is driven by meeting Stakeholder-Values & Product-Values Simultaneously



Each Evolutionary Cycle uses a constrained budget of Development Resources



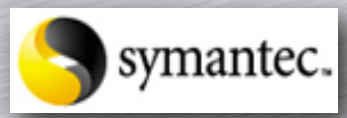
From Waterfall to Evo

confirmit

Future Information Research Management

Tom & Kai Gilb version of Trond Johansen's Presentation
Trond Johansen, QA & Process Manager, Firm AS
Trond.Johansen@firmglobal.com

Customer Successes in Corporate Sector



Paradigm Shift

With EVO, our requirements process changed.

- **Previously** we focused mostly on **function requirements.**
- We realized that **it's the product *Value* requirements that** really **separate us from our competitors**.

Real Requirements Example

Usability.Productivity *(taken from Confirmit 8.5 development)*

Scale: Time in minutes to set up a typical specified MR-report

Past: 65 min,

Tolerable: 35 min,

Goal: 25 min

Meter: Candidates with Reportal experience and with knowledge of MR-specific reporting features performed a set of predefined steps to produce a standard MR Report. (The standard MR report was designed by Mark Phillips, an MR specialist at our London office)

VDT, project step planning and accounting: using an Value Decision 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	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	10	15	5				
10		10,00	10,0	66,0	20	15	5				
11		40,00	0,0	0,0	40	30	10				
12					Usability.Intuitiveness (%)						
13		0,00	0,0	0,0	0	60	80				
14					Usability.Productivity (minutes)						
15		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

EVO Plan Confirmit 8.5

4 more product areas were attacked concurrently

Impact Estimation Table: Reportal codename "Hyggen"

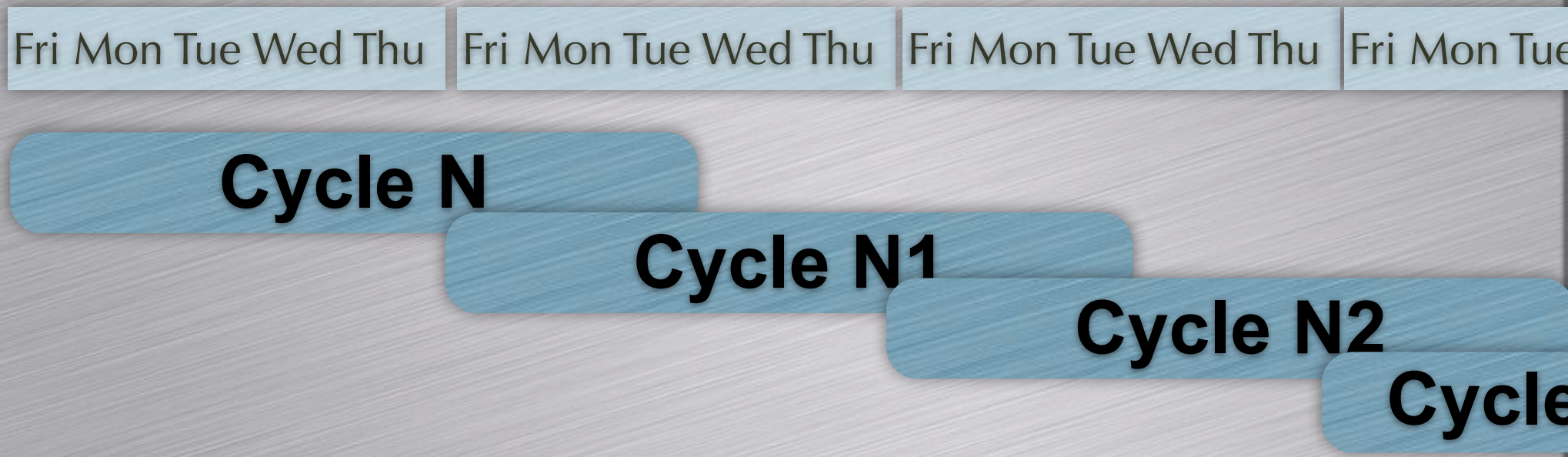
Current Status	Improvements		Reportal - E-SAT features		
Units	Units	%	Past	Tolerable	Goal
			Usability.Intuitivness (%)		
75,0	25,0	62,5	50	75	90
			Usability.Consistency.Visual (Elements)		
14,0	14,0	100,0	0	11	14
			Usability.Consistency.Interaction (Components)		
15,0	15,0	107,1	0	11	14
			Usability.Productivity (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.ExportReport (minutes		
1,0	12,0	150,0	13	13	5
			Usability.ResponseTime.ViewReport (seconds)		
1,0	14,0	100,0	15	3	1
			Development resources		
203,0			0		191

