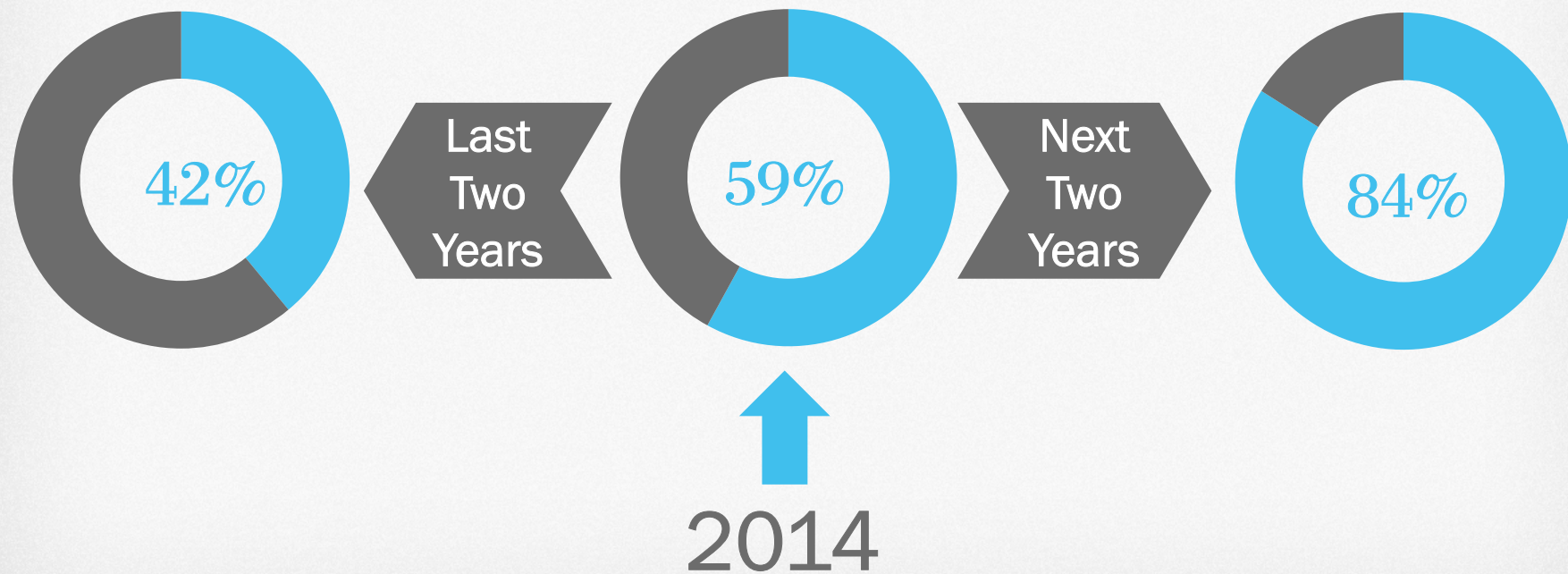


# U.S. BIM ADOPTION IS ON THE RISE

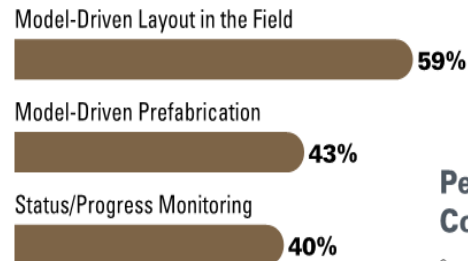


# WHY SHOULD WE CARE?

## BIM to Field Certainty = Increased ROI

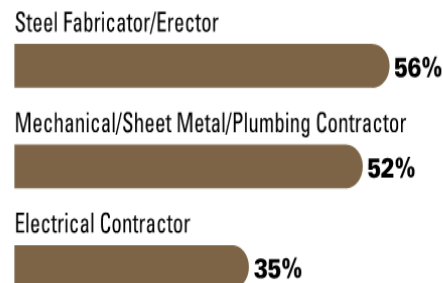
### Percentage of Contractors Citing Activity as One of Top Three Ways Their Organization Leverages BIM During Construction Phase

Source: McGraw Hill Construction, 2013



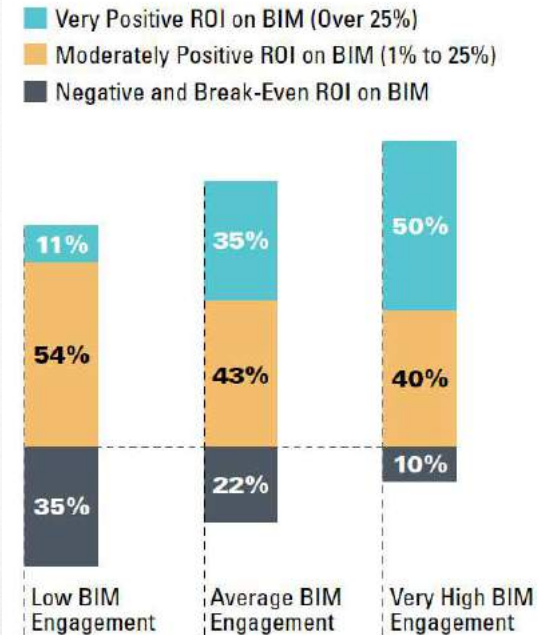
### Percentage of General Contractors Rating Trade Contractors' BIM Skills as High/Very High

