

Calculating Business Value

The Key to Maximizing Value Delivery



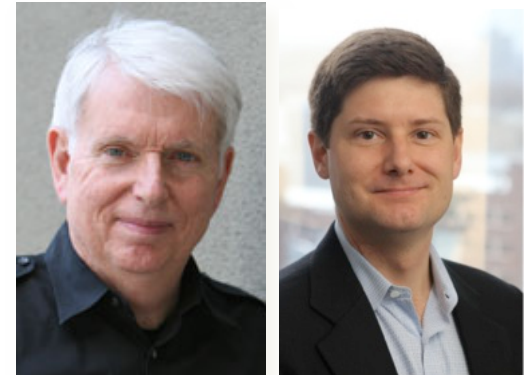
Hosts: Alex Brown
Jeff Sutherland

scruminc.: Who We Are

Scrum Inc. is the Agile leadership company of Dr. Jeff Sutherland, co-creator of Scrum. We are based in Cambridge, MA.

We maintain the Scrum methodology by:

- Capturing and codifying evolving best practices,
- Conducting original research on organizational behavior
- Adapting the methodology to an ever-expanding set of industries, processes and business challenges



We also help companies achieve the full benefits of Scrum through our full suite of support services:

- Training (Scrum Master, Product Owner, Agile Leadership, webinars, etc.)
- Consulting (linking Scrum and business strategy, customizing Scrum)
- Coaching (hands-on support to Scrum teams)
- Publishing and new content development

We run our services company using Scrum as the primary management framework, making us a living laboratory on the cutting edge of “Enterprise Scrum”

Find out more at www.scruminc.com.

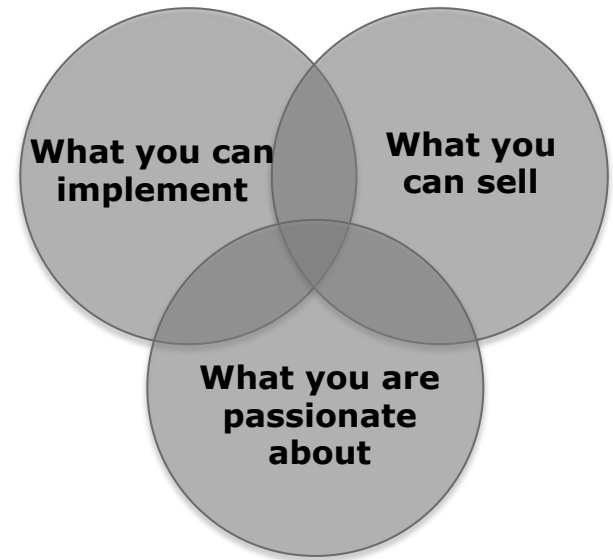
Agenda

- What do we mean by business value
 - Sources of business value
 - Different ways to measure business value
- How Scrum Inc. addresses business value
 - Tiered work streams
 - Our cadence and approach
 - NPV per point as a unifying metric
- Deep dive into NPV/point analysis
 - Examples for different Epic types

What Is Business Value?

Business Value results from the intersection of three dimensions

1. What you can implement successfully and sustainably
2. What your customers want and will buy (even if they don't know it yet)
3. What your team is excited about creating



Should be an explicit consideration of the organization

- Estimate at Epic rather than User Story level
 - What is the source of value that will be created?
 - How much effort will it take to create that value?
- Prioritize Epics by ROI (most value with the least effort)
- Coordinate with your Finance Department
 - They already have a view of production function and ROI metrics
 - Engage them as an ally – they will love that you are speaking with them

Sources of Business Value

Market Value

Will this feature allow us to:

- Sell more units?
- Charge a higher price?
- Reduce the cost of providing the product/service?

Risk Reduction

How will completing this story allow us to:

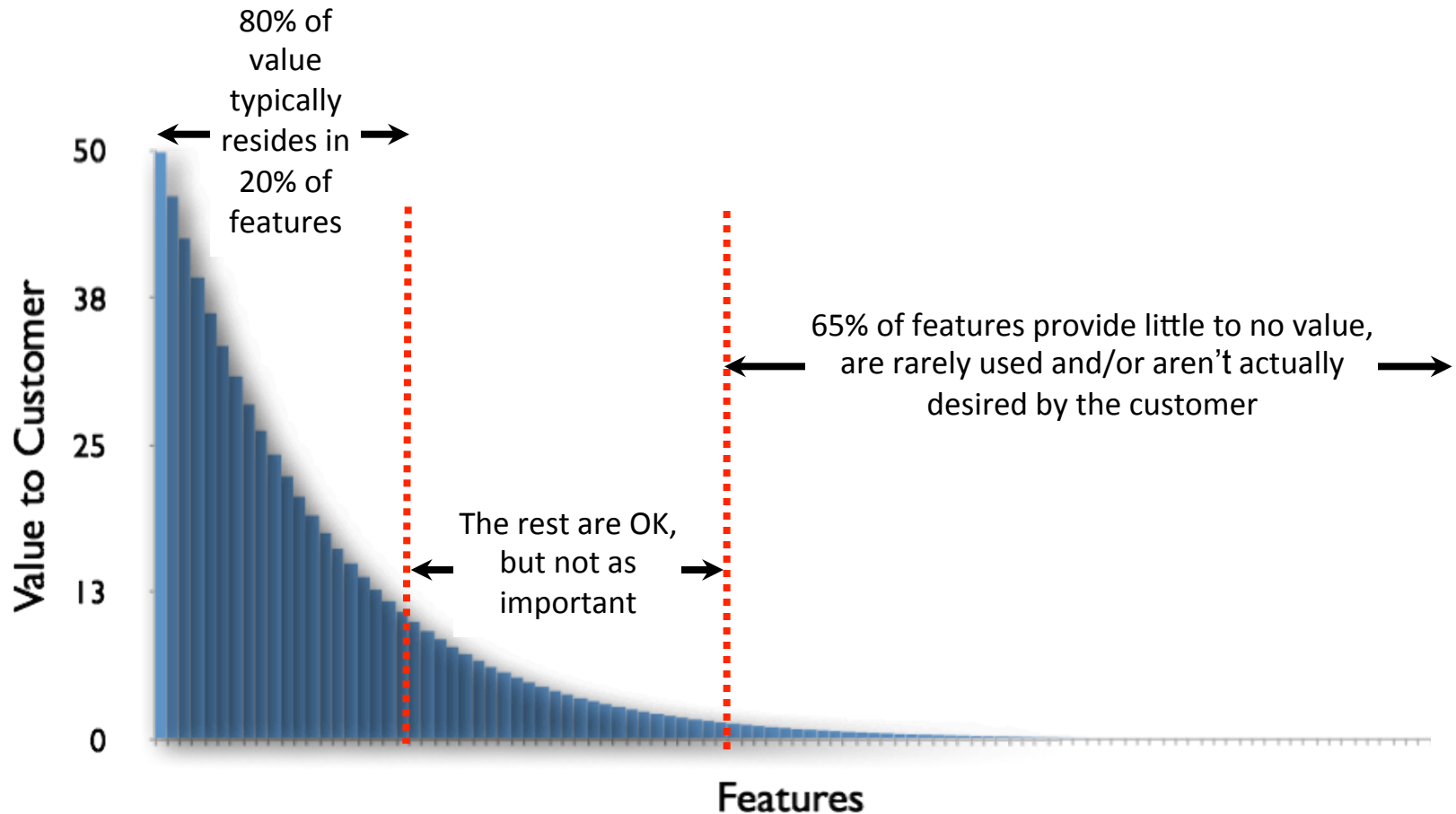
- Develop or refine hypotheses about the market?
- Prove technical assumptions?

Capability Building

Will completing this story:

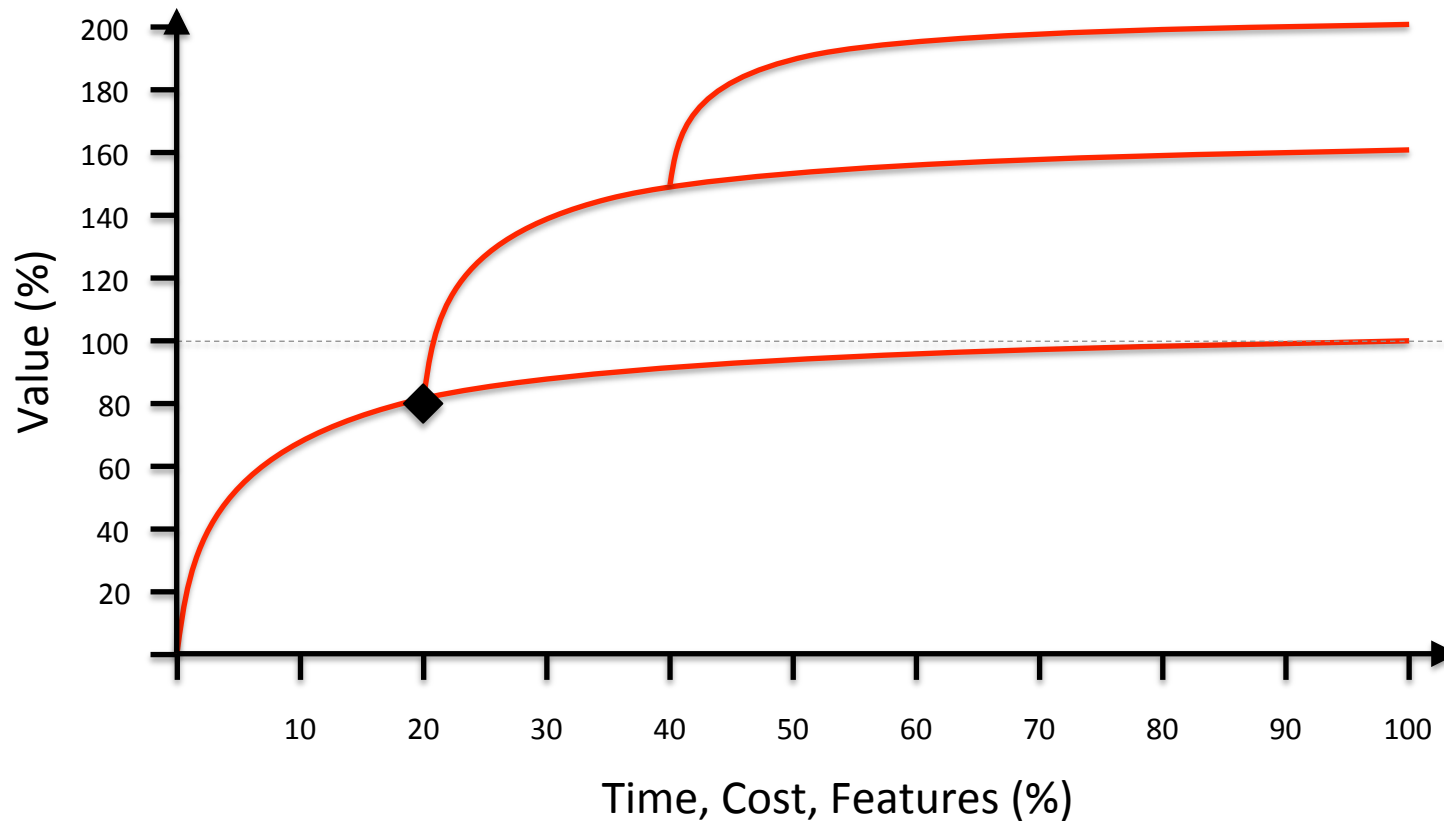
- Enable our team to do something we couldn't before?
- Reduce or eliminate the need for low-value activity?

