

# Calculating Business Value

## Unlocking Your Value Delivery Potential

GOTO Berlin – May 13, 2014



Presenter: Alex Brown

# 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](http://www.scruminc.com).

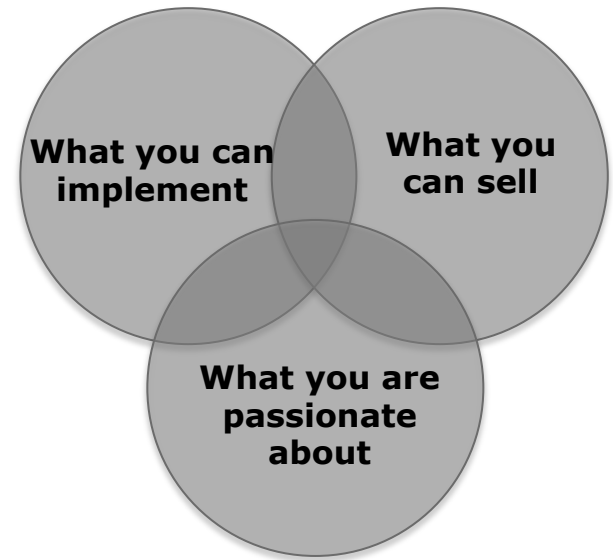
# Agenda

- 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:

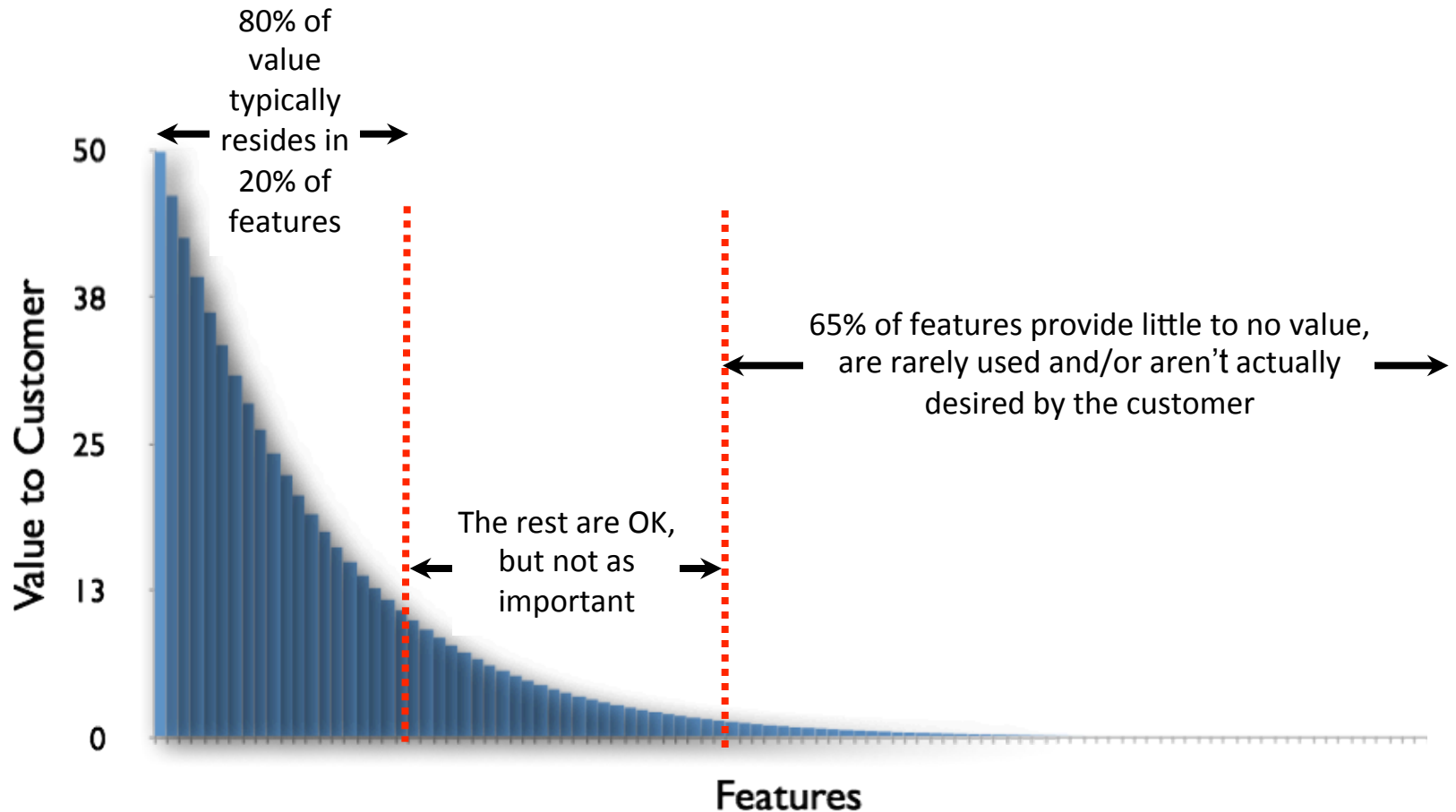
- Develop or refine hypotheses about the market?
- Prove technical assumptions?