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)		
1350,0	1100,0	146,7	150	500	1000
			Development resources		
64,0			0		84

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

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

FIRM EVO week

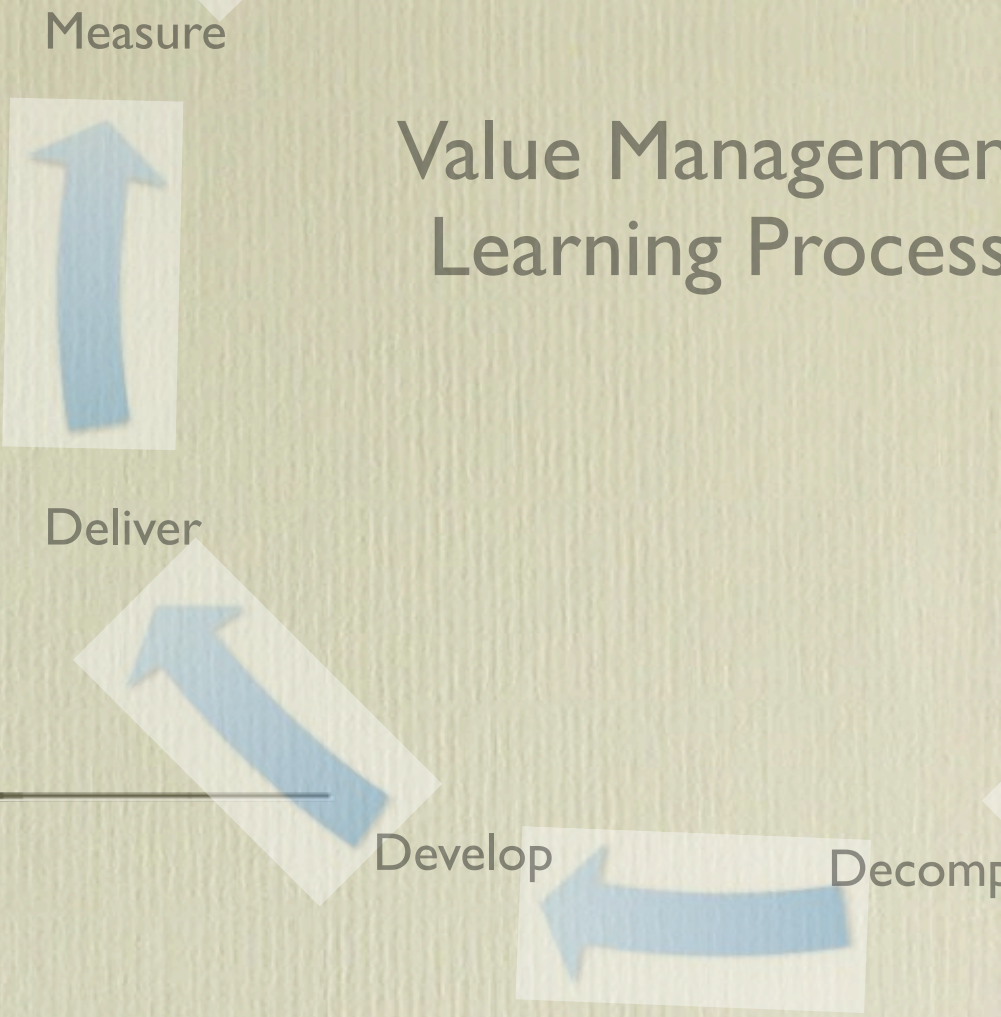


