



# Autovation

September 25-28

# 2011

The **Smart Utility**  
Conference & Exposition

[www.utilimetrics.org](http://www.utilimetrics.org)

*Gaylord National Resort and Convention Center Washington, DC*

# Plan to Re-plan

Adaptive Planning & Agile  
Methods to Increase Value in  
Smart Metering Projects



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AMI Project Director  
Portland General Electric



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Consultant, Principal  
SoTech Advisors



## About the Talk

1. PGE's Smart Metering Project
2. A Cautionary Tale
3. Business Process Focus: Connects
4. Learning to Learn
5. If We Knew Then What We Know Now



## The Project

- 825,476 meters installed
- Sensus FlexNet™ System, Two-way wireless network
- Project Cost: \$154 million (\$144 million capital)
- Timeline:
  - Network Build Jan. 2008 – Dec. 2009
  - Meter Deployment May 2008 – Aug. 2010
  - Business Process Change Sept. 2007 – Aug. 2011

## Outcomes

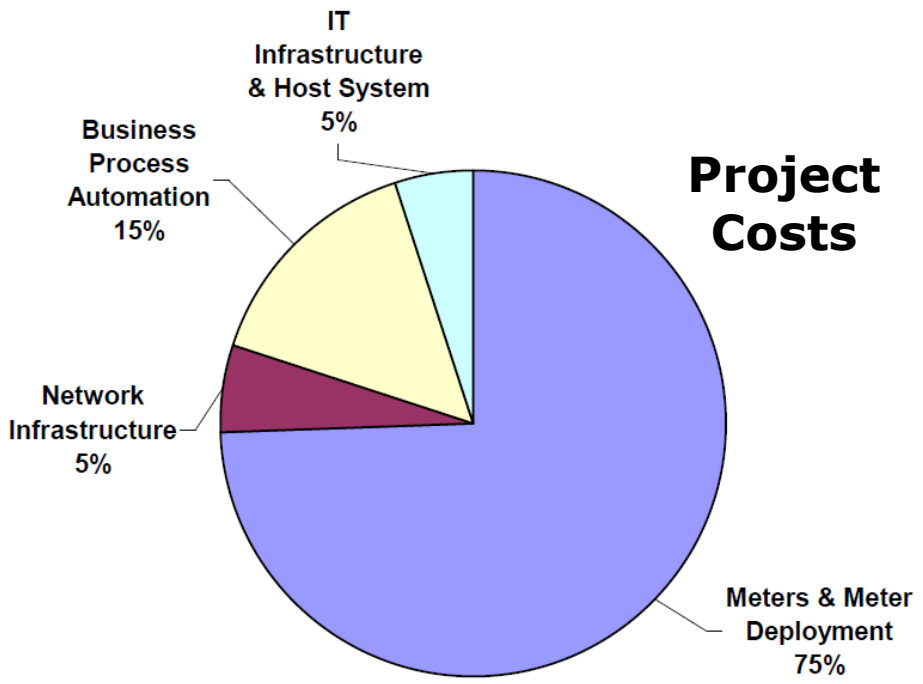
- Annual O&M Savings: \$18.2 million
- ROE (20-year): \$35 million NPV
- Customer Benefits:
  - Preferred Due Date
  - Energy Tracker
  - High Bill Resolution
  - Rate Benefit

## Recognition

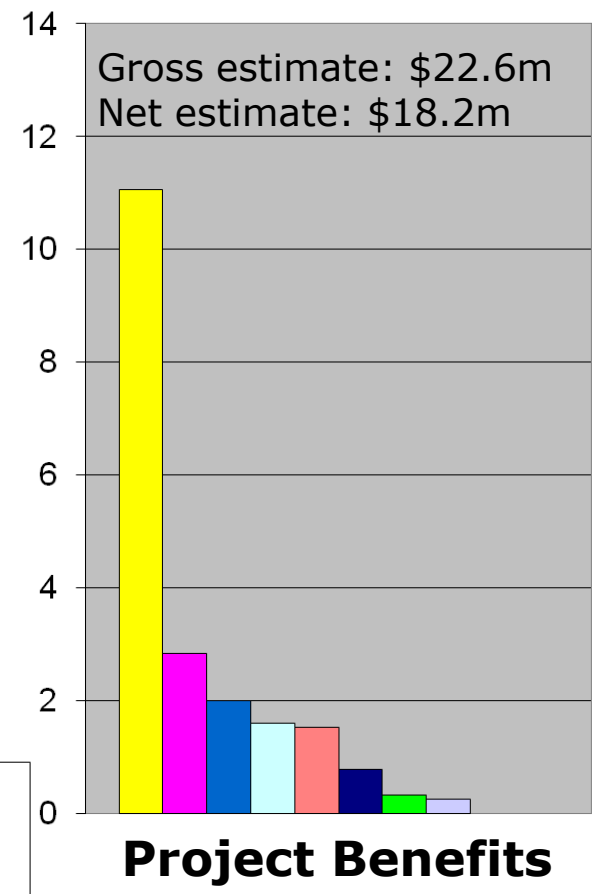
- Utilimetrics: “**Excellence in AMI/Smart Grid Management**” (2010)
- Metering America: “**10 Years of Excellence**” in Meter Data Management (2009)
- Chartwell: “**Best Practices**” for Advanced Metering & Data Management (2008)



## Process Benefits Leverage Infrastructure

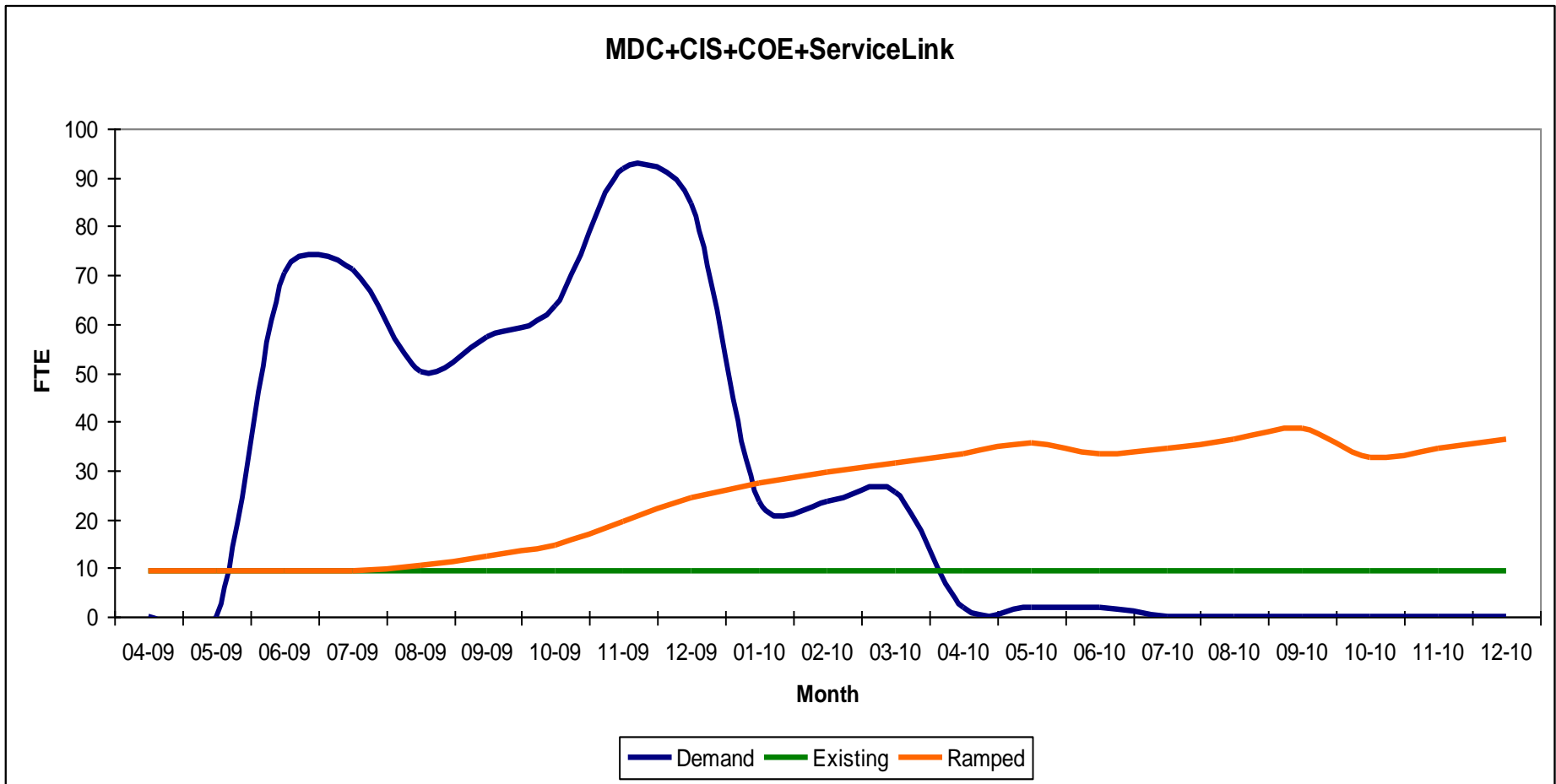


- |                                     |                                     |
|-------------------------------------|-------------------------------------|
| AME Route Rollover                  | Disconnects & Reconnects            |
| Customer Selected Due Date          | Meter Accuracy and Sensitivity      |
| Lost Revenue Protection             | On Cycle Billing - MIMO Time stamps |
| Temp Unavailable due to Power Costs | Smart Meter Install & Maint.        |



