



Stop Thinking About Requirements Quality

Focus on Value

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Vice President of Research and Development
Seilevel

Role: Develop new elicitation and modeling methodologies, build business analysis centers of excellence, train industry BAs, work on projects as a Business Architect



Community contributions:

- Member of the IIBA BABOK v3 Core Team
- Industry PC for IEEE Requirements Engineering
- Co-chair for Requirements Engineering Education and Training Workshop
- Previous IIBA® Austin Chapter VP of Education
- IREB team member

Co-Author:

- *Visual Models for Software Requirements* with Anthony Chen
- *Software Requirements, 3rd Ed.* with Karl Wieggers

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Agenda

What's the Question?

Quantifying Value

Measuring Requirements Success

Our Results

Next Steps

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Am I doing a good job?

How do I measure my BA team's performance?

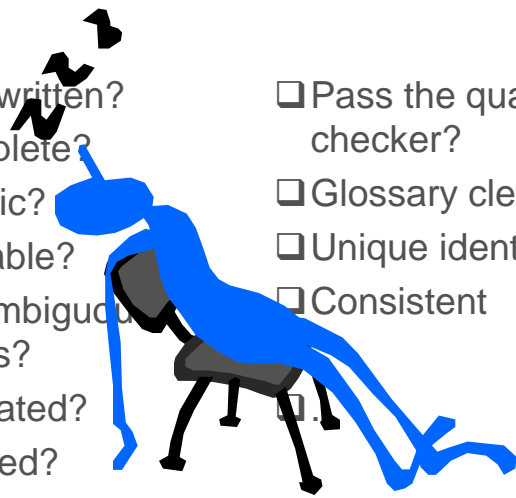
Our CIO wants to cut the BA team back; how do I show our value?

Developers don't think my requirements are very good; are they right?

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Measuring Requirements Quality



<input type="checkbox"/> Well written?	<input type="checkbox"/> Pass the quality checker?
<input type="checkbox"/> Complete?	<input type="checkbox"/> Glossary clear?
<input type="checkbox"/> Atomic?	<input type="checkbox"/> Unique identifiers
<input type="checkbox"/> Testable?	<input type="checkbox"/> Consistent
<input type="checkbox"/> No ambiguous words?	
<input type="checkbox"/> Validated?	
<input type="checkbox"/> Verified?	


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Requirements Quality = Wrong Measurement!

Business Value = Right Measurement





**Requirements:
A means to an end**

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Resources are focused on the wrong thing!

Google search results

measuring requirements quality	measuring business value
Web Images Shopping Video	Web Shopping Images N
About 69,400,000 results (0.44 seconds)	About 6,540,000 results (0.52 seconds)

69 million results

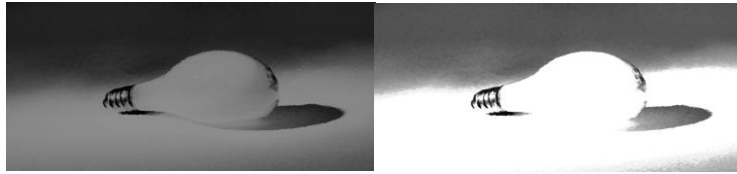
6 million results

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Google search results: March 2014

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Does Anyone See the Light?



Poor requirements =
confused developers

End goal focus over the
process itself

Complete, consistent,
bounded, affordable =
good requirements

Requirements success =
customer results (and cost
effectiveness)

Good requirements =
project "success"
(undefined!)

Future requirements
research should relate to
revenue growth

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A Mission for Requirements Practitioners