EVO's impact on Confirmit Product-Values

- Only highlights of the 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

Summary Evo



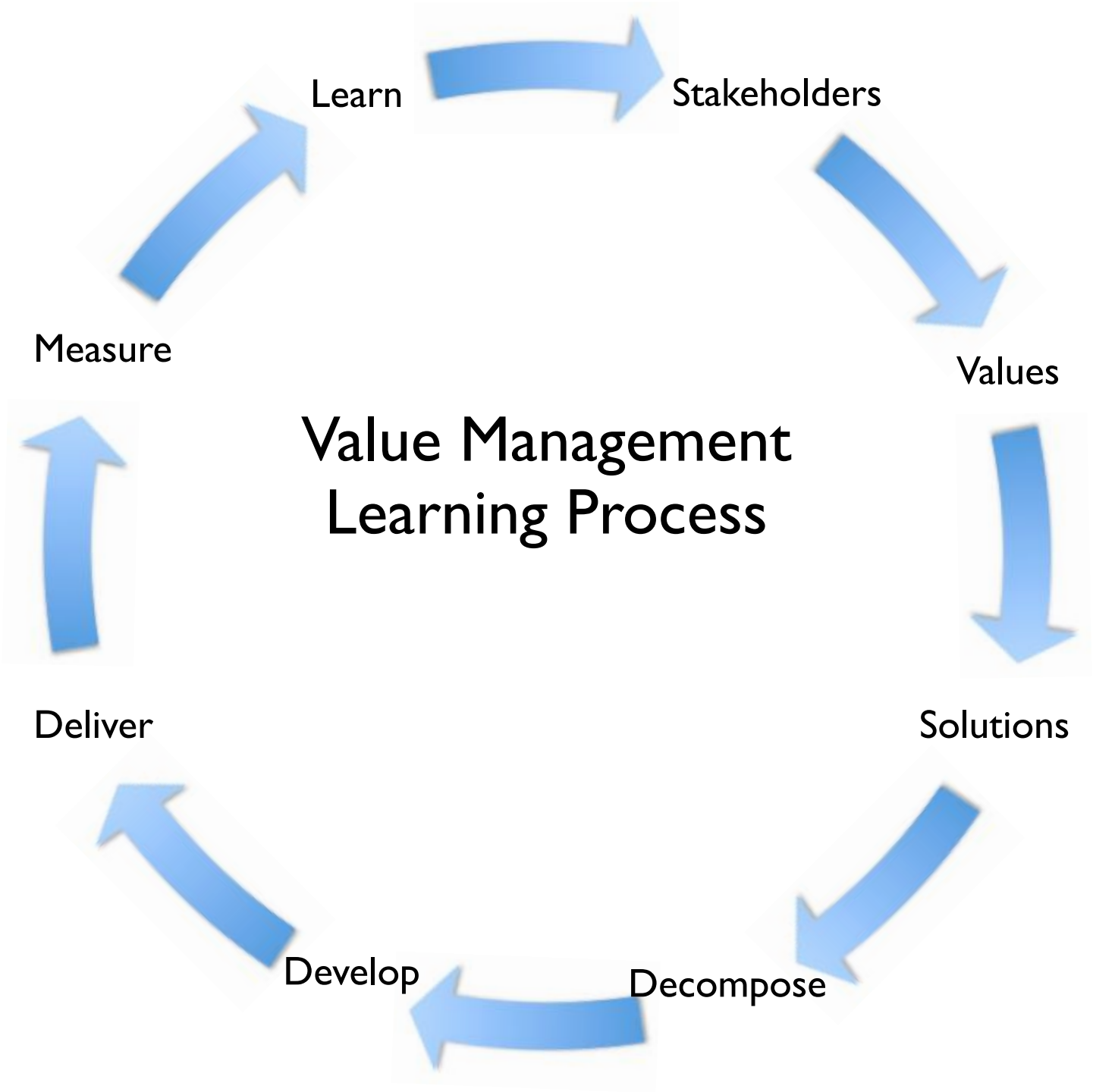
Summary Evo

- Any project can be divided into weekly evolutionary delivery cycles.
- Our clients are reporting unmatched success.