Not All Features Are Created Equal!

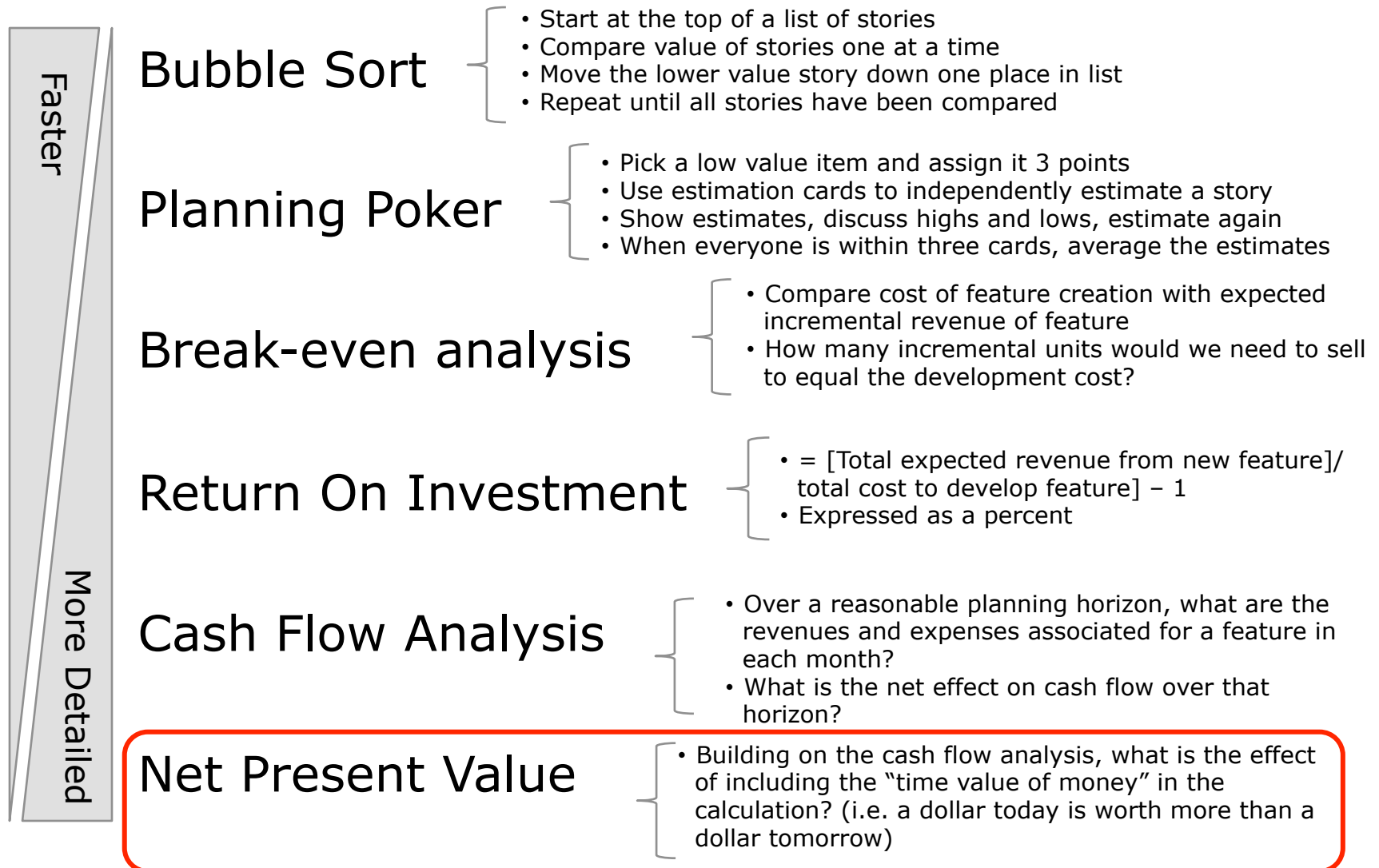


How can you tell ahead of time which features add value and which don't?