1. Figure out what business value we should deliver
2. Measure whether we delivered the value



Business Objectives

Business benefit that an organization expects to receive

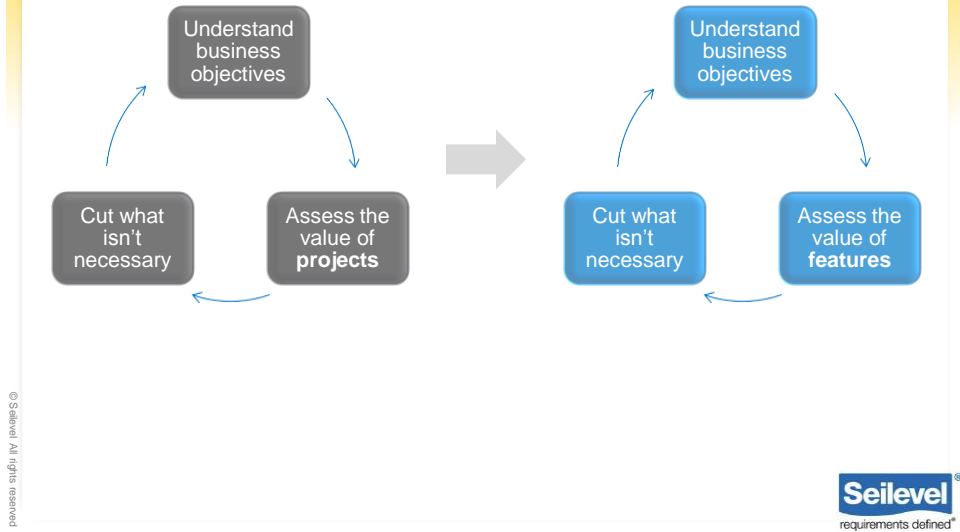
Increase **revenue** or cut **costs**



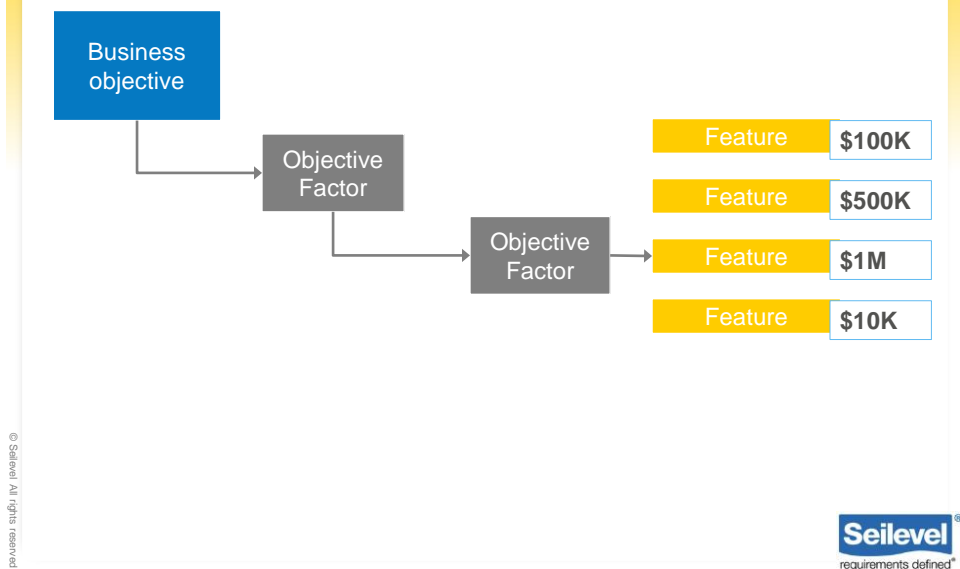
Example

Reduce chemical purchasing expenses from 1M to 750K in the first year

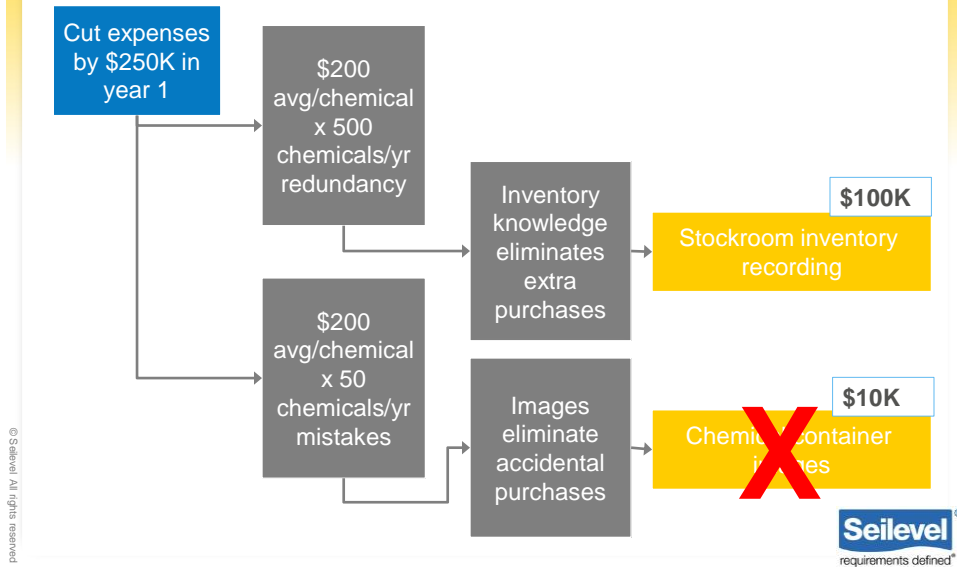
Prioritizing Projects and Features



Objective Chains: Quantify the Value

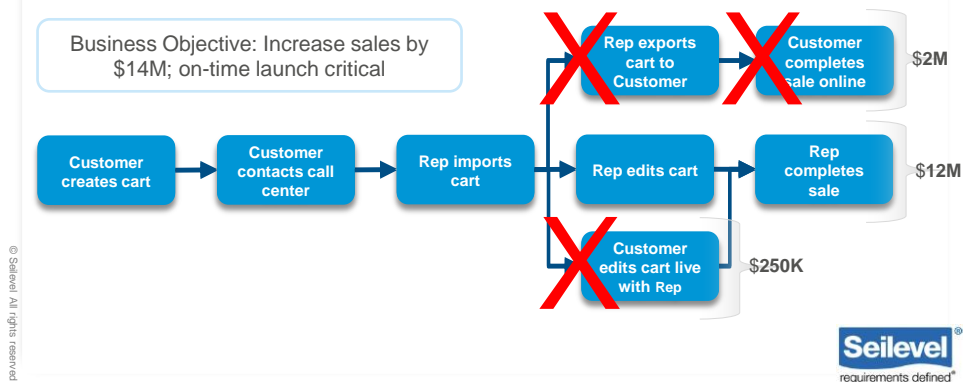


Example: Quantifying the Value of Features



Requirements Methodology Success Story

Problem	<ul style="list-style-type: none"> Shared cart had to launch by holiday season to achieve any ROI
Risk	<ul style="list-style-type: none"> Missing deadline would net \$0, ROI (potential ROI was \$14M)
Solution	<ul style="list-style-type: none"> Seilevel analysis revealed scope would lead to \$0M and cut scope to achieve \$12M ROI