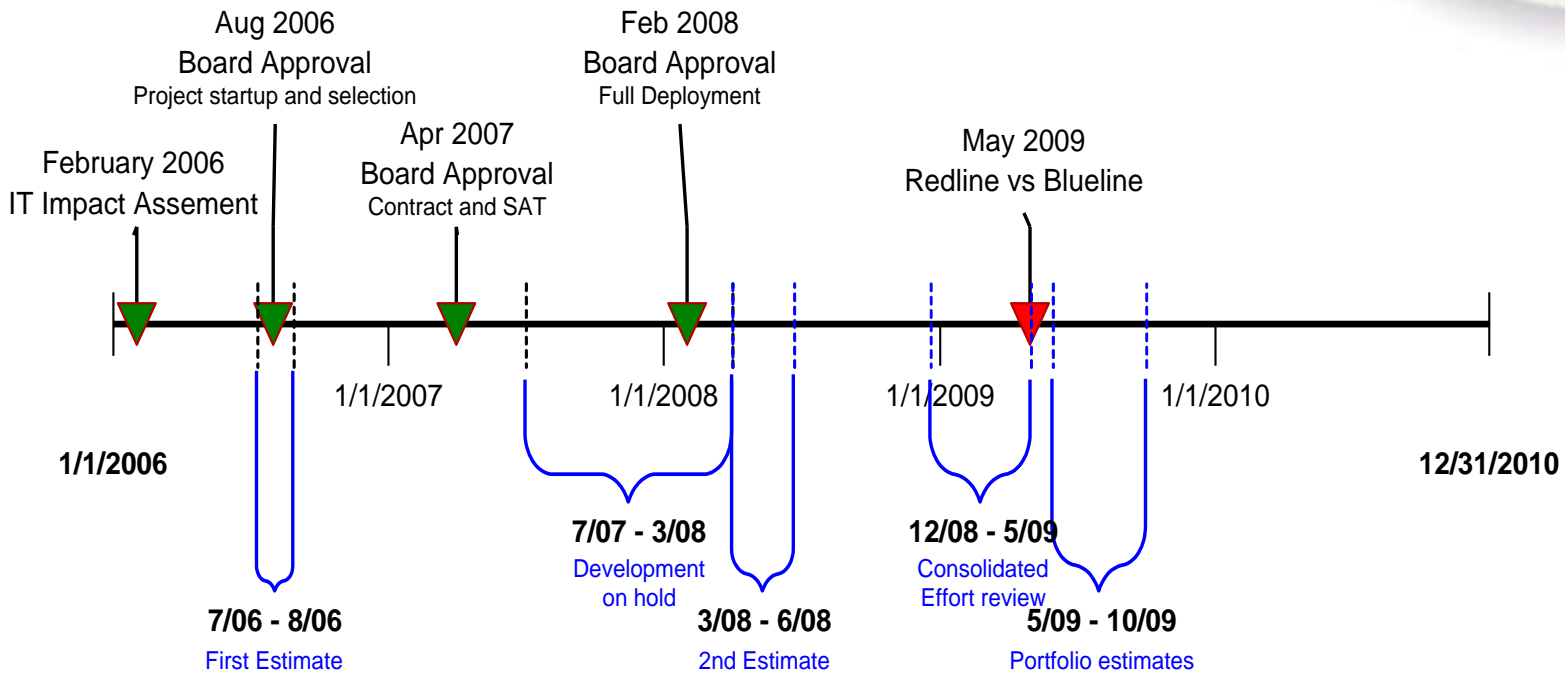


## A Cautionary Tale





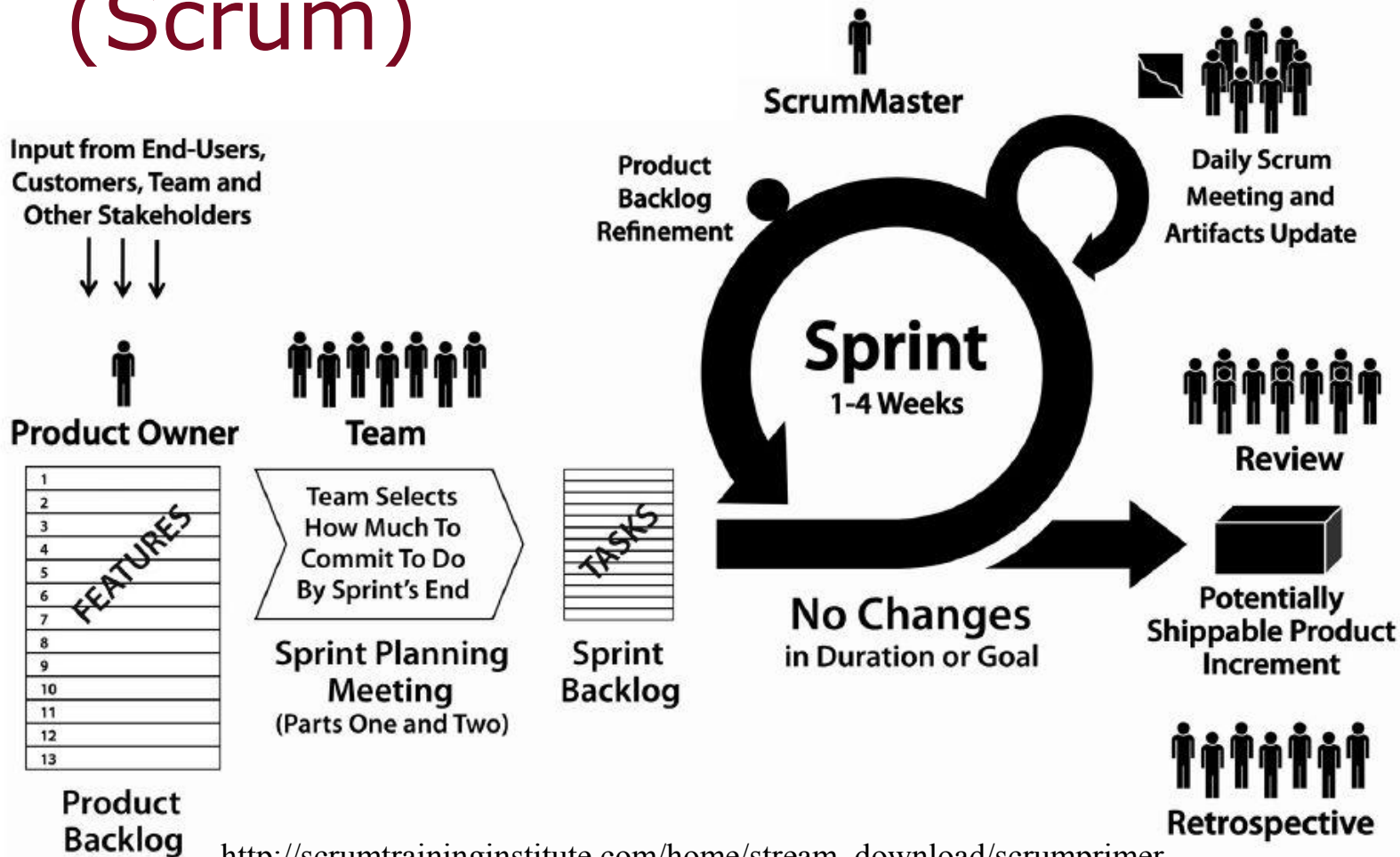
## Processes, Software & Benefits



Whatever it was we were doing wasn't working . . .  
 . . . so the certain perils of doing nothing  
 outweighed the risk of trying something different!