Source: McGraw Hill Construction, 2013



### Impact of Contractor's BIM Engagement Level on ROI

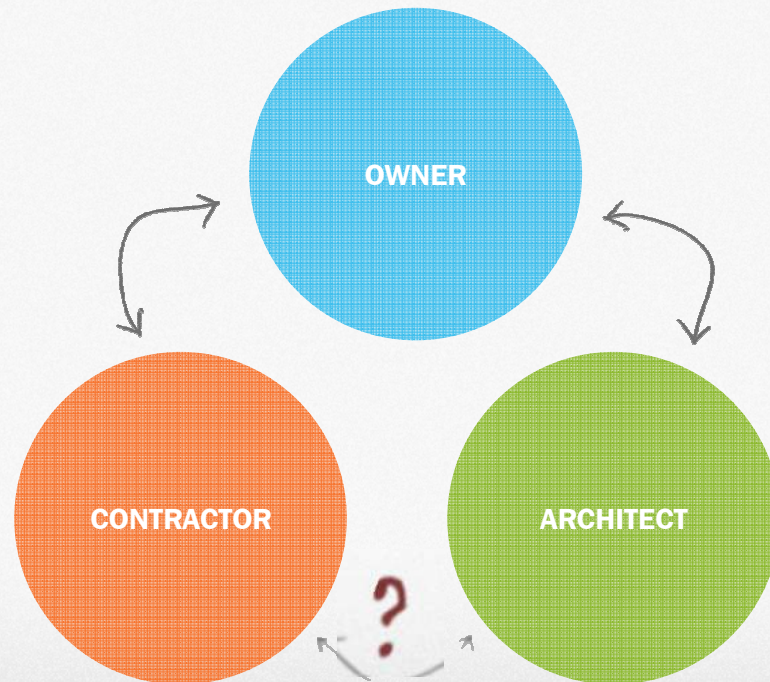
Source: McGraw Hill Construction, 2013





# THE INCENTIVE TO INVEST IN BIM

Does Risk = Reward? Depends on the Contract

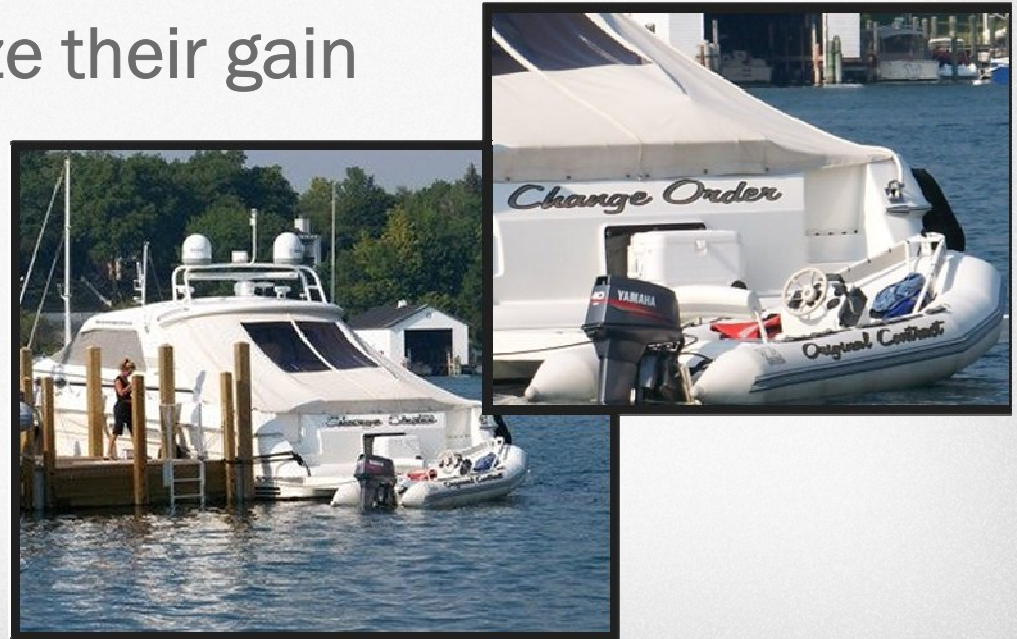


# THE STRUGGLE TO FIND SYNERGY

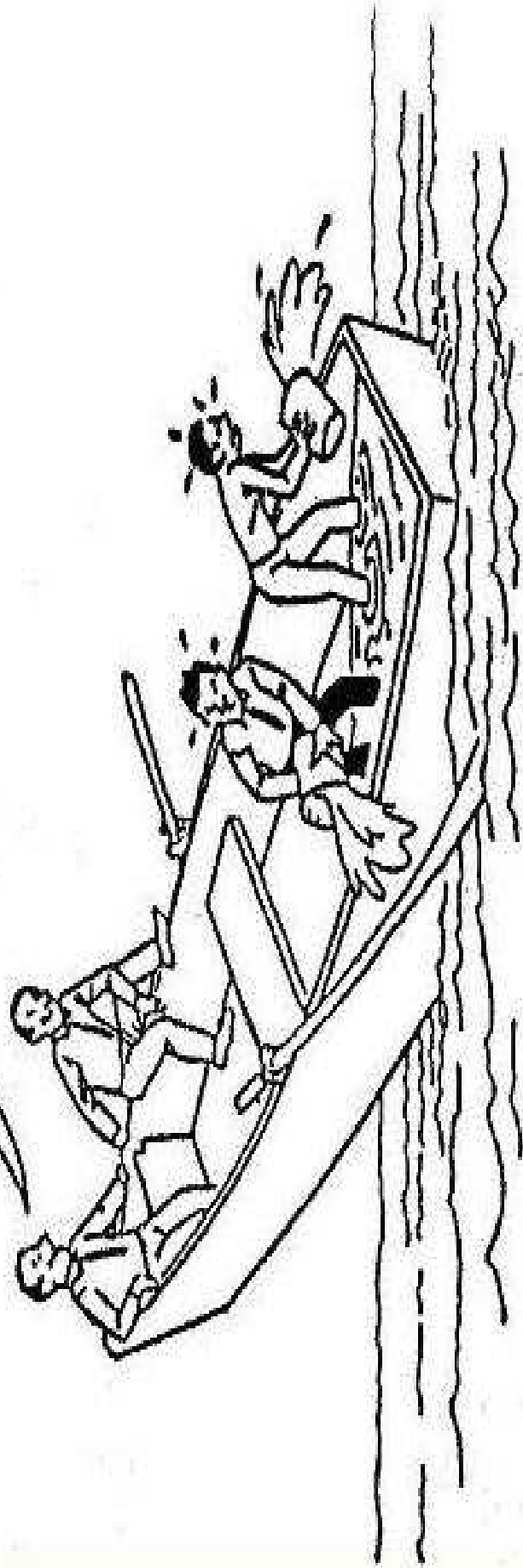
Just Follow the Money

“Virtually everyone in the construction supply chain works on contracts where the incentive is to maximize their gain at the expense of others”

*Macomber, John D. 2003 ASCE Report:  
“Follow the Money: What Really Drives  
Technology Innovation In Construction”*



*I'm sure glad the  
hole isn't in our end...*





# WHO BENEFITS MOST FROM BIM?

A.K.A – Who should pay for it?