## Capability Building

Will completing this story:

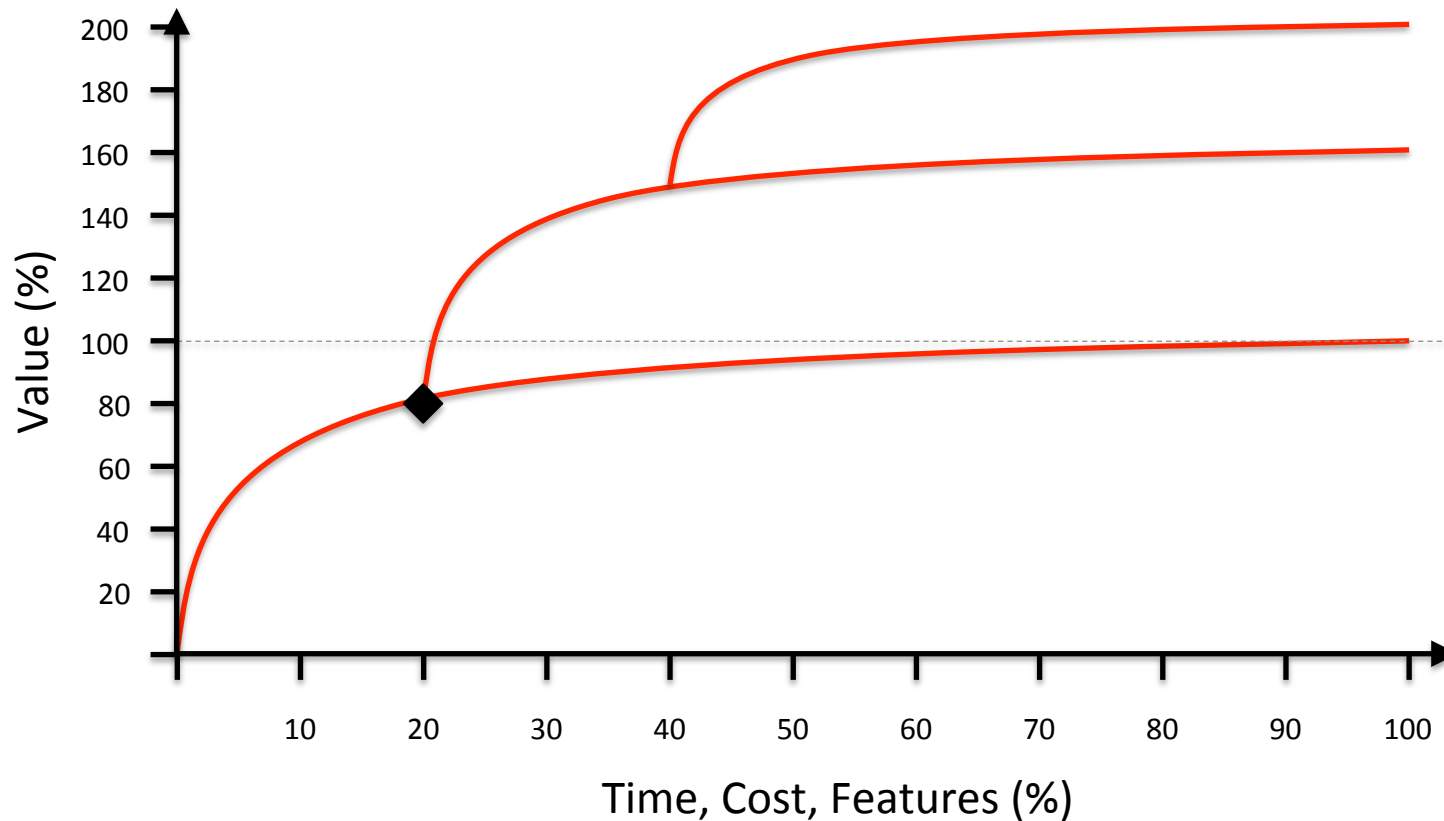
- Enable our team to do something we couldn't before?
- Reduce or eliminate the need for low-value activity?