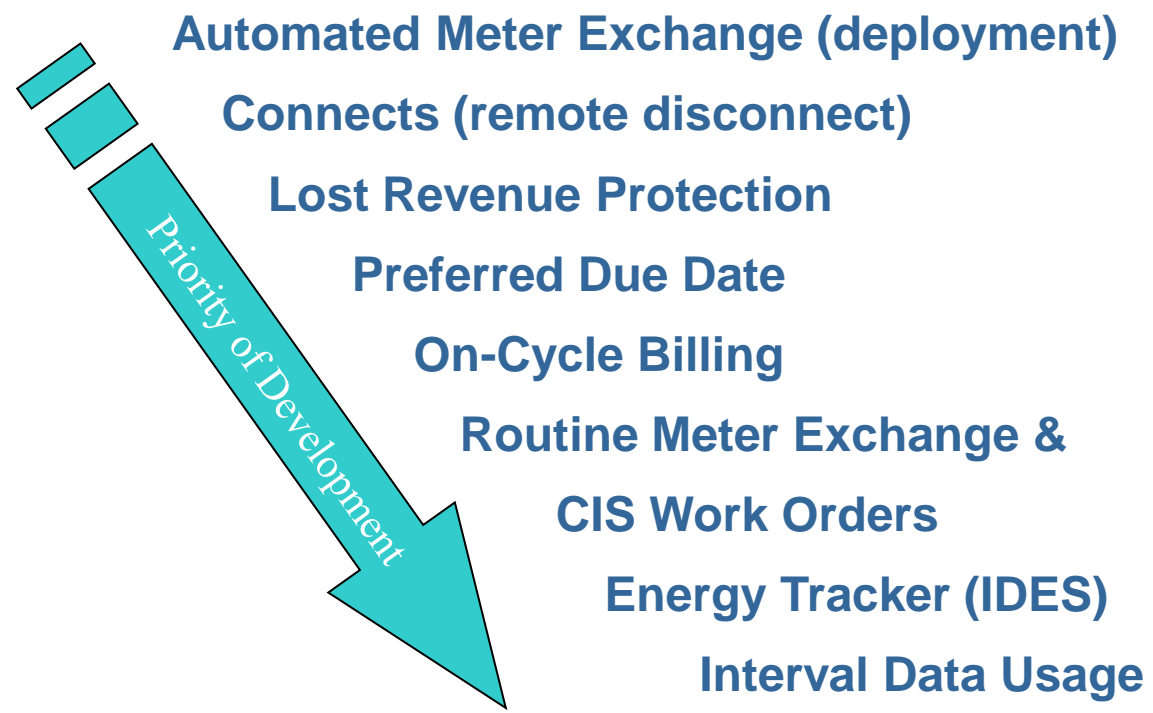


## Employed Agile Methods (Scrum)





## Prioritization Act 1: Force Ranking

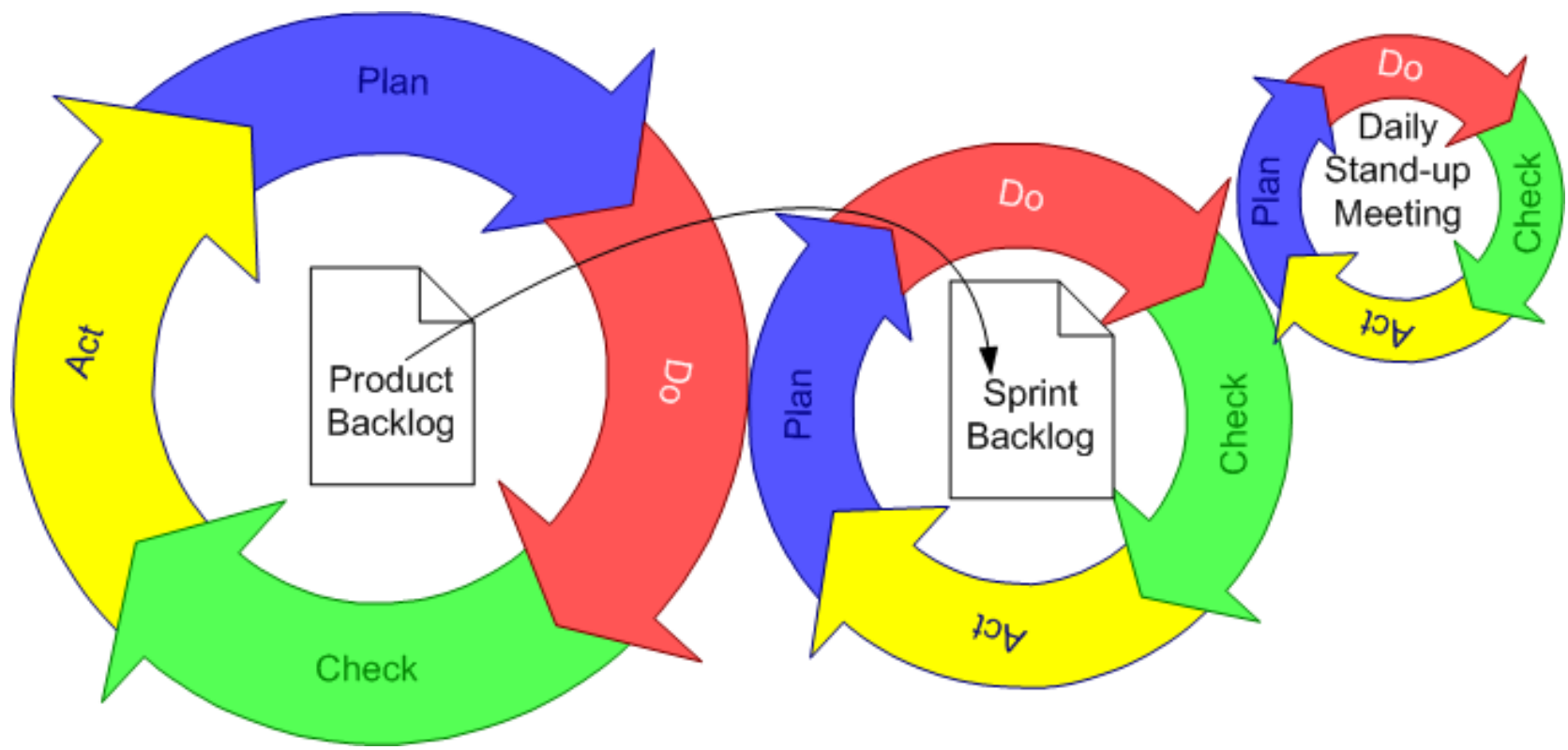


\* Based on 2011 Rate Case Filing

\$18.2 million per year in projected O&M savings\*



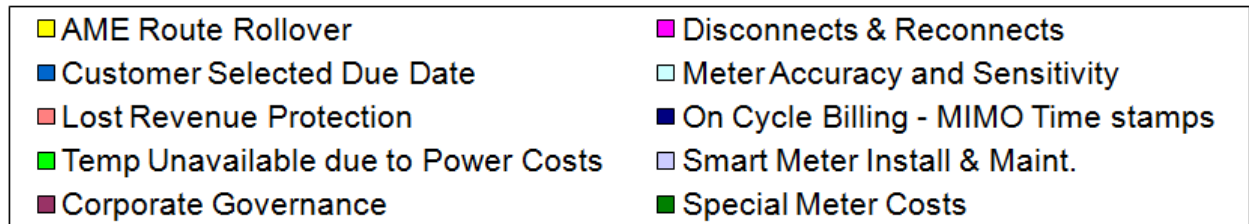
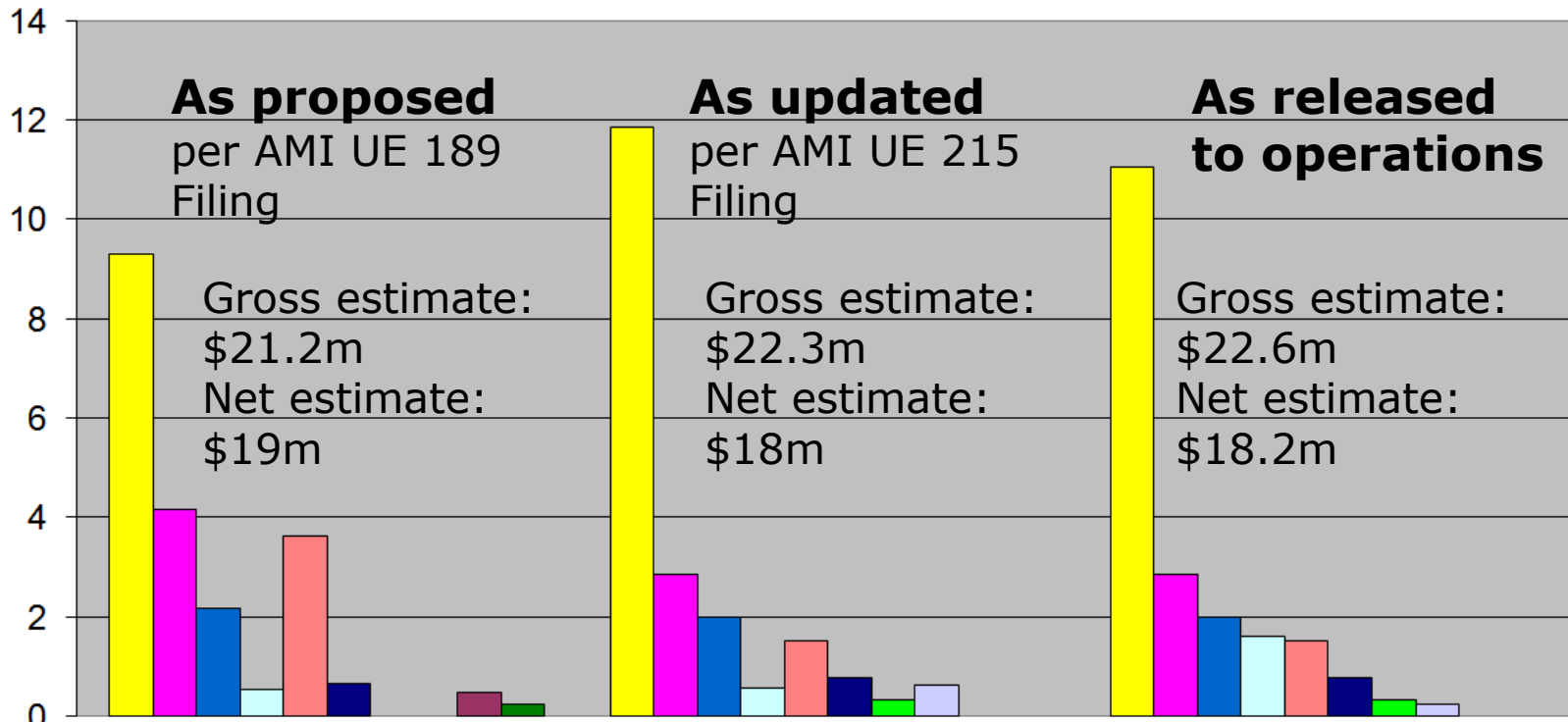
## Learning and Improvement