Summary Talk

Values - VDT - Evo

Value Management



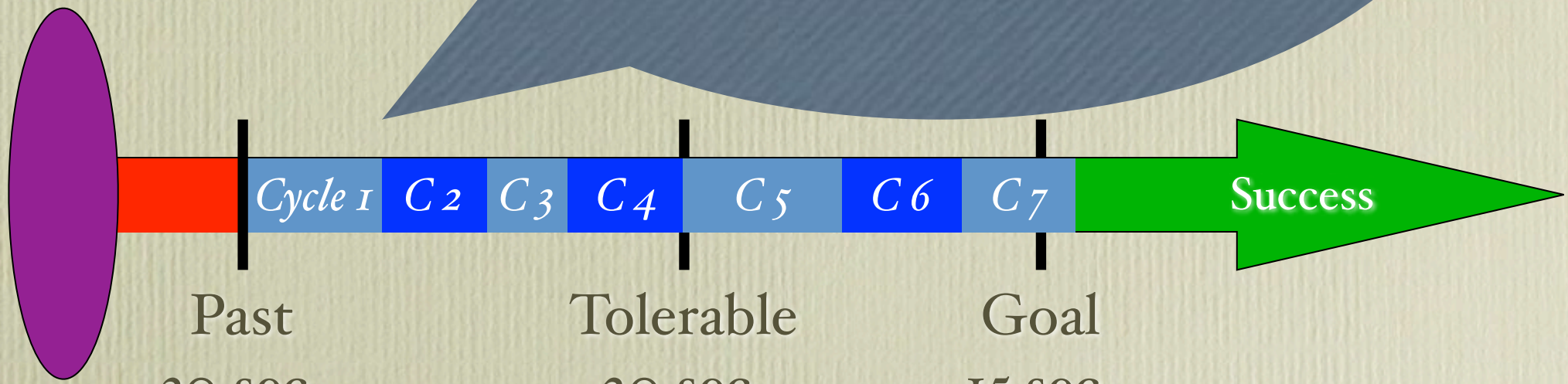
deliver
value to stakeholders,
within limited resources.

Quantify

Product Value and Stakeholder-Values

Using an VDT, you can evaluate how well a set of solutions will satisfy your set of requirements.

Each Evolutionary Cycle aiming to get closer to the Value Goals



Speed

Scale: seconds to do task

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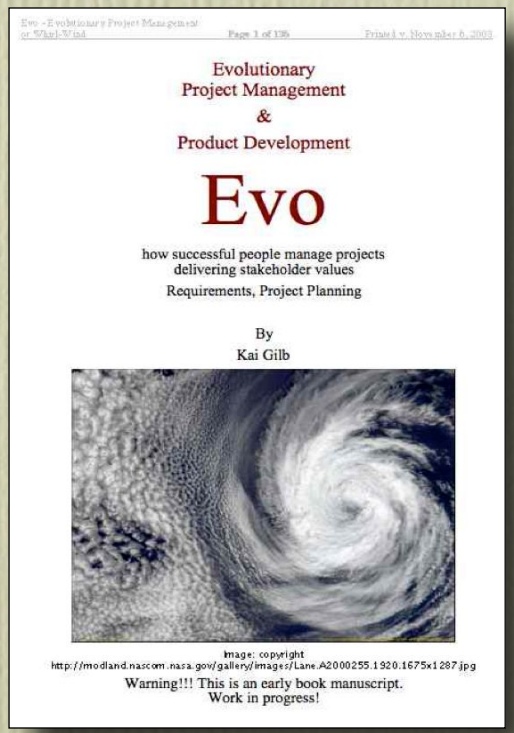
Evo - Evolutionary Project Management or Wild-Wild Page 1 of 136 Printed v. November 6, 2003

Evolutionary
Project Management
&
Product Development

Evo

how successful people manage projects
delivering stakeholder values
Requirements, Project Planning

By
Kai Gilb

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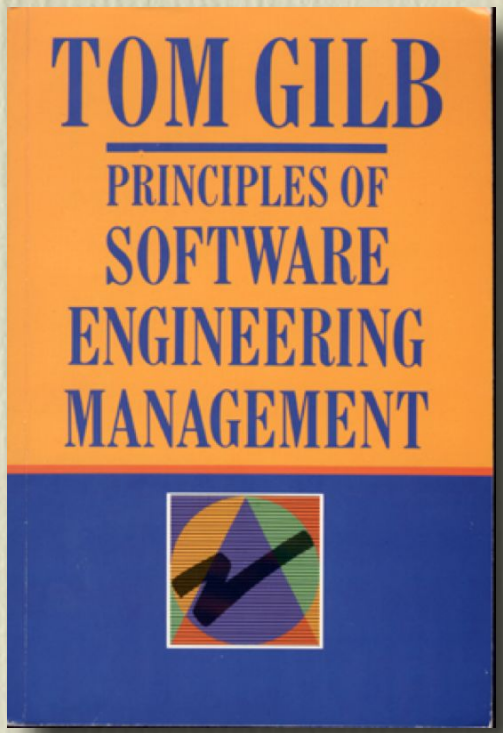
Warning!!! This is an early book manuscript.
Work in progress!



and lots of material on www.Gilb.com

Kai@Gilb.com

Thank you!

questions?