# Not All Features Are Created Equal!

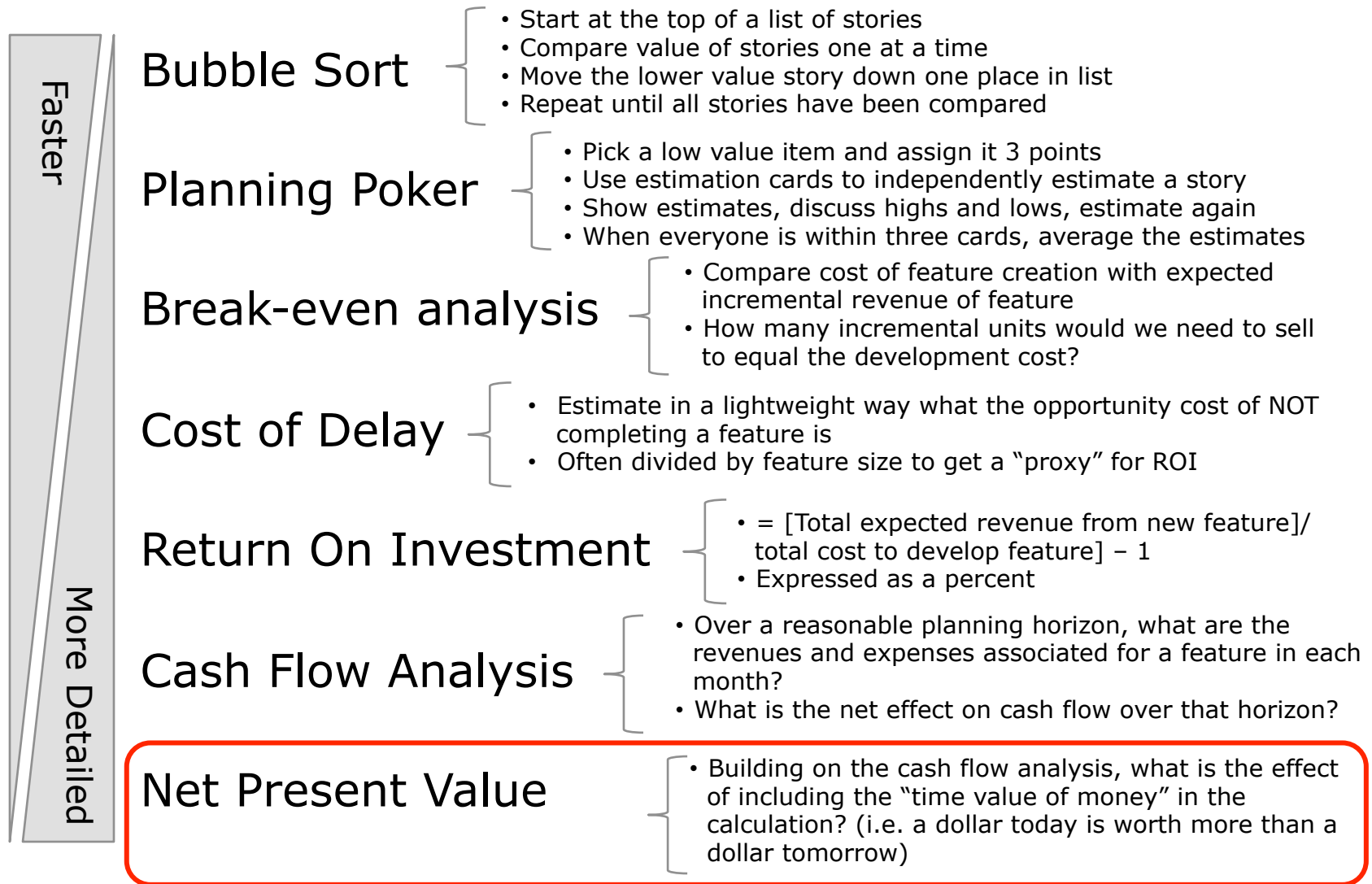


How can you tell ahead of time which features add value and which don't?