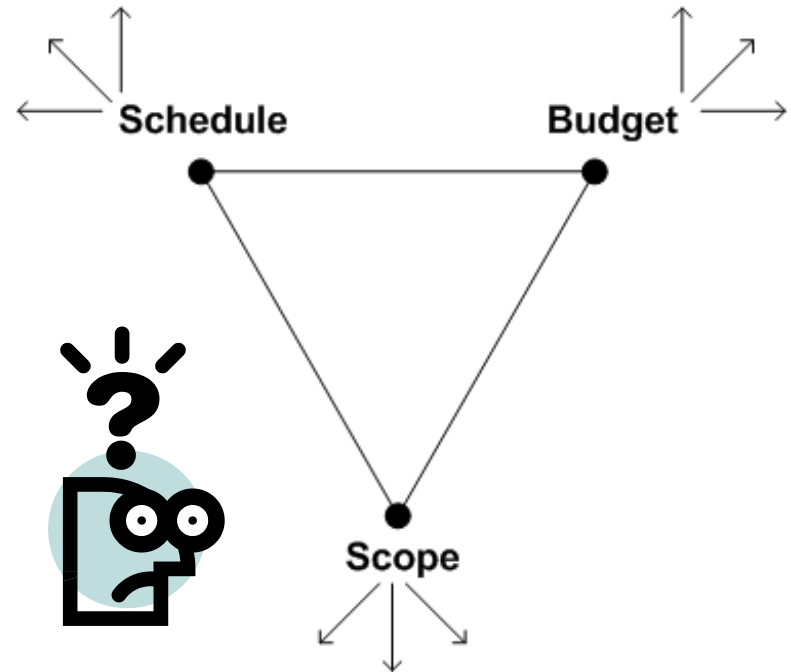


## Plan to Re-Plan



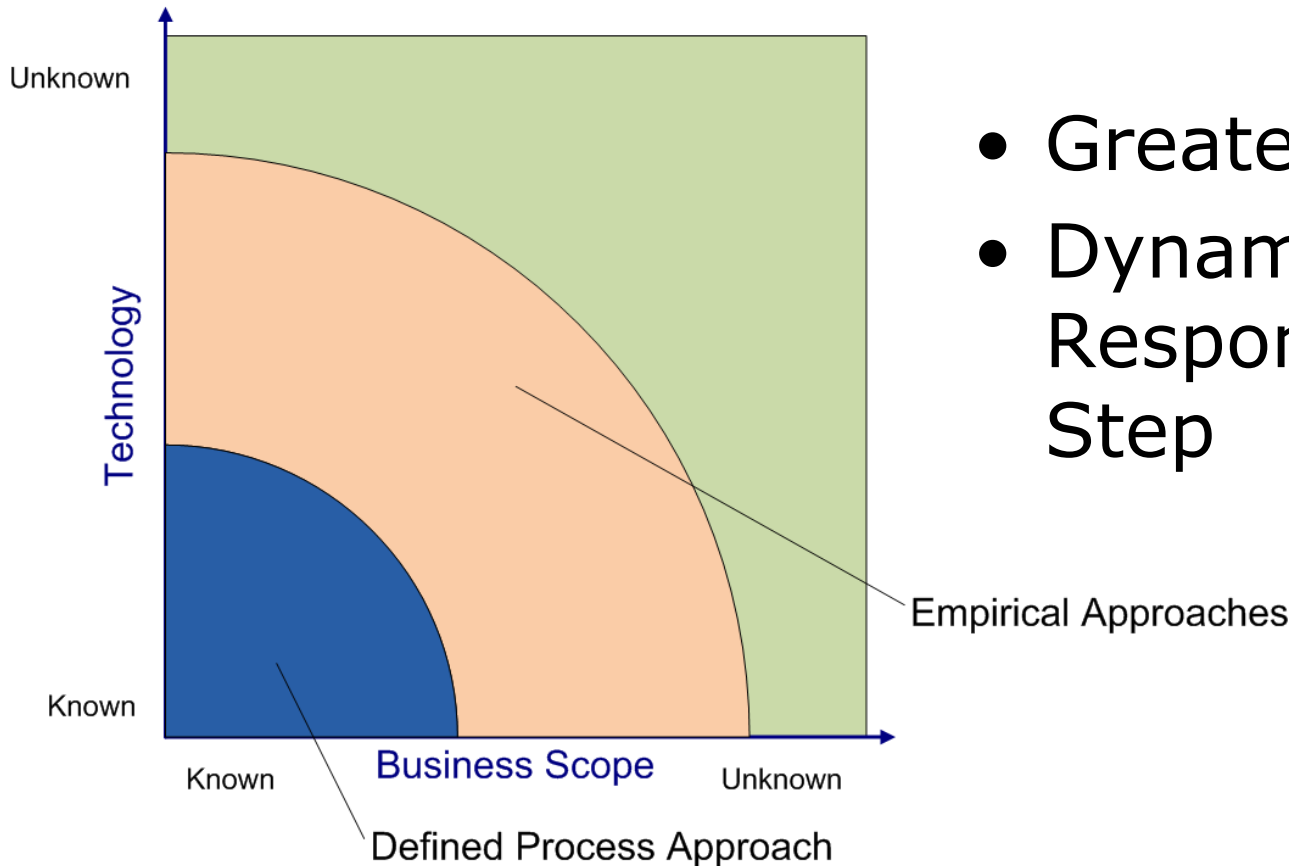
## Thought Question:

How long would it take your organization to adjust to news that the value of something had changed by 300% ?