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Our Results

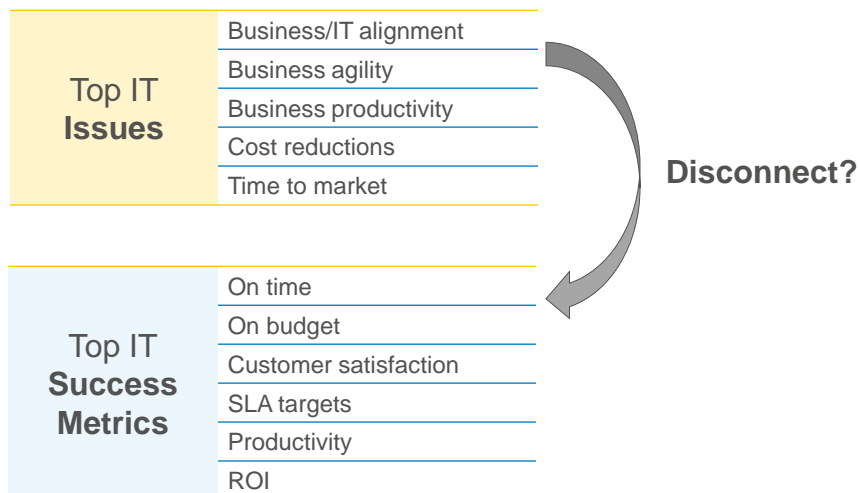


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CIOs Aren't Thinking About Requirements

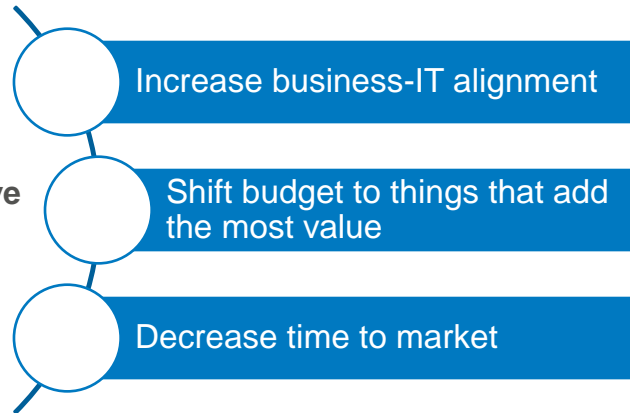


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*2013 SIM IT Trends Study, Leon Kappelman, PhD, Primary Investigator



Top IT Executive Goals

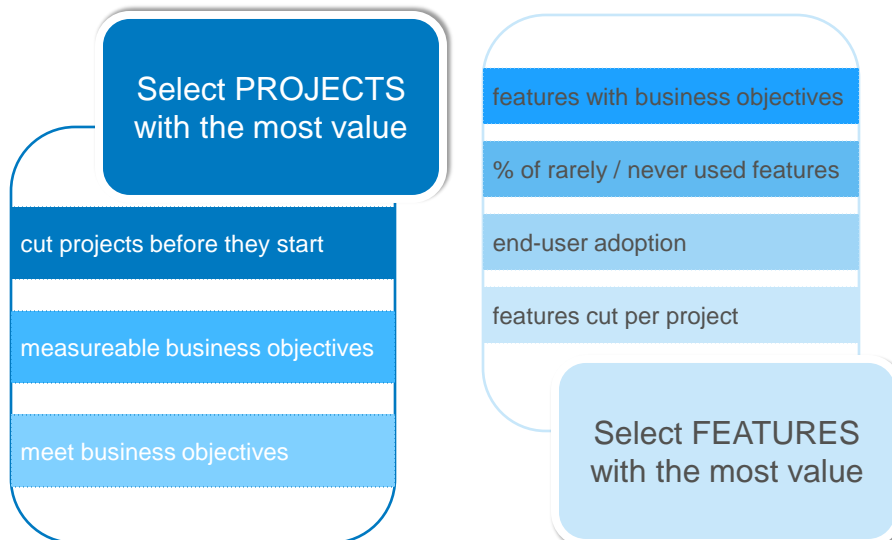


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Based on: Borland's "When Agile and Waterfall Collide" seminar Jan 2013, Seilevel research and customer experiences