# Prioritizing Features Effectively Can Deliver Radically More Business Value

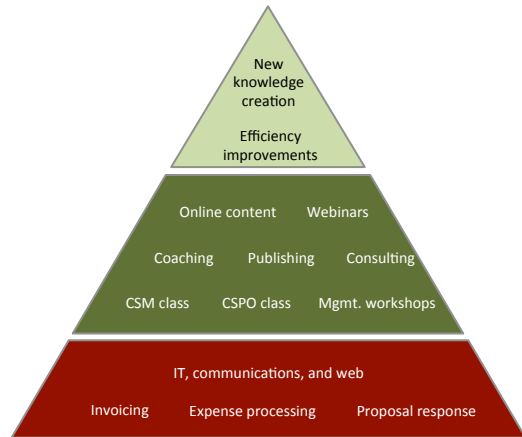


# Methods for Determining Value

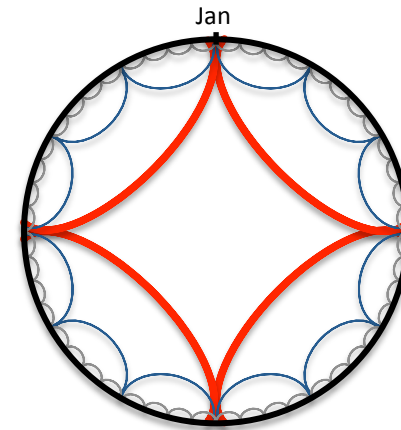




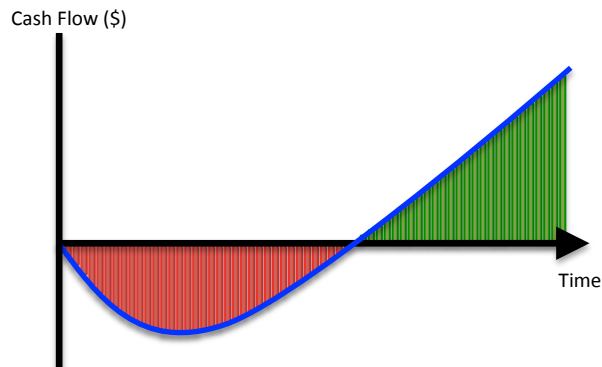
# Four Pillars to Scrum Inc.'s Business Value Process