Prioritizing Features Effectively Can Deliver Radically More Business Value



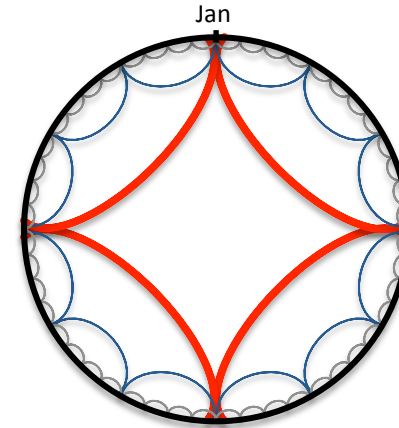
Methods for Determining Value



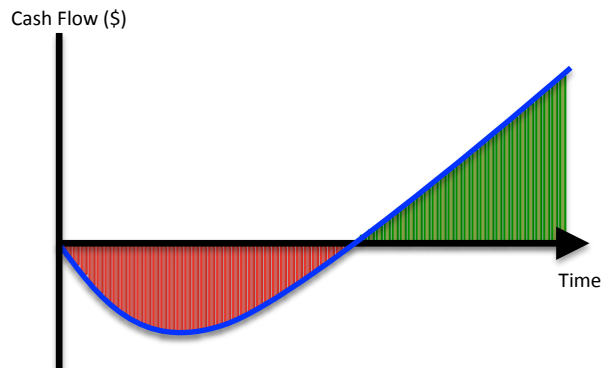
Four Pillars to Scrum Inc.'s Business Value Process