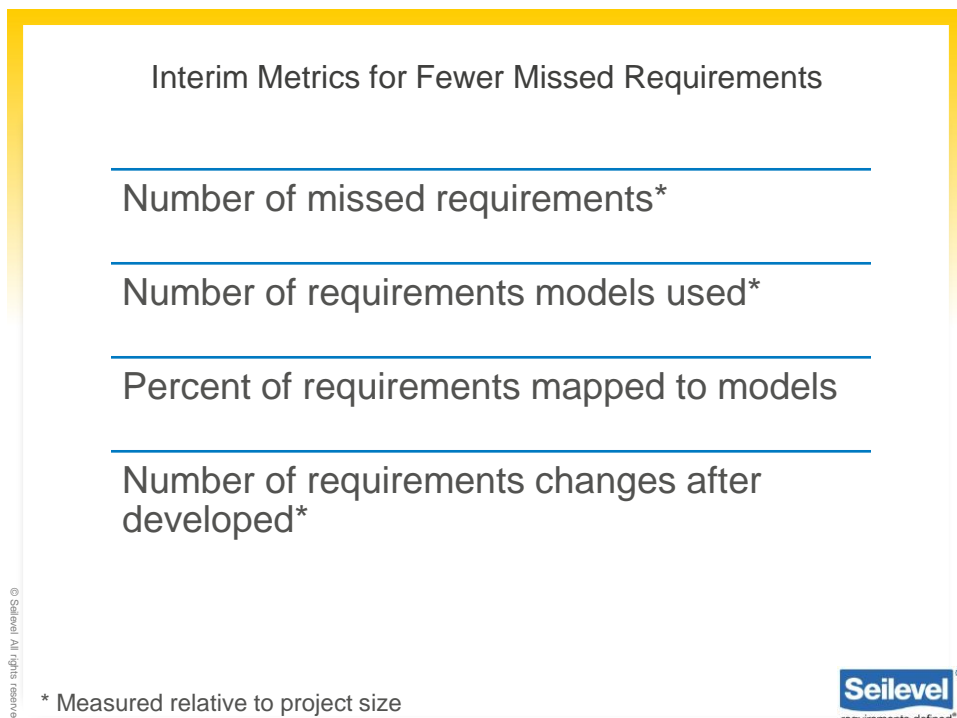
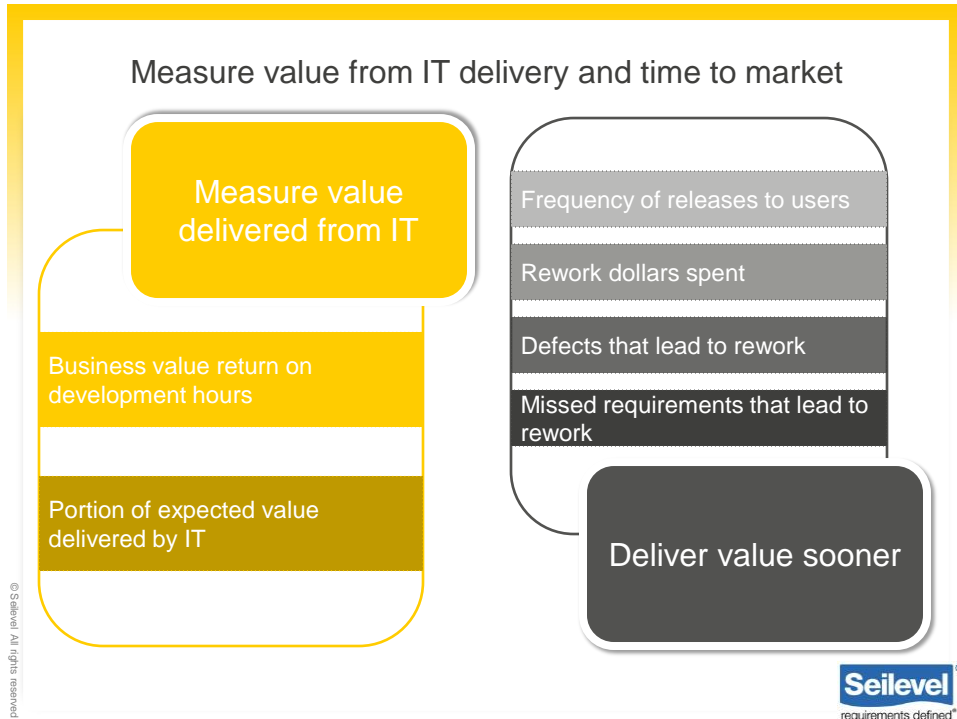
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Increasing business – IT alignment



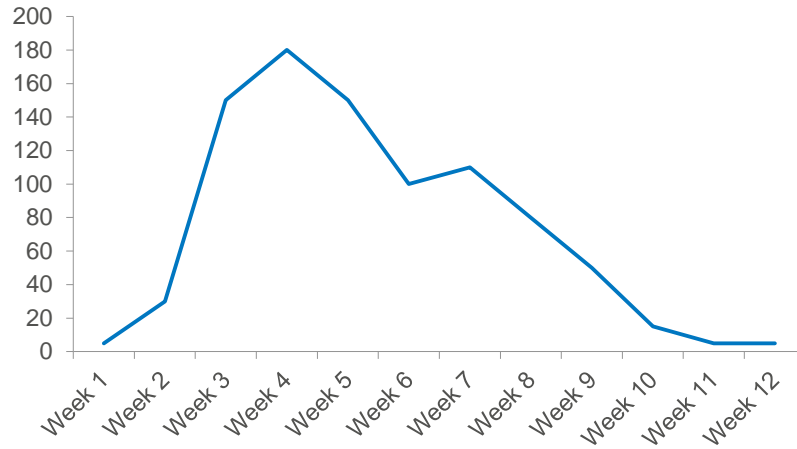
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Interim Metrics for Requirements Completeness