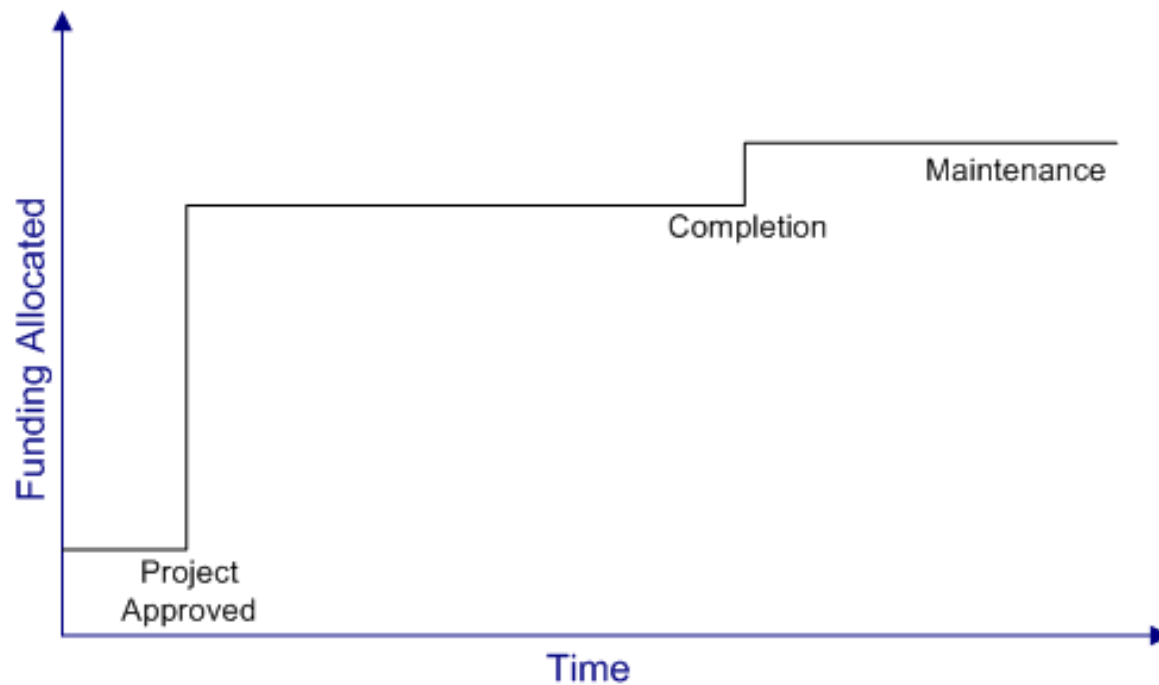


## Business Processes are Unlike Poles and Wires

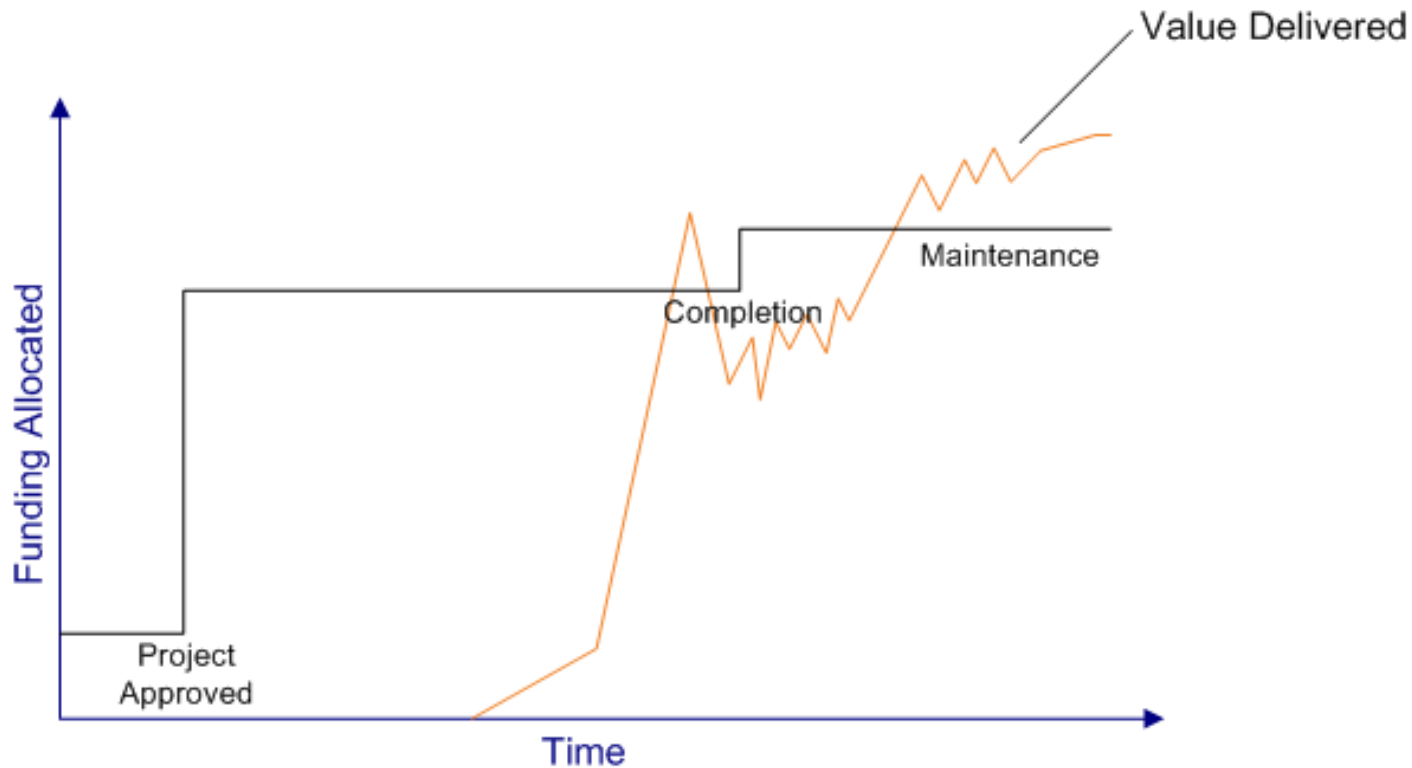


- Greater Variability
- Dynamic System Response at Each Step

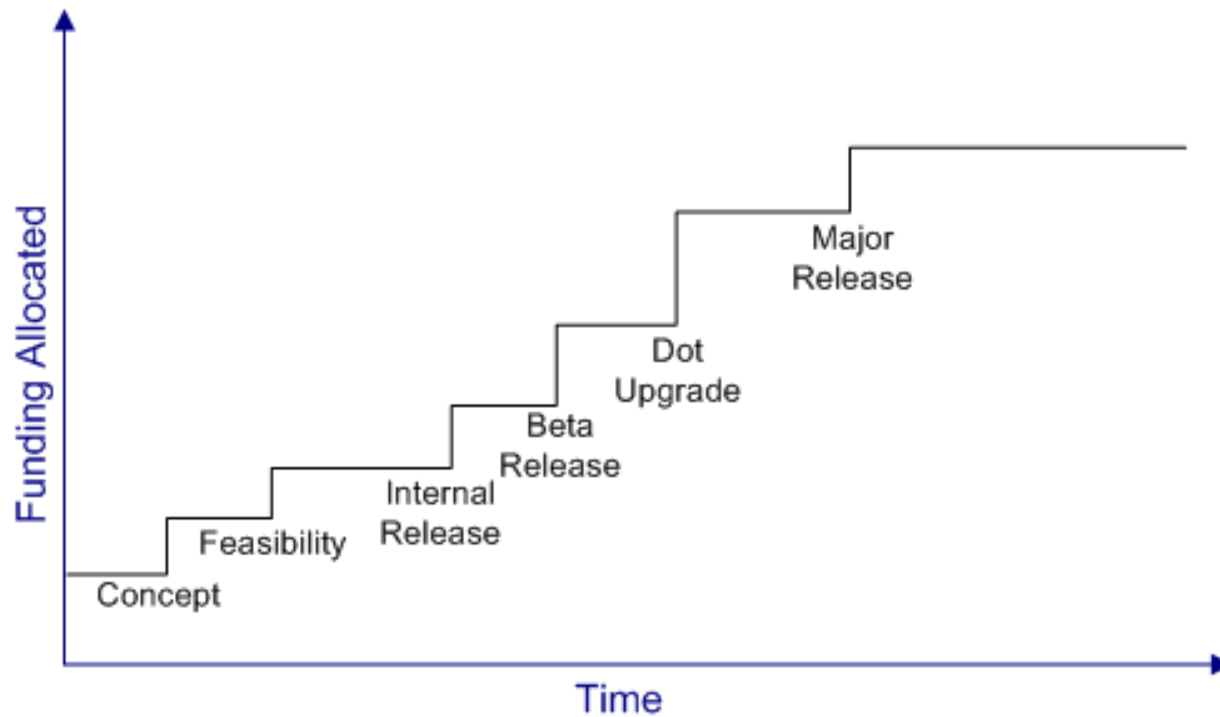
## Typical Project Funding Cycle



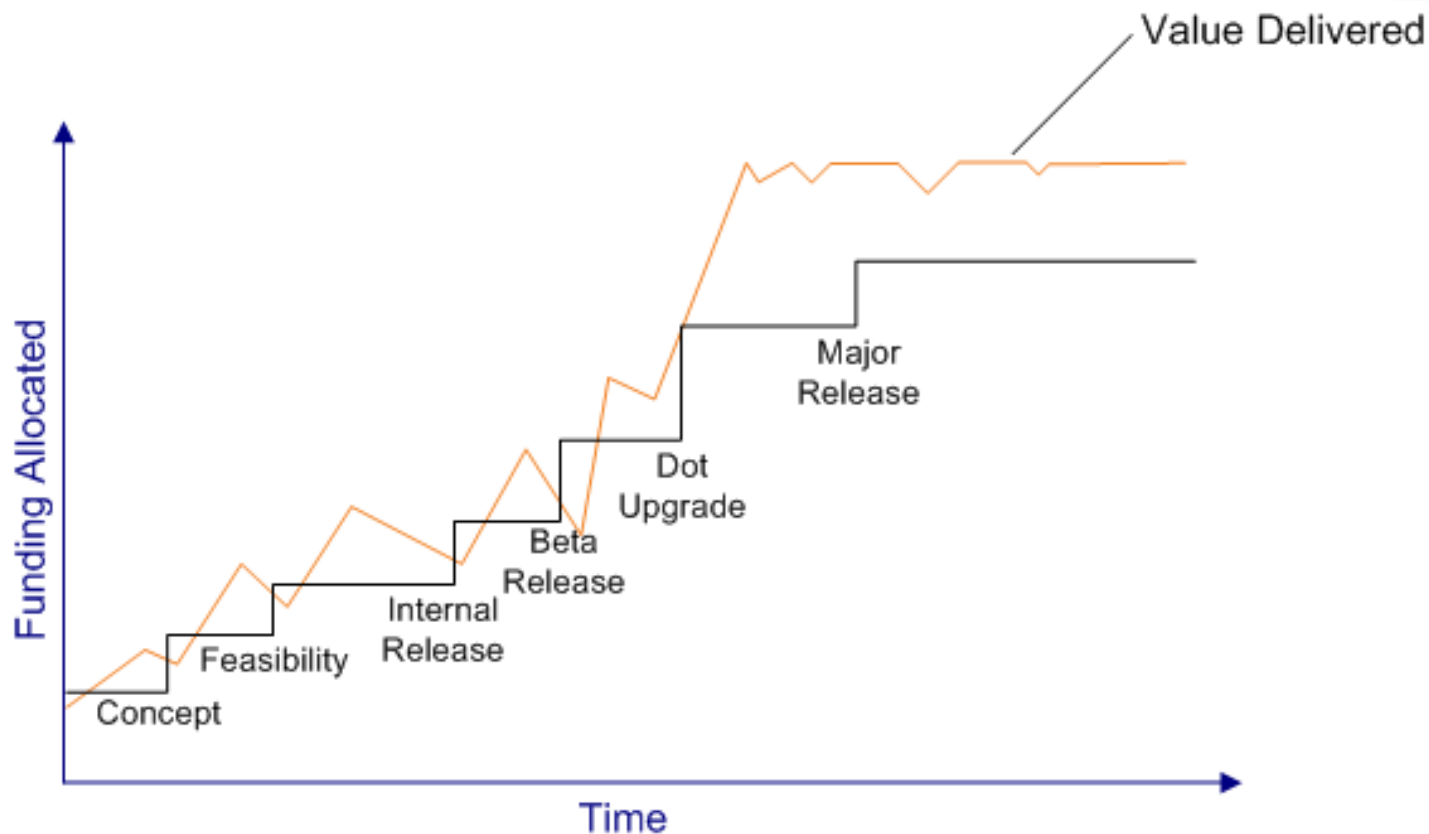
## Typical Project Funding Cycle



## Product Funding Profile

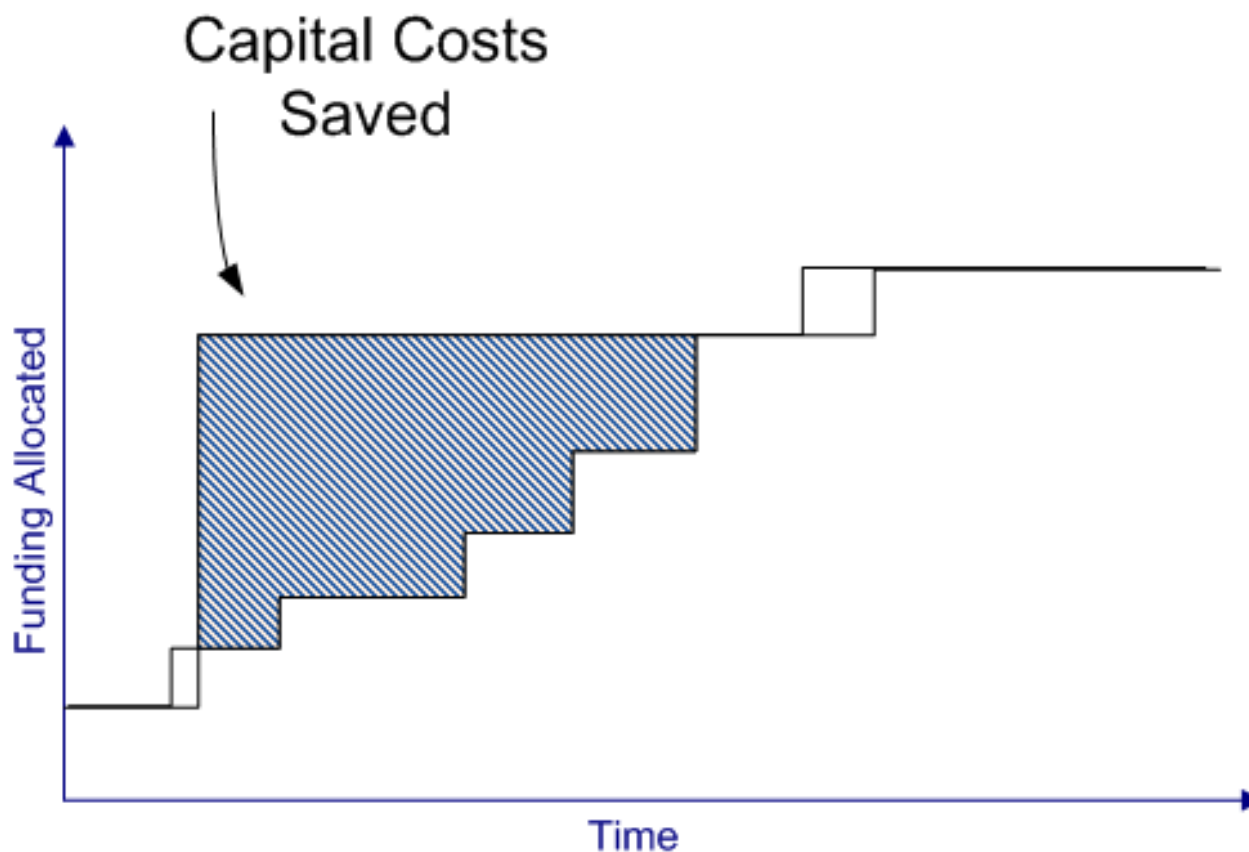