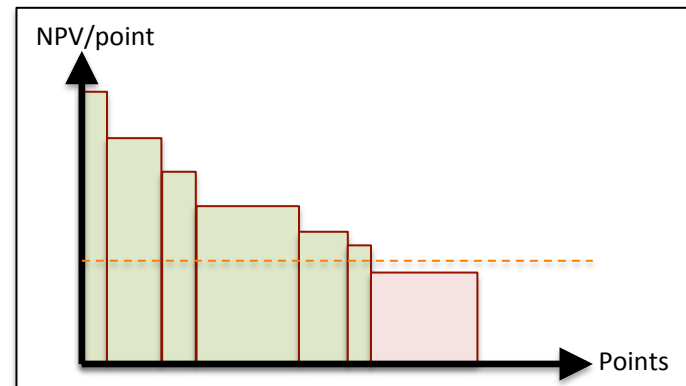
1. Tiering Activity by Category



2. Regular Quarterly Cadence

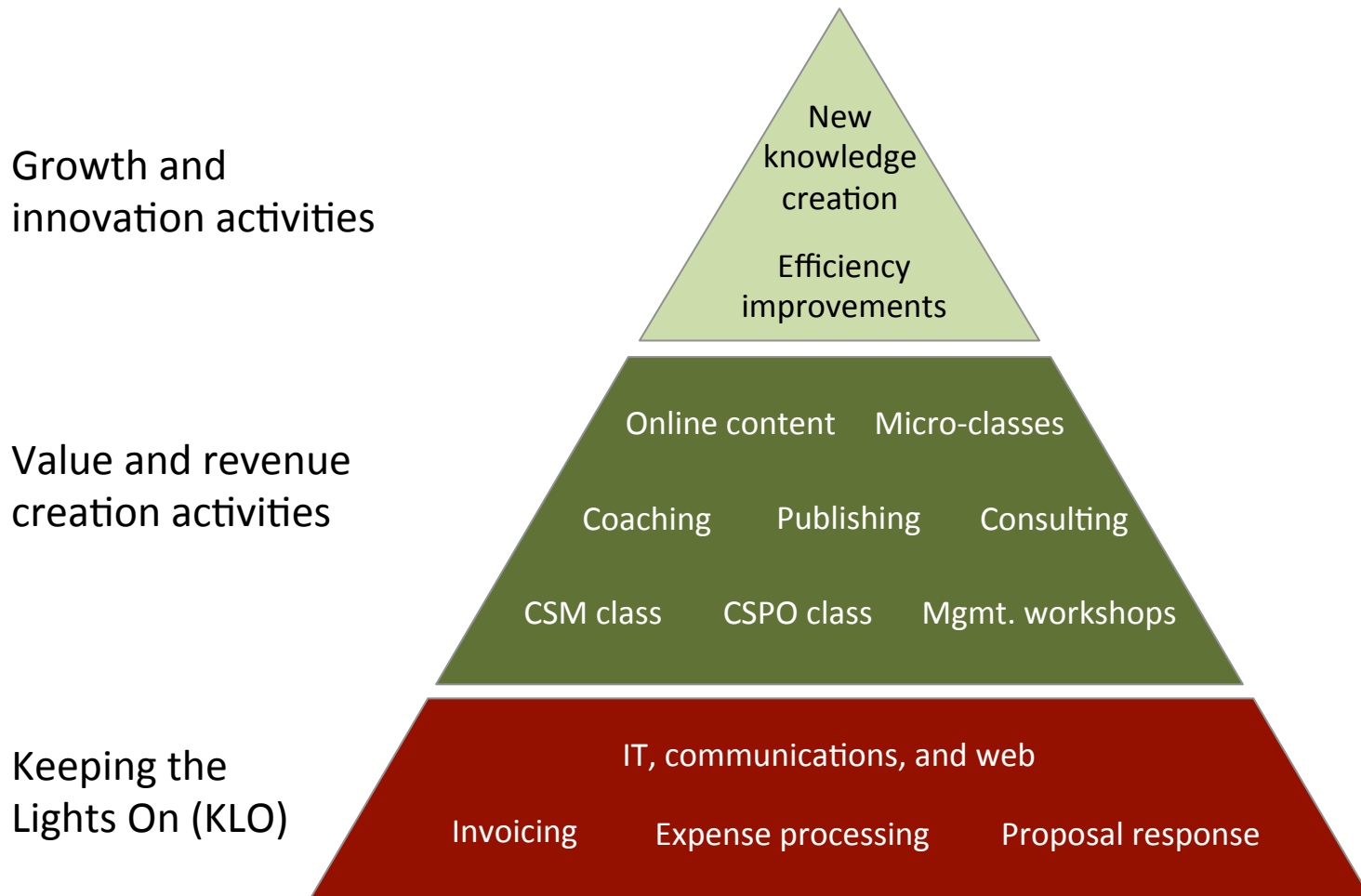


3. NPV/point for each Epic

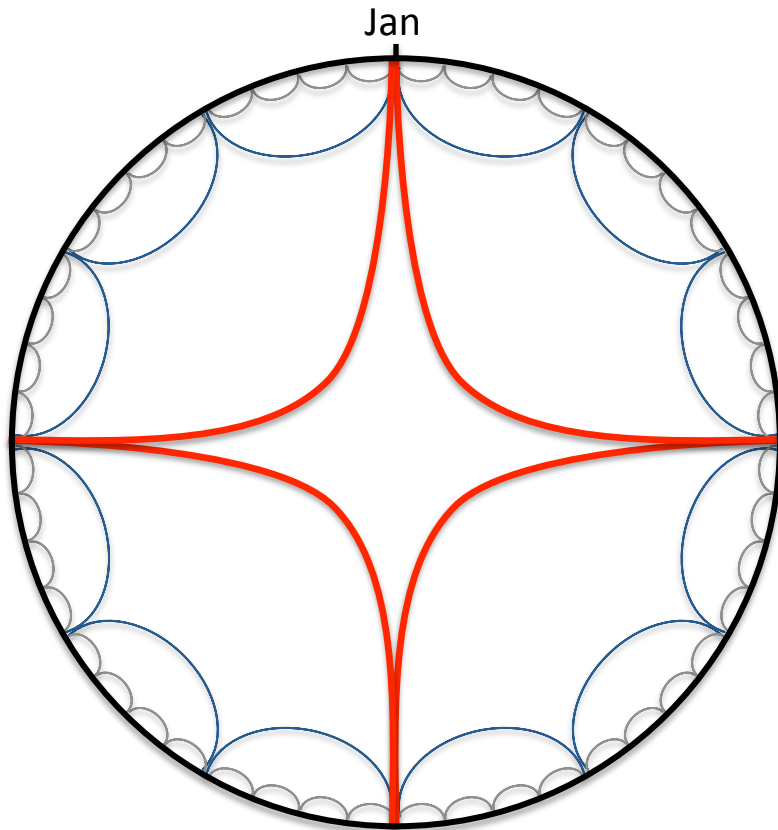


4. Prioritization of Epics

Scrum Inc. Activities Tiered into Parallel Workflows



Business Value Vision Updated on a Regular Cadence



Multiple parallel planning, review, and retrospective cadences

- Yearly**
 - Strategic goals
 - Financial estimates
- Quarterly**
 - Epic definition/prioritization
 - Release planning
 - Financial Forecasts and goals
- Monthly**
 - Actual financial performance
 - Epic progress check-in
- Each Sprint**
 - User story planning
 - Backlog refinement
 - Sprint goals