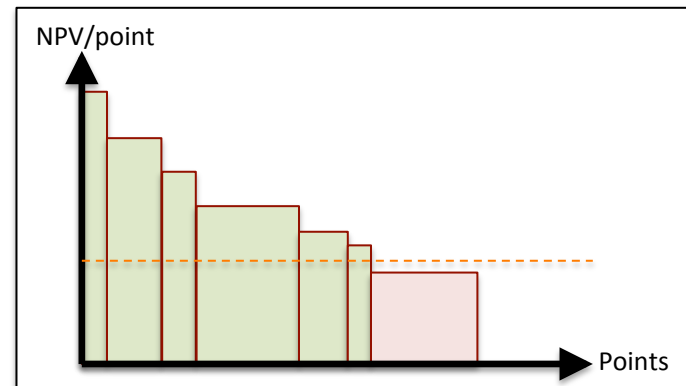
## 1. Tiering Activity by Category



## 2. Regular Quarterly Cadence

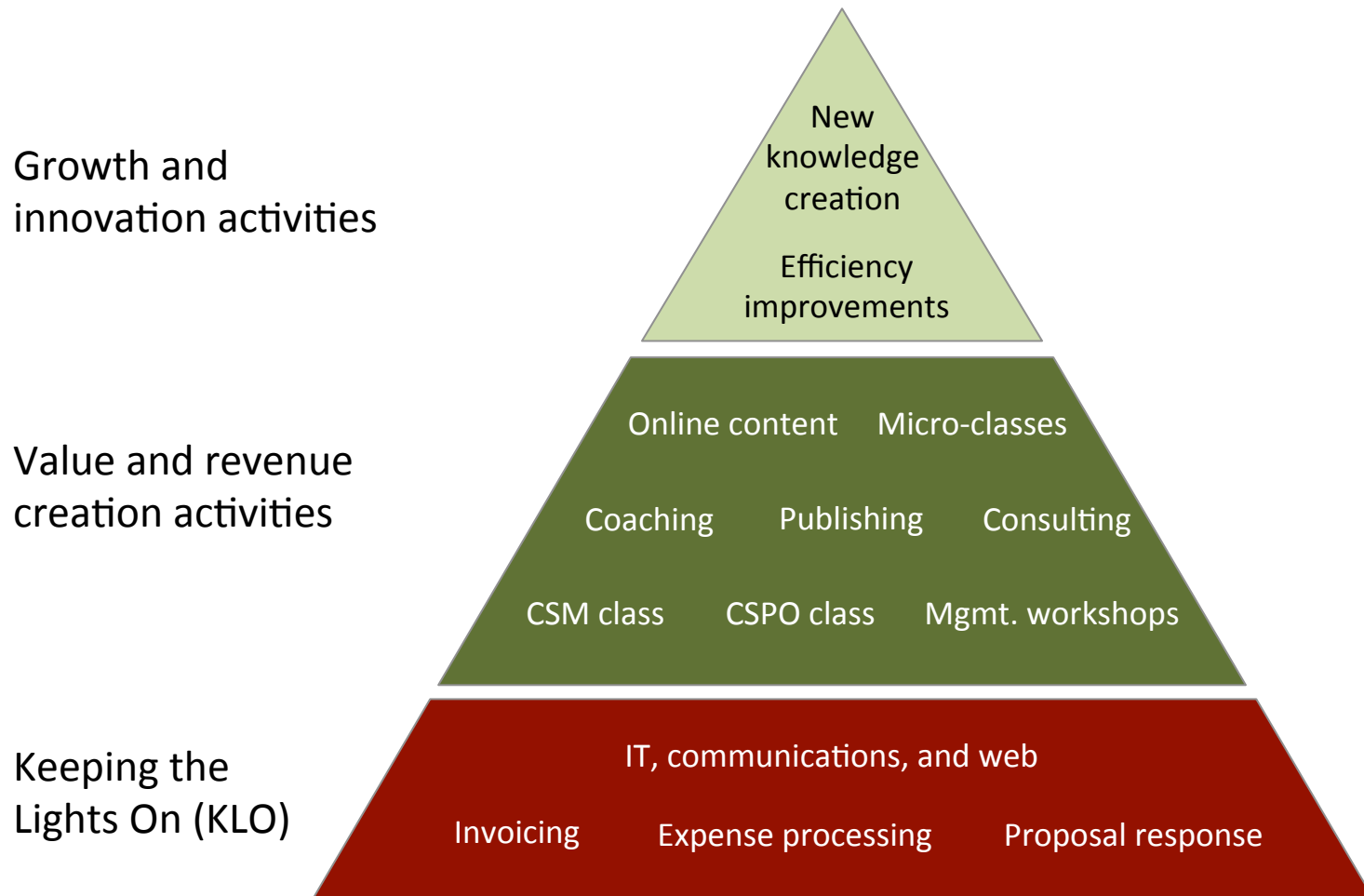


## 3. NPV/point for each Epic

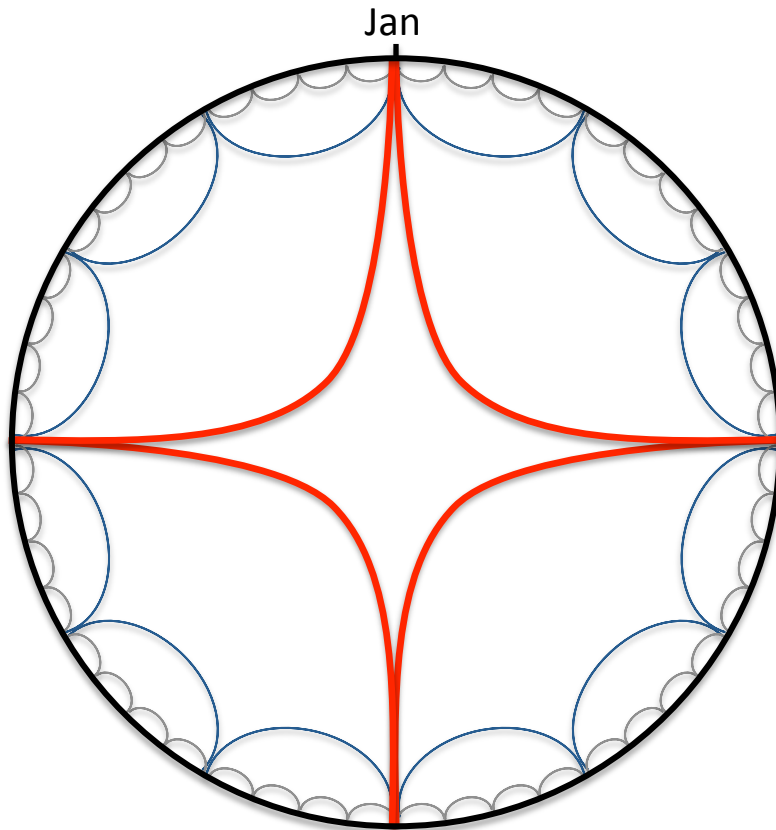