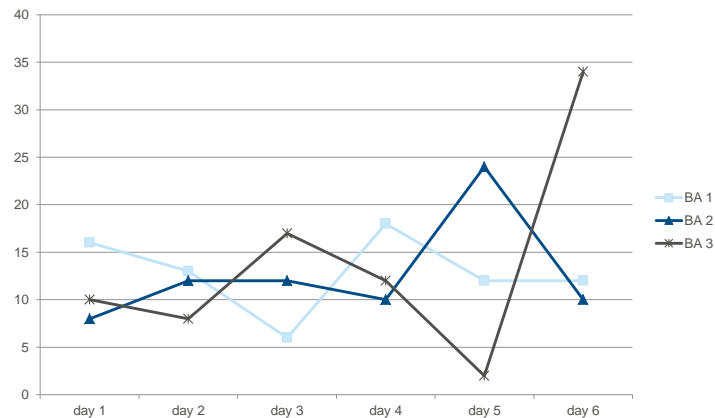
Number of Open Issues



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Interim Metrics for Requirements Team Productivity



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Requirements touched per day &
Velocity of requirements change

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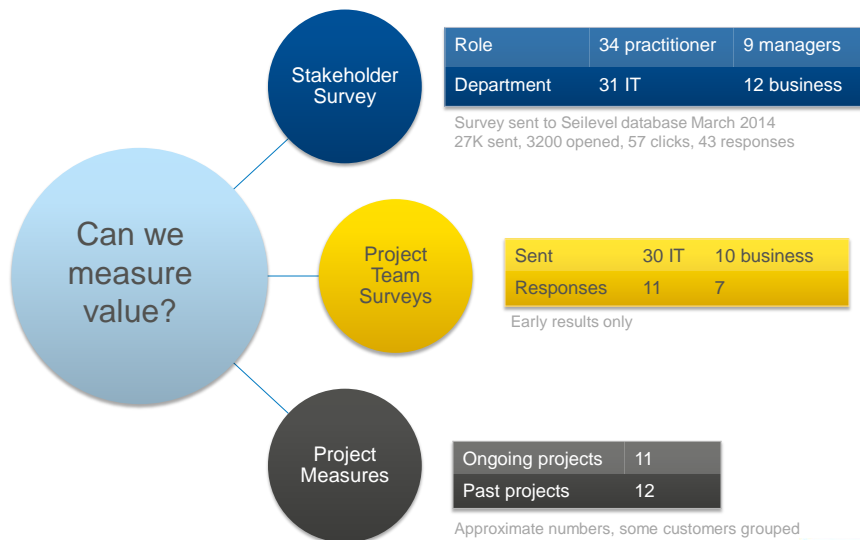


Next Steps

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Surveyed Seilevel Database and Analyzed Actual Projects

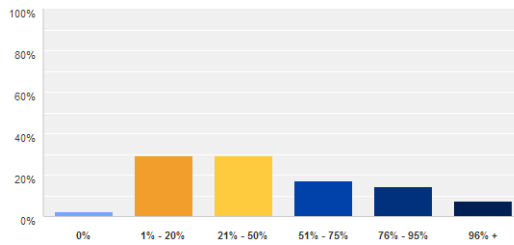


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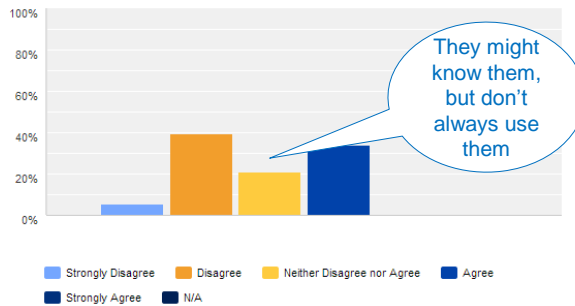


Are Projects Measuring Business Objectives?

Projects that know measurable business benefits



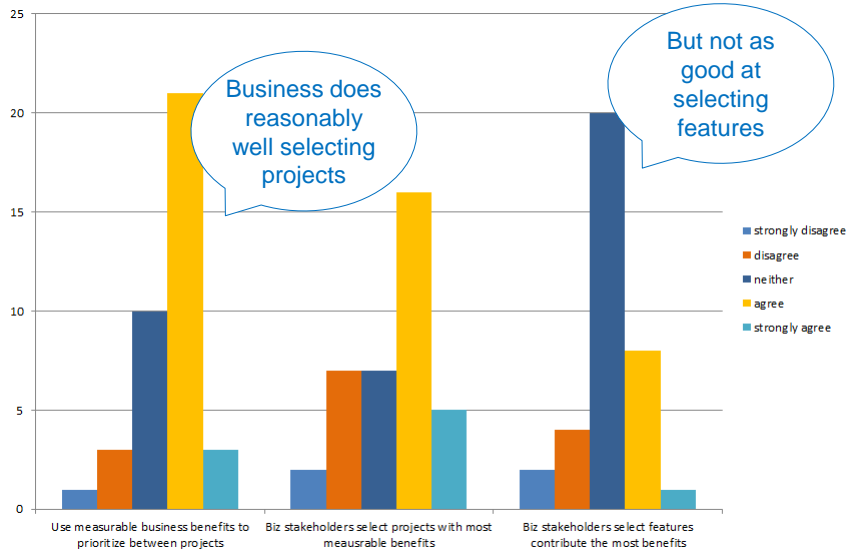
Projects that know the measurable benefits well enough to prioritize features