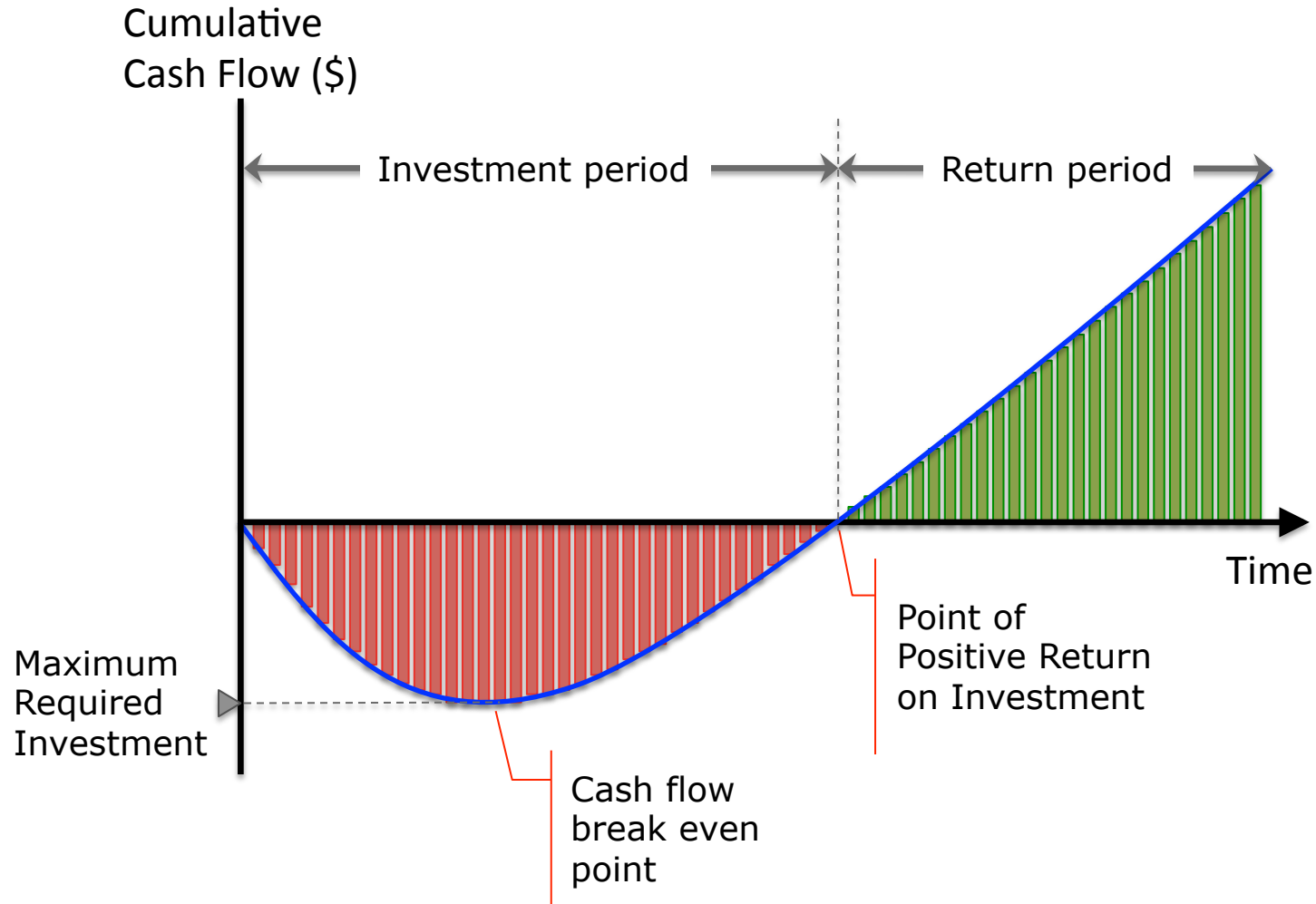
Business Value Calculation Anchored to the “Production Function”

- Production Function describes the mechanics by which organization accomplishes its mission.
- NPV/point calculations should link to variables in the Production Function
- Agreeing on the Production function helps align the product vision

Some Examples:

- 1 $[\text{Profit}] = [\text{Units Sold}] \times ([\text{Price/Unit}] - [\text{Cost/Unit}]) - [\text{Fixed Cost}]$
- 2 $[\text{Profit}] = [\text{Monthly Users}] \times [\text{Member Fee}] - [\text{Fixed Cost}]$
- 3 $[\text{Impact}] = [\text{People Impacted}] \times [\text{Magnitude of Impact}]$