## 4. Prioritization of Epics

# 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

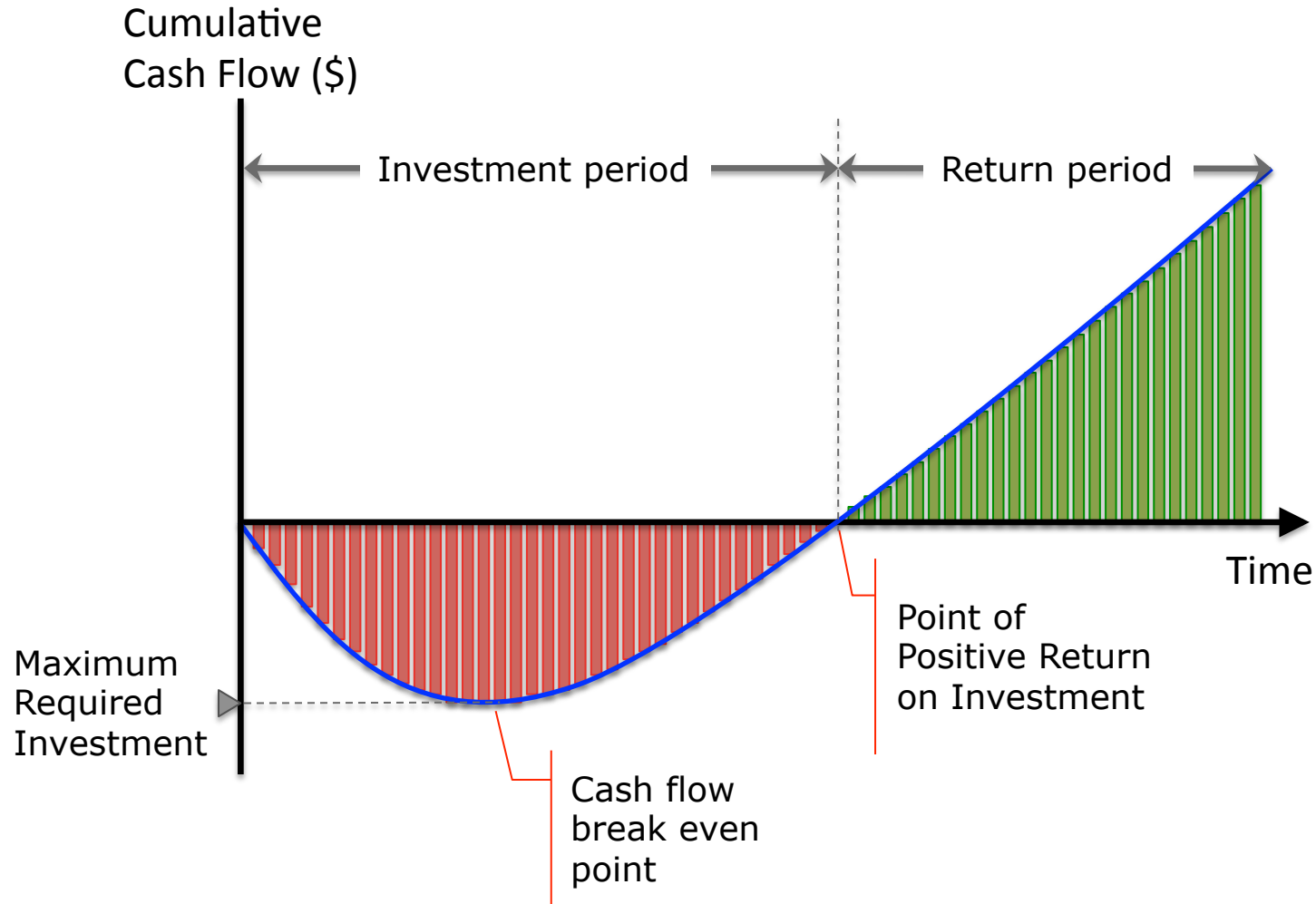
# Business Value Calculation Anchored to the “Production Function”