## Product Funding Profile



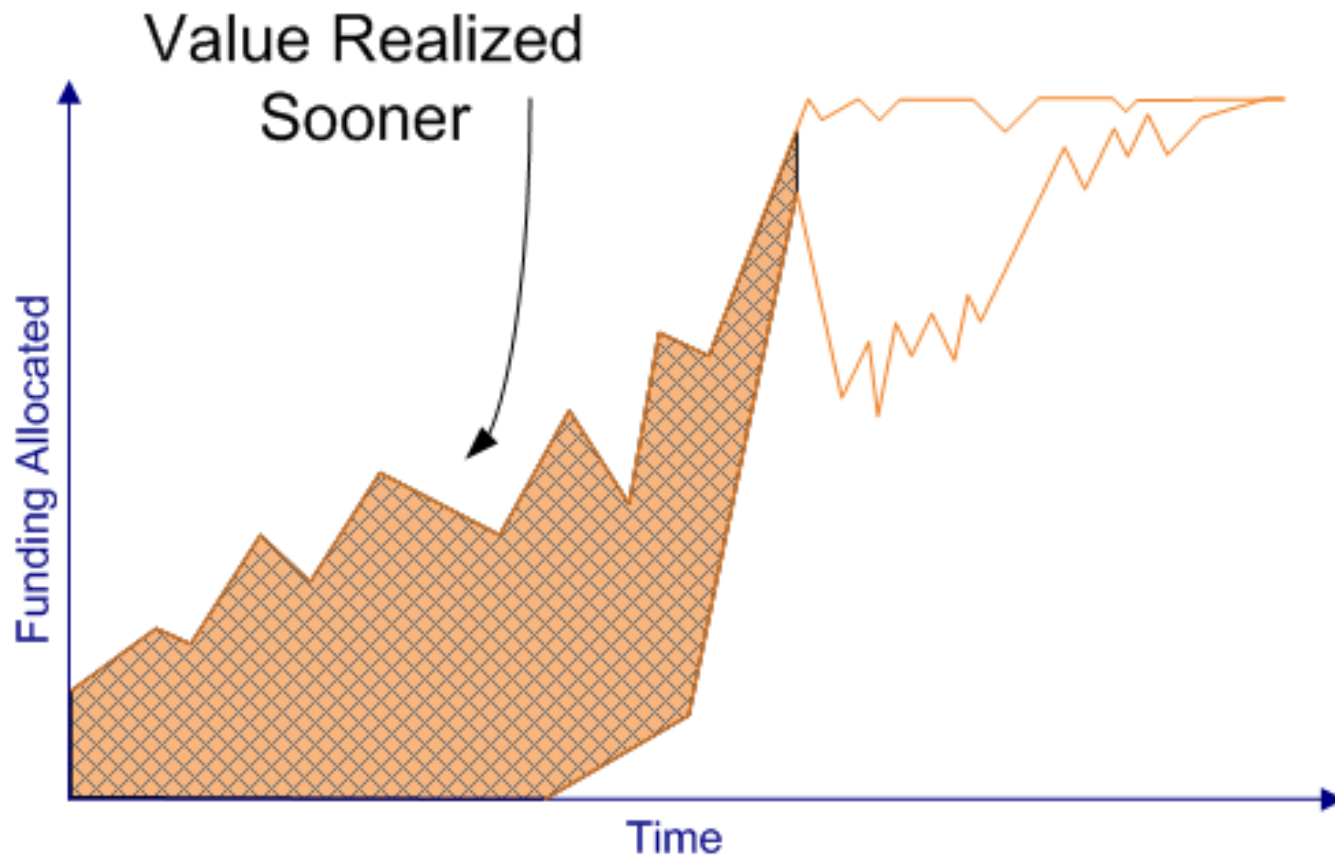


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Energy Assistance

Disconnects/Reconnects  
Business Process

Payment Extensions

Lack of Contract

Automated Phone Calls

Connects

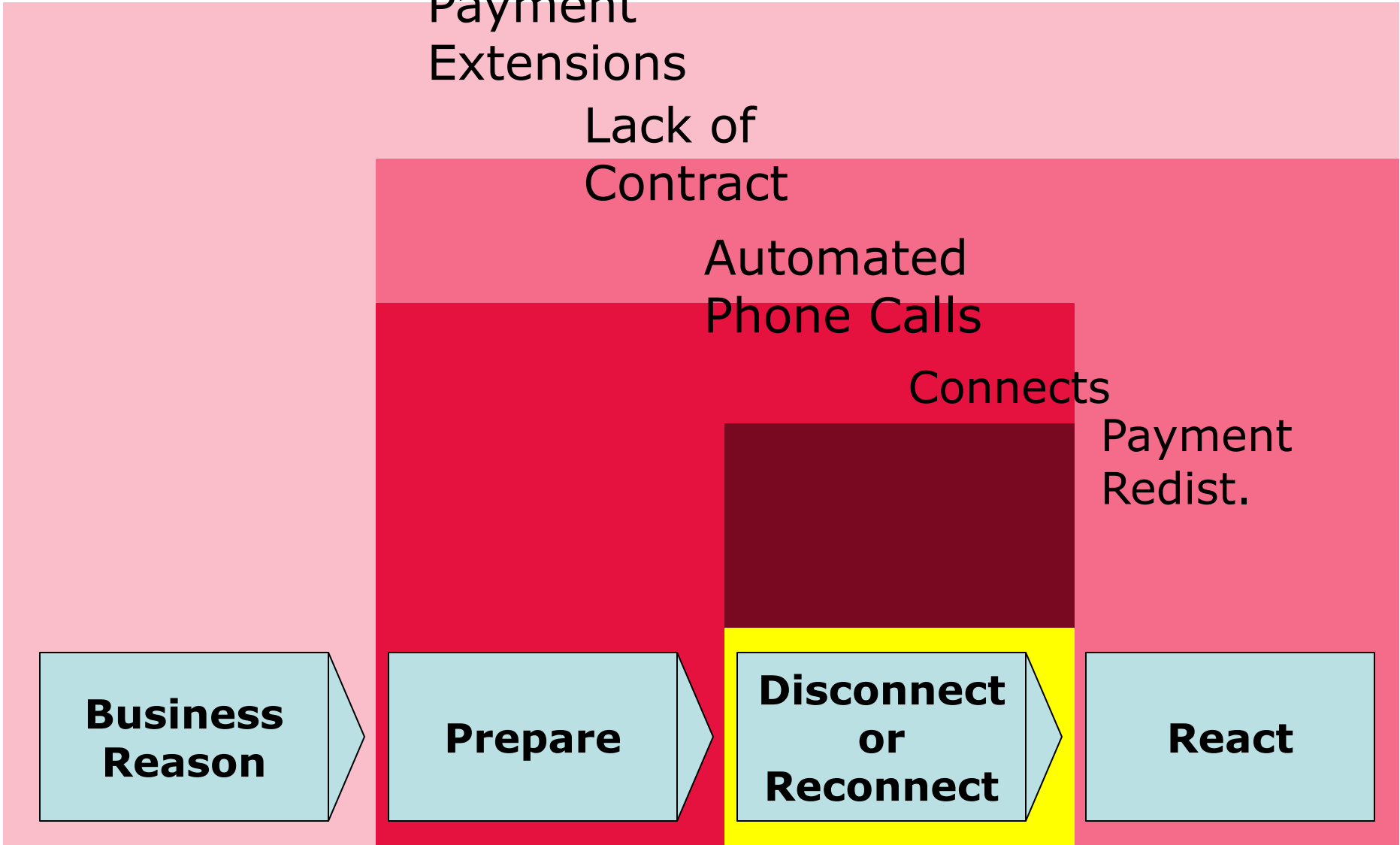
Payment Redist.