Cash Flow Profile for a Typical Epic



Calculating Net Present Value

$$\sum_{t=0}^N \frac{C_t}{(1+r)^t}$$

Where

C_t is the net cash flow in time period t

r is the discount rate

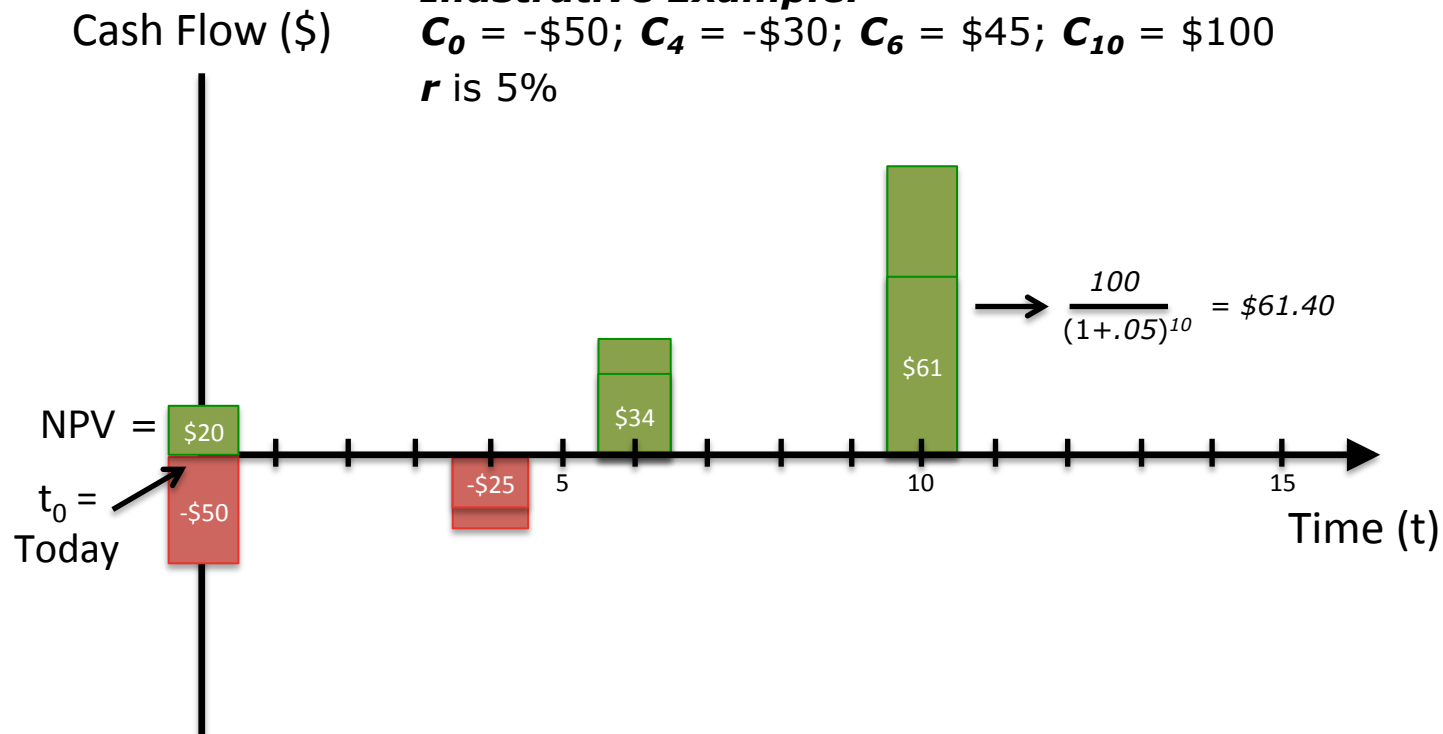
t is the time period

N is the total number of time periods considered

Illustrative Example:

$C_0 = -\$50$; $C_4 = -\$30$; $C_6 = \$45$; $C_{10} = \$100$

r is 5%



NPV/Point Drives Better Decision Making

One metric to encapsulate return on investment

1. Calculate Epic NPV
2. Can also include “intangible” benefits
 - Use Planning Poker to estimate business value relative to reference activity with known cash flows
3. Estimate story points to complete Epic
4. Divide total NPV by estimate of points
 - Answers: How can we get most return with least effort?

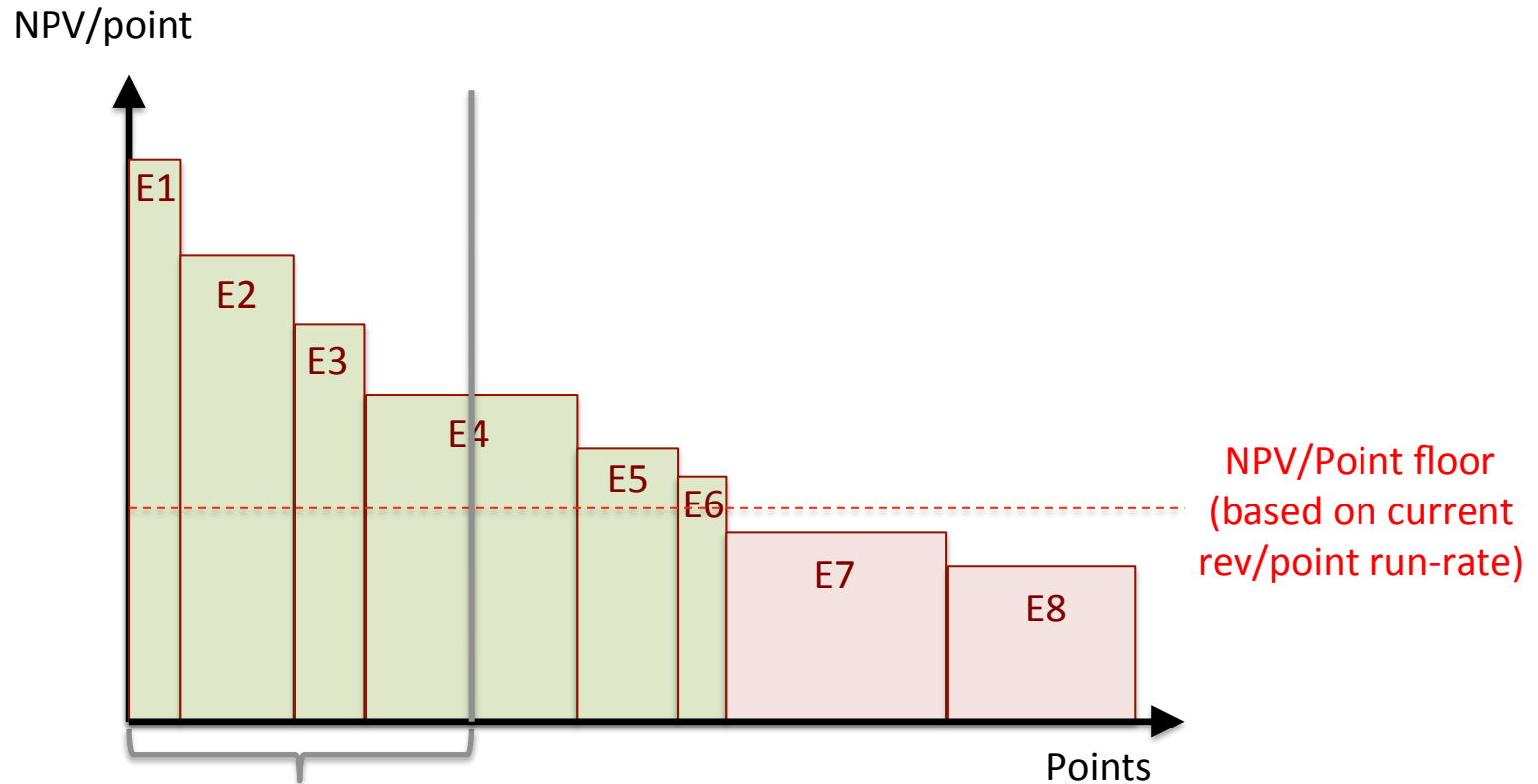


Focuses team on optimizing returns

- Eliminates most internal power politics
- Encourage teams to think in business case terms
- Highlights key assumptions and variables to confirm
- Supports after-action review to improve accuracy