- 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

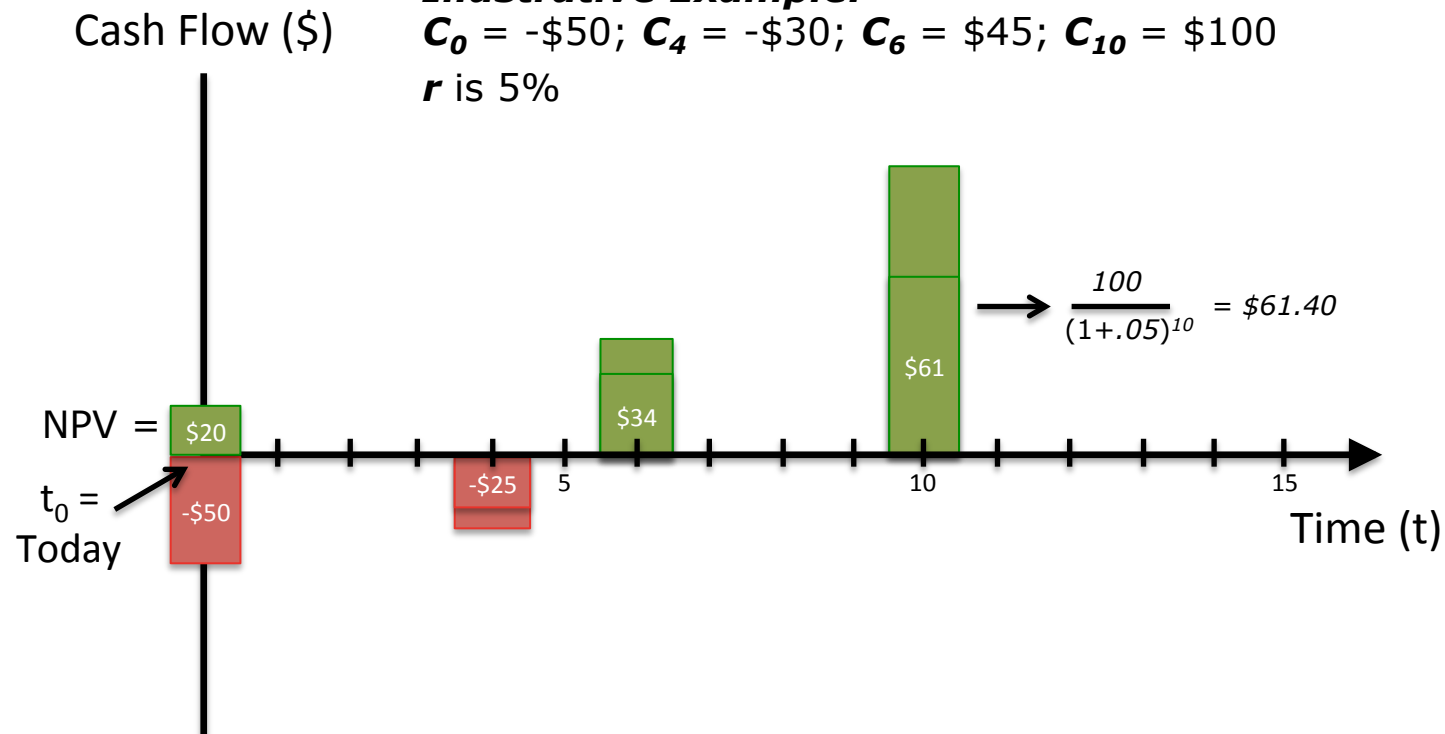
$t$  is the time period

$N$  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?