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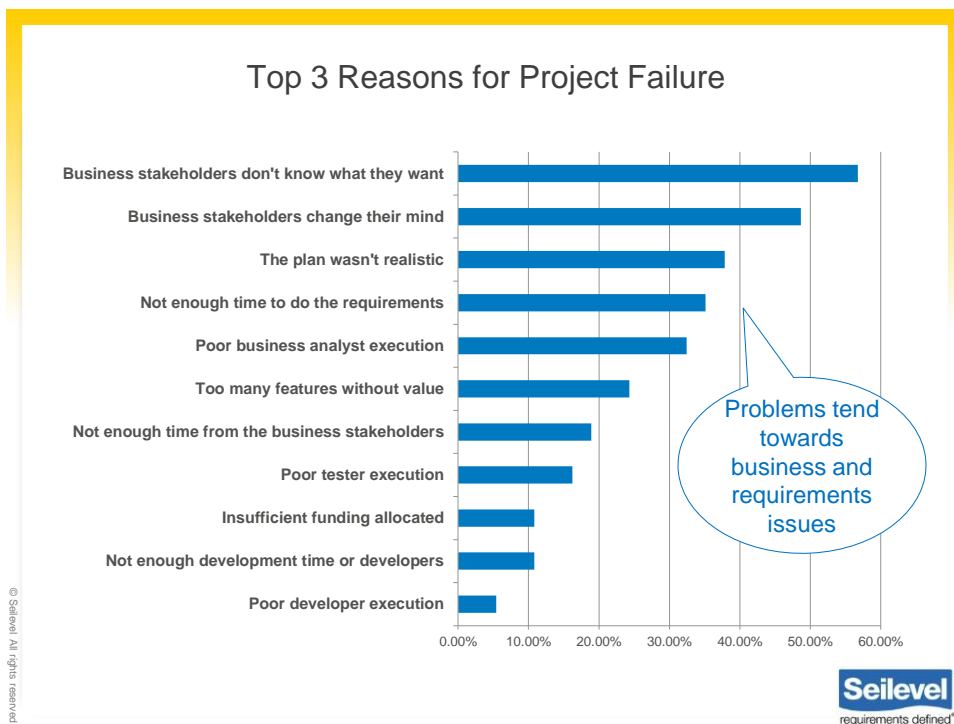
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Does Business Prioritize Using Value?

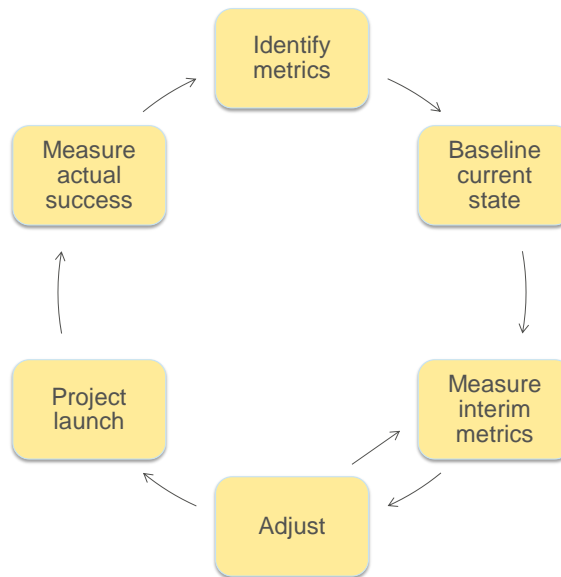


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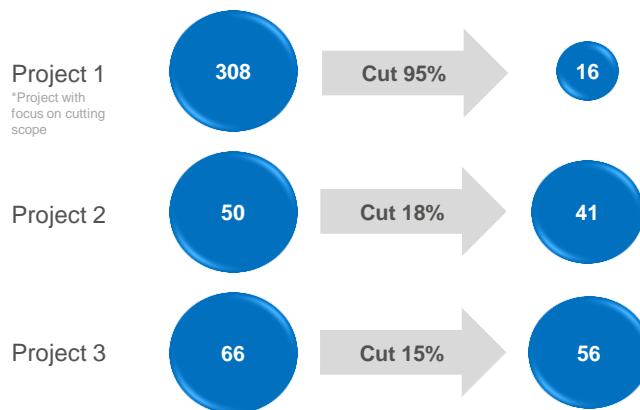
Seilevel Project Approach to Measuring Success



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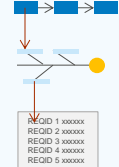


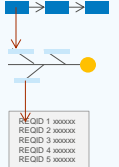

Examples of Cutting Features



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Ideal Numbers of Models Used

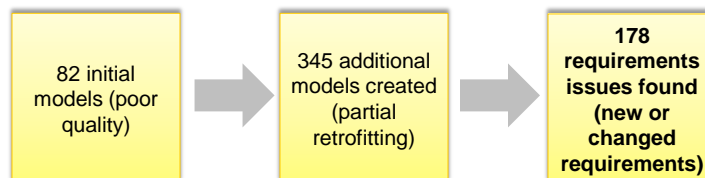
	Project 1	Project 2	Project 3	Project 4	Project 5
Models	102	149	345	59	44
Process Flows	62	88	74	37	20
User Stories	419				74 epics 375 stories
Requirements		109 business, 2500 functional	1490	308	698 acceptance criteria
Requirements Traceability					