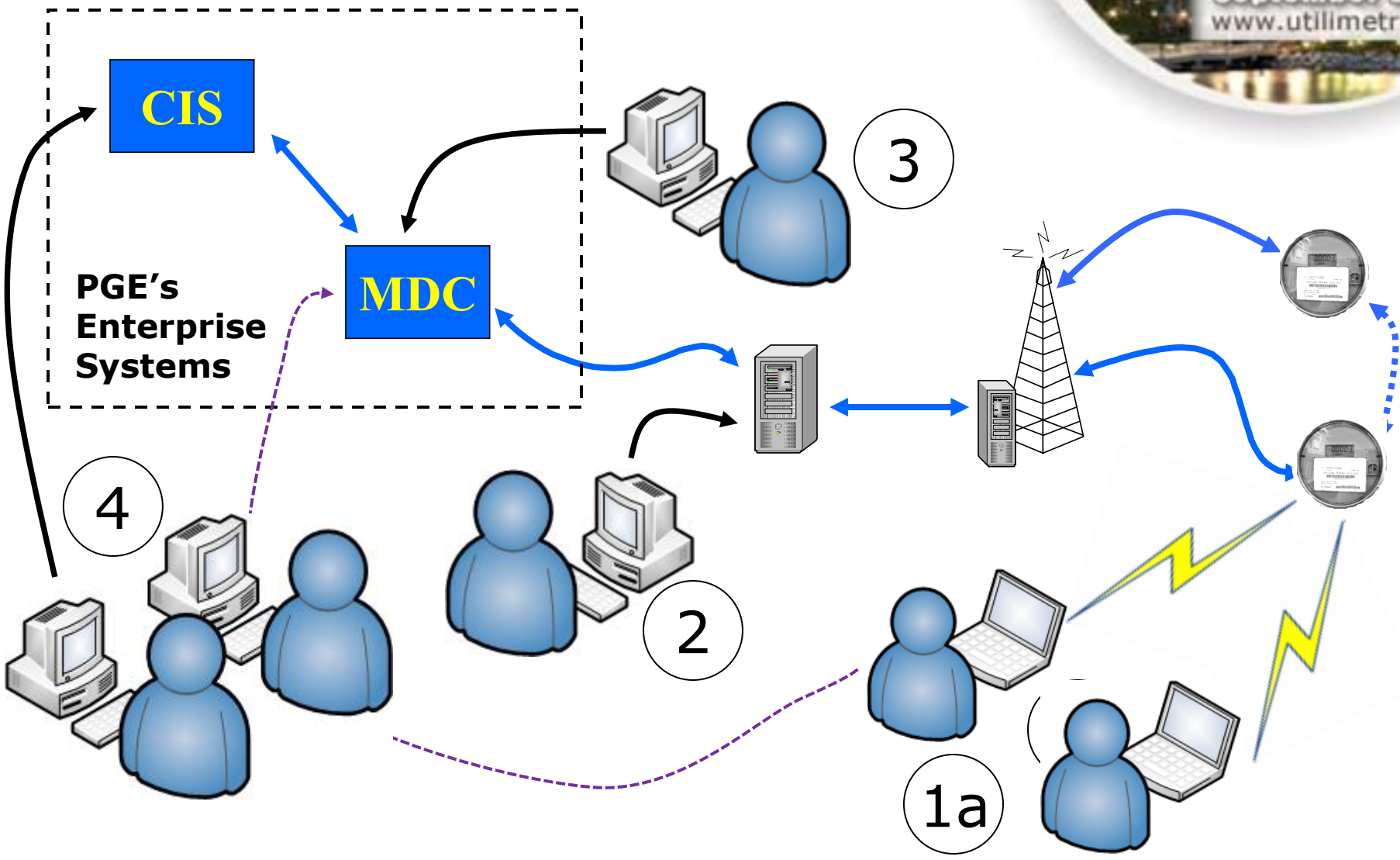
**Business Reason**

**Prepare**

**Disconnect  
or  
Reconnect**

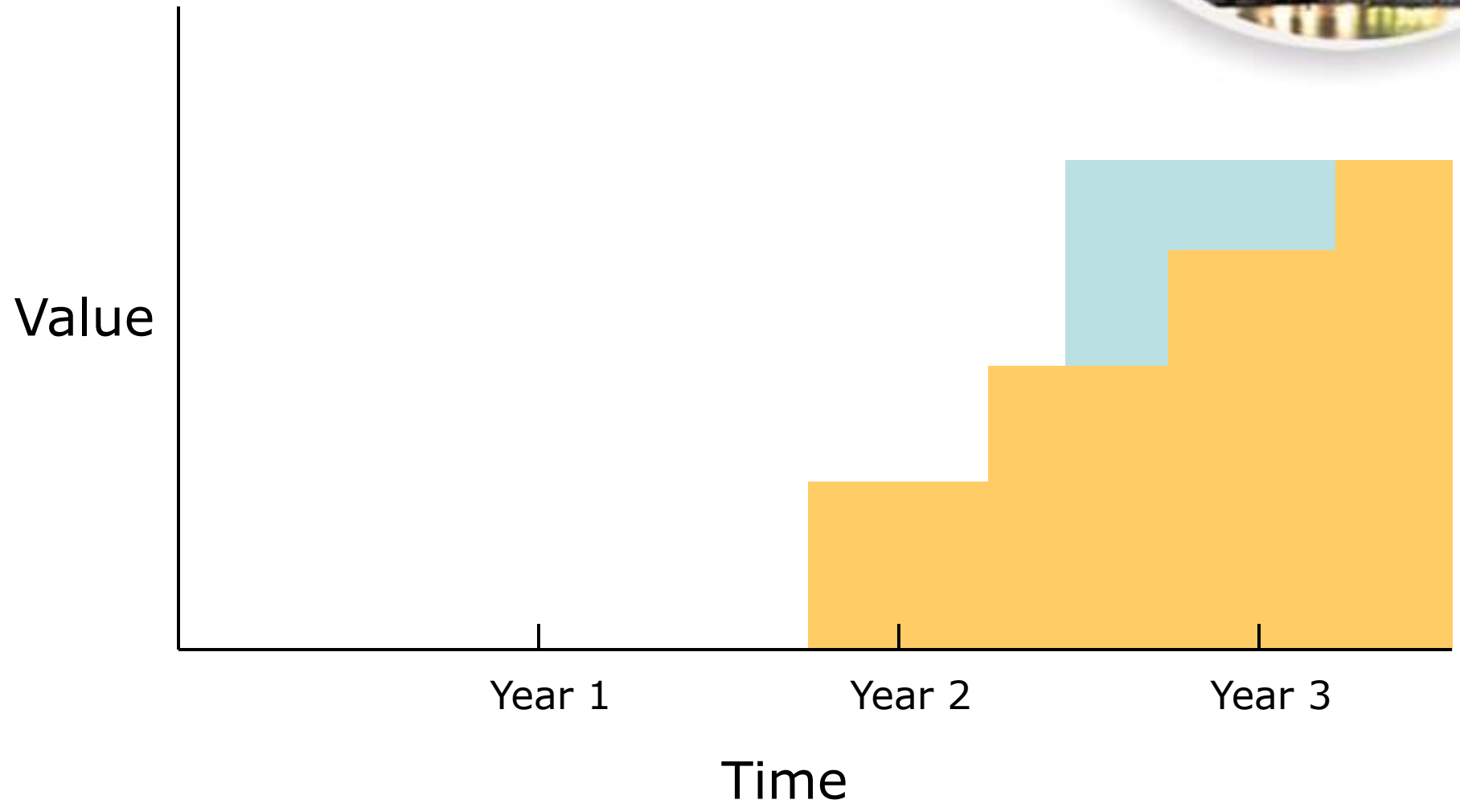
**React**







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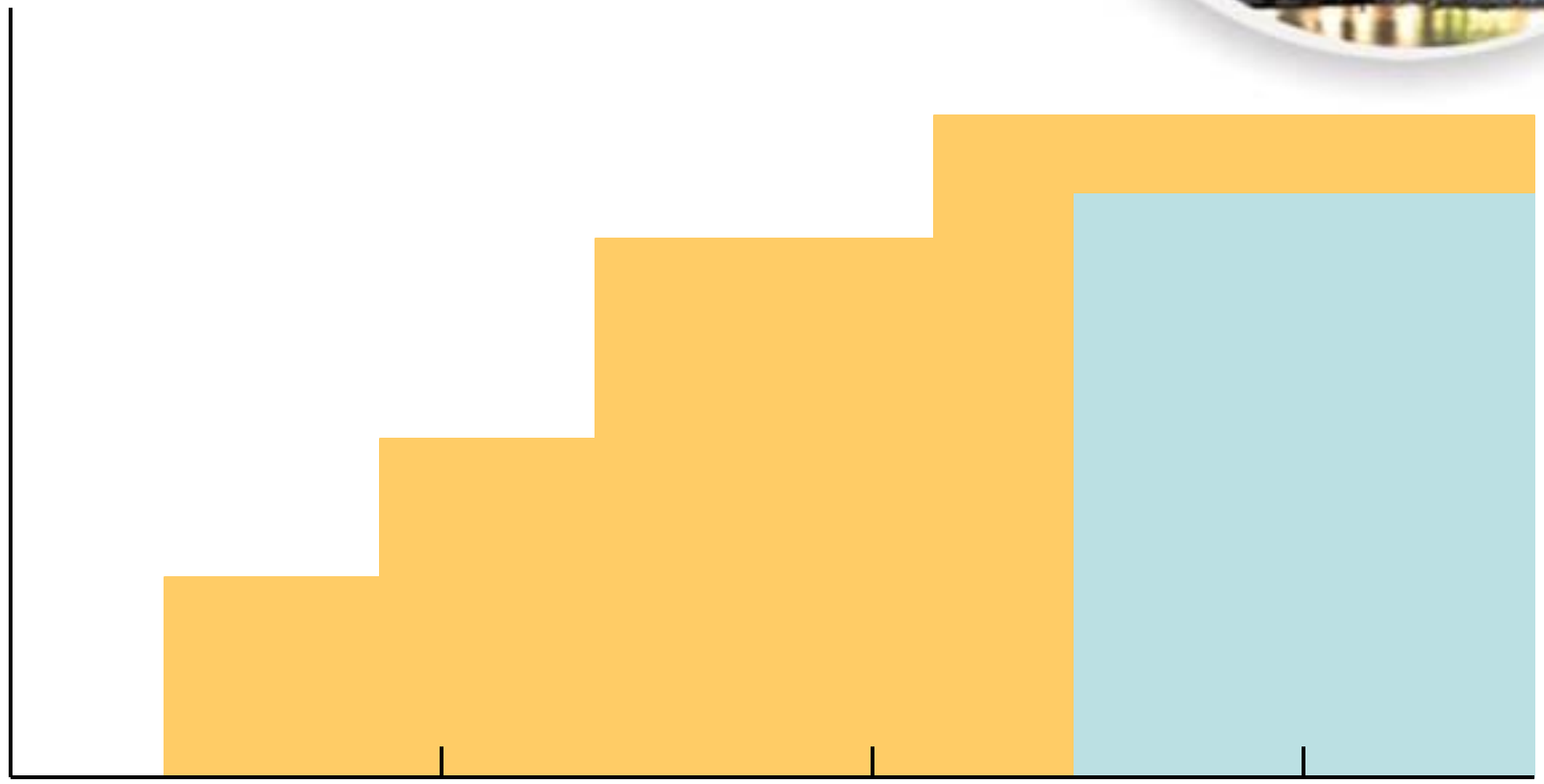
## Stepwise Investment Checks

- ✓ Deliver Business Value
- ✓ Reduce Risk
- ✓ Address Cultural Factors
- ✓ Increase Knowledge
- ✓ Business Decision to Move Forward



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Value