Prioritize Candidate Epics by NPV/Point

Minimum level set by current Rev/point run rate



Available quarterly team capacity for Epics
(based on yesterday's weather)

Scrum Inc. Case Study: Setup

Publish a book

- New revenue opportunity
- \$400,000 advance, paid at key milestones
 - 25% at contract signing
 - 50% at draft delivery (+12 mo.)
 - 25% at publication (+9 mo.)
- Estimate \$5,000 in travel and research expenses
- Estimate intangible benefit of brand building at 2x reference story (reference worth \$30,000)
- Estimate 1,500 points of effort to research, write and edit

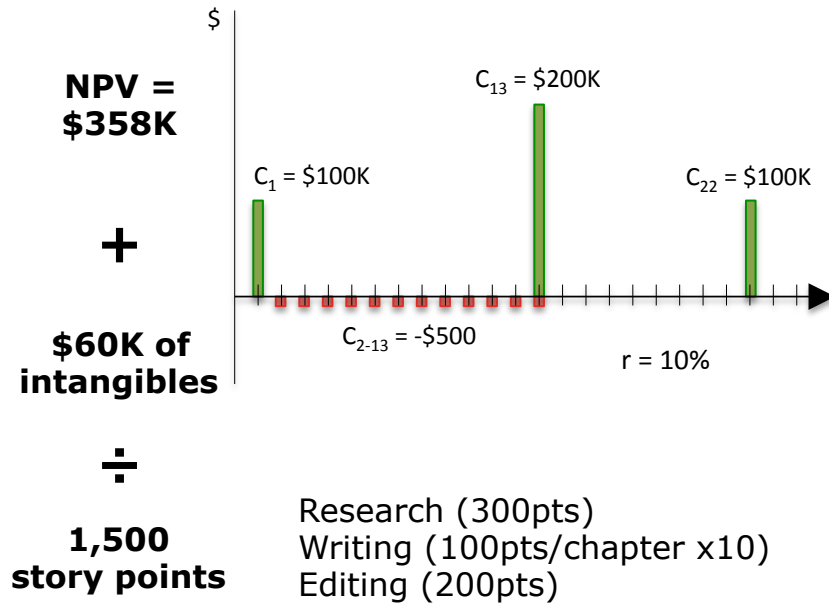
Install videoconference system

- Performance improvement
- No additional revenues
- \$5,000 in up-front expense
- Team estimates intangible benefits of closer team integration at 3x reference story (gut check: ~2% velocity increase)
- Estimate 25 points of effort to research, purchase and install

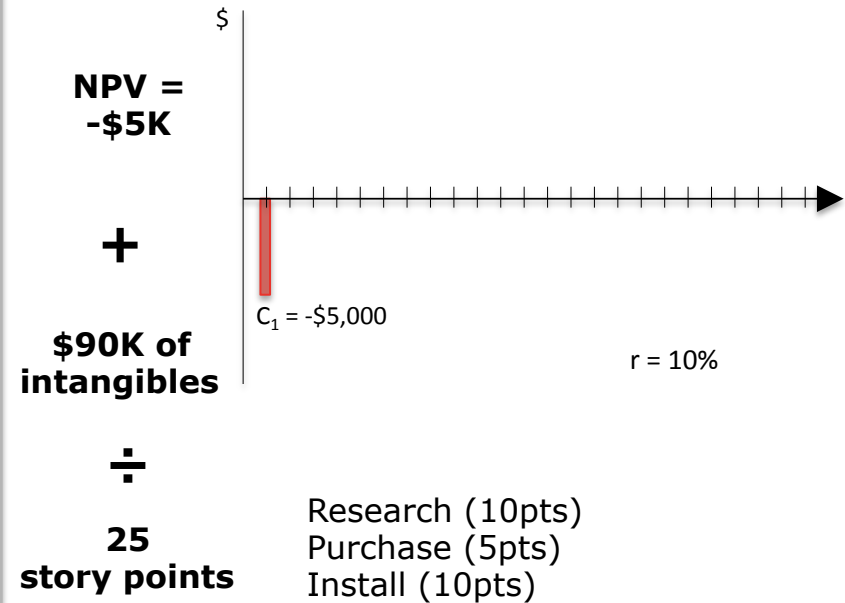
Which project should we do first?
Should we do them both?

Case Study: Calculate NPV/Point

Publish a book



Install videoconference system



\$279/point

VS.

\$3,543/point

Conclusion

- We spend a great deal of time in Scrum talking about maximizing business value...
- ...But most companies still use very qualitative processes to estimate business value
 - Creates unresolved arguments about one pet project versus another
- Using a more quantitative lens makes business value explicit, and is well worth added effort
 - Allows explicit comparison of feature vs. tech debt
 - Enables explicit consideration of risk
 - Done quarterly at the Epic level, not for every story and sprint

Questions?



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