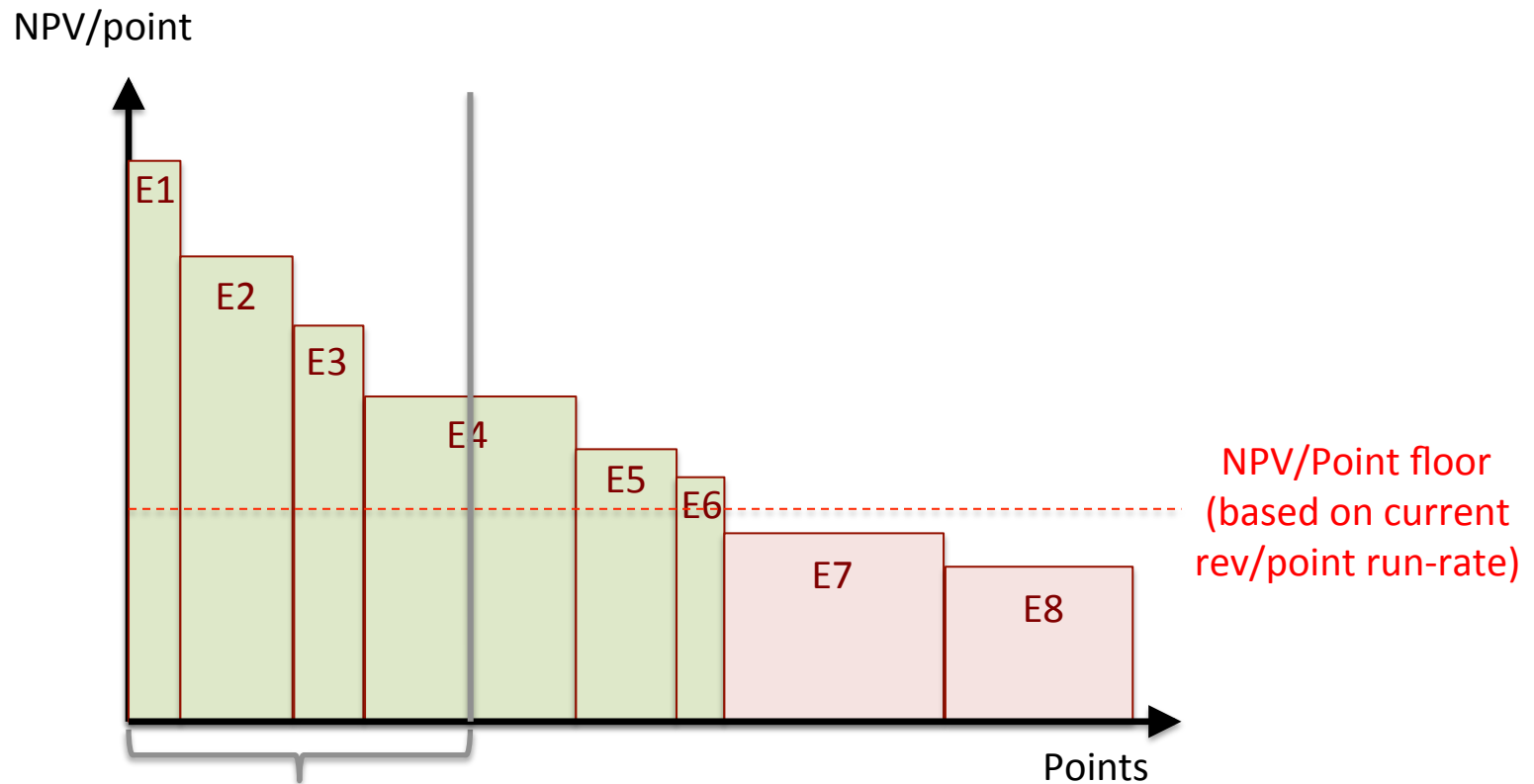


Focuses team on optimizing returns

- 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
- Improves ability to forecast financial results

# 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

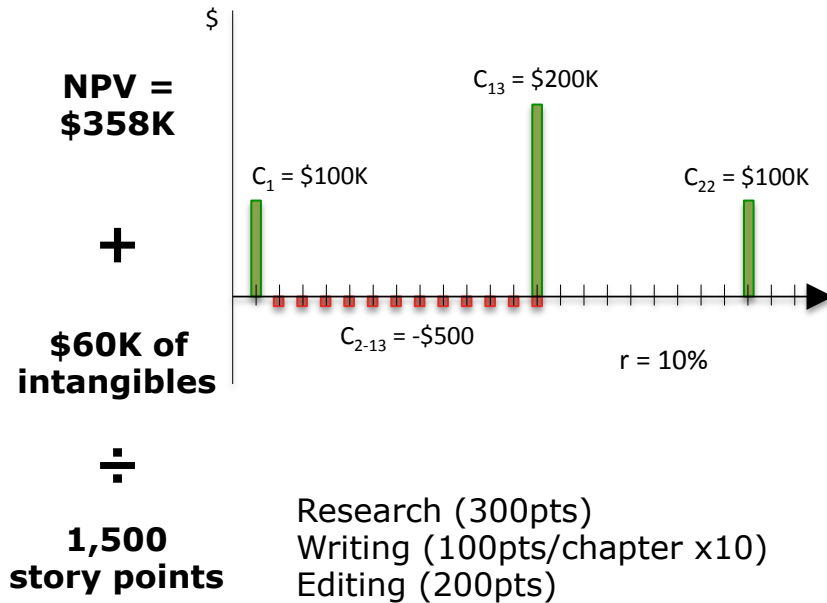
## Install videoconference system

- 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

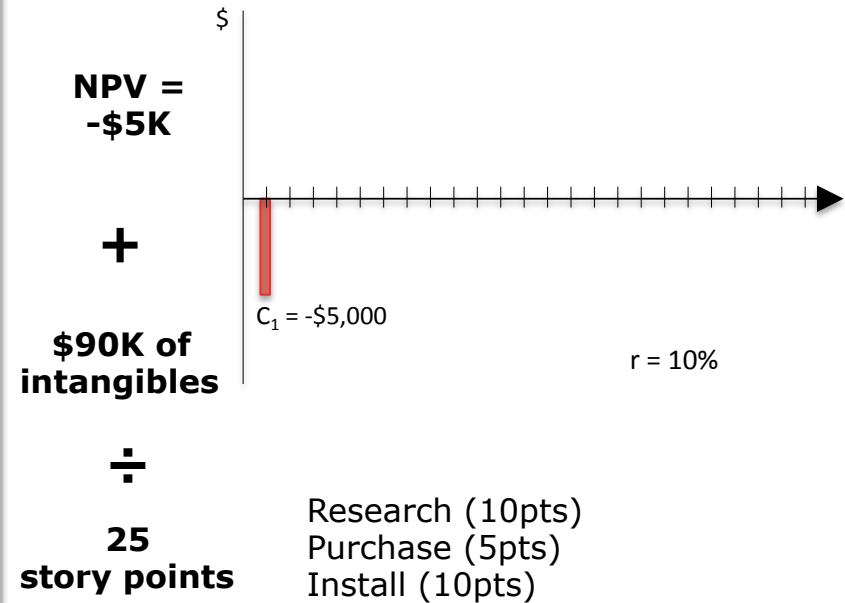
Which project should we do first?  
Should we do them both?

# Case Study: Calculate NPV/Point

## Publish a book



## Install videoconference system



\$279/point

VS.

\$3,543/point

# Conclusion

- We spend lots 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?



# Stay Connected

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