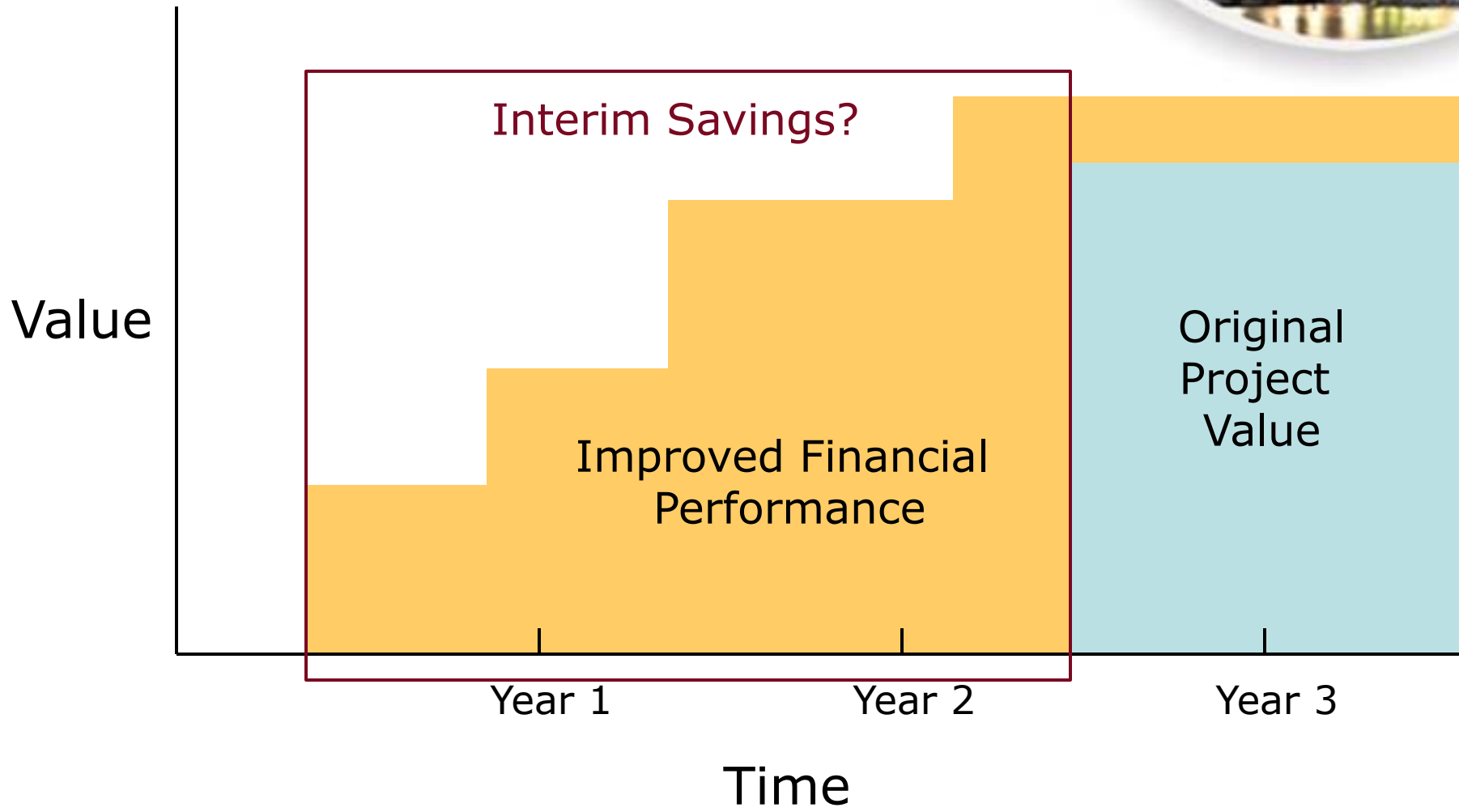


Year 1

Year 2

Year 3

Time



## Maximizing Value From Business Process Changes:

- Fail fast to learn fast
- Deliver in the right order:
  - Risk first
  - Value first
  - Maximize knowledge gained
- Stop investing when you identify a more valuable investment

Are You  
Steering by  
Scope or by  
Value?





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# Thank You!

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