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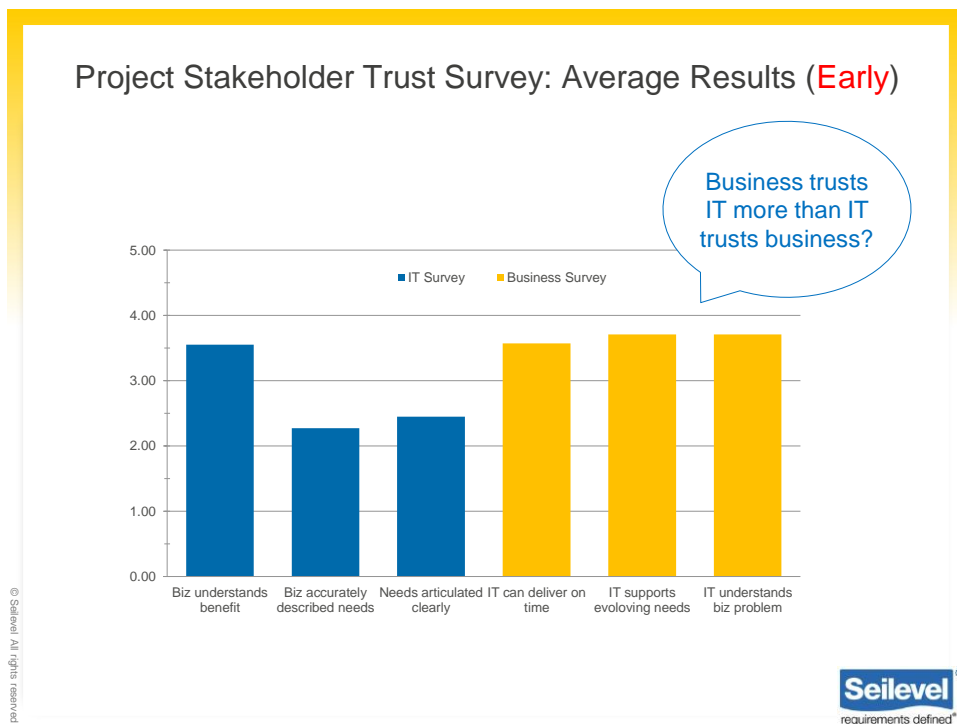
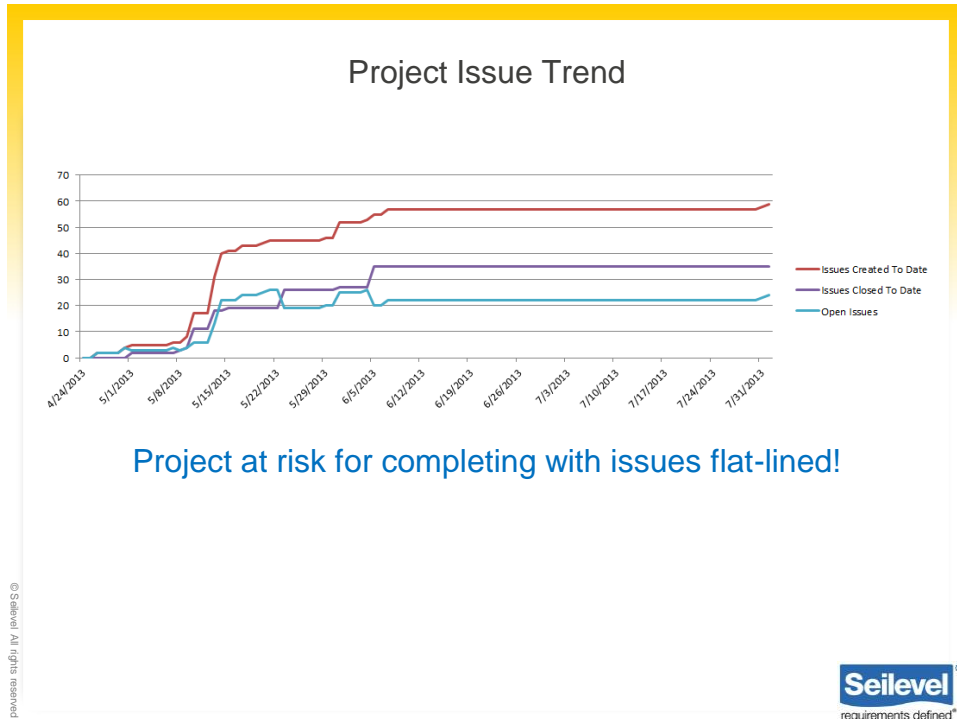
Models to Identify Requirements Gaps

27 mostly text-based requirements documents with 1490 requirements
 Team partially retrofitted requirements with models to identify gaps



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Seilevel Research Future Path

Challenges



- ☐ Not much existing data
- ☐ Teams don't understand projects' impact/measurable objectives
- ☐ Measurements varied significantly by customer and project

Next Steps



- ☐ Focus on fewer metrics for each team
- ☐ Collect more data (constant reminders)
- ☐ Set measureable business objectives - baselines now, measures at end

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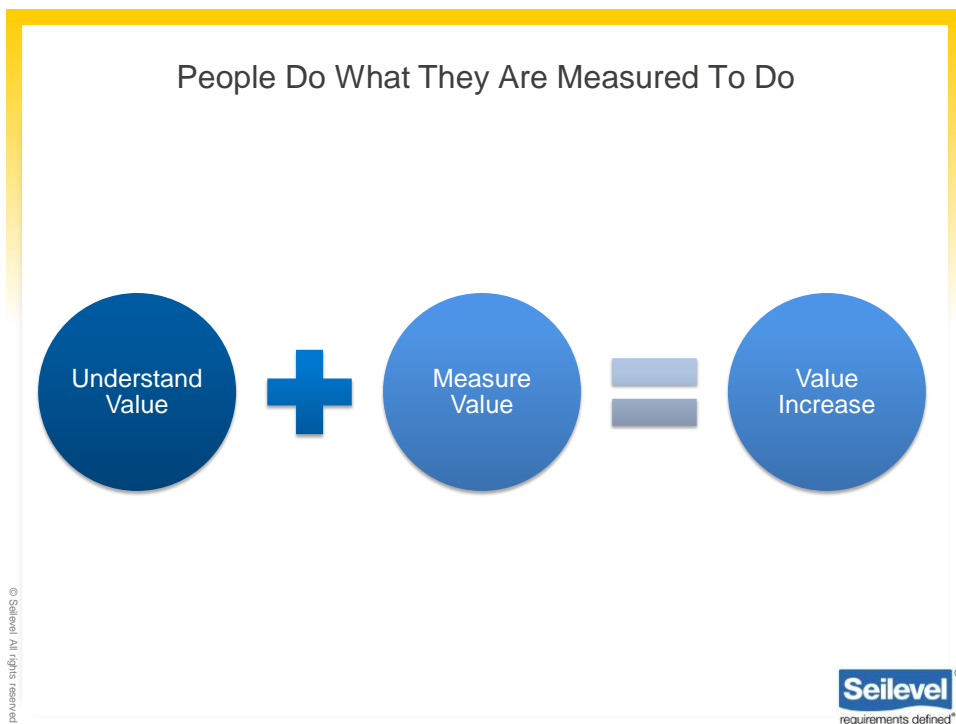
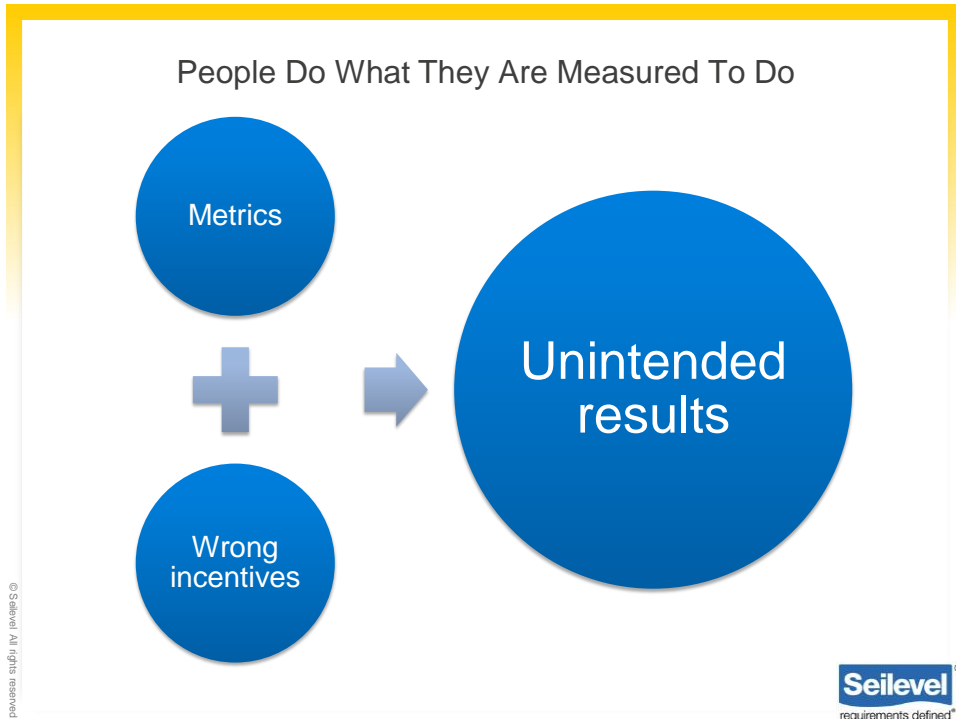
Our Results



Next Steps

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Challenges

- ! Can't measure until projects are over (and teams are gone)
- ! Data doesn't exist today
- ! Measuring takes extra time
- ! People don't want to be held accountable for actual results

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What's Next?



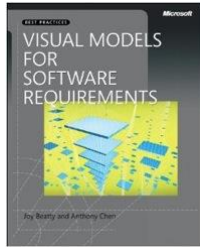
Good Practices for Measuring Value

- Business objectives focus
- Cut minimal value projects
- Link requirements to business objectives
- Select the right metrics
- Measure and improve

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Read More



- *Software Requirements, 3rd Edition* (Wieggers and Beatty 2013)
- *Visual Models for Software Requirements* (Beatty and Chen 2012)
- Business Objective Chains White Paper www.seilevel.com

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