# THE DPR BIM JOURNEY

Where are we headed?



# THE PRODUCTIVITY IMPERATIVE

## MEGAPROJECTS (over \$1 Billion)

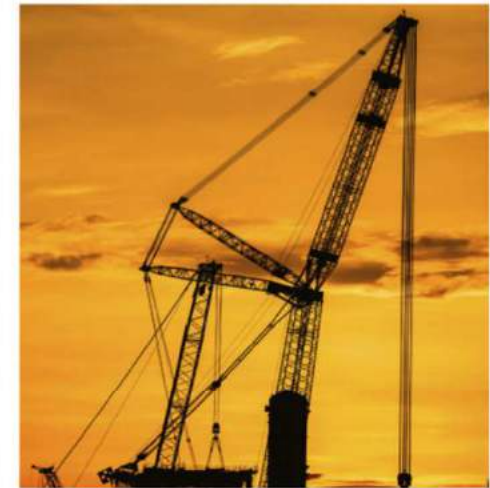
- **98% of projects** incur cost overruns or delays.
- The average **cost increase is 80%** of original value.
- The average **slippage is 20 months** behind original schedule.

## ROOT CAUSES

- **Poor organization.** Decision-making and procurement processes do not have the speed and scale required.
- **Inadequate communication.** Inconsistencies in reporting mean that subcontractors, contractors, and owners do not have a common understanding of how the project is faring at any given time.

### The construction productivity imperative

McKinsey Productivity Sciences Center June 2015



McKinsey & Company



# ROOT CAUSE: POOR INFORMATION HANDOFF



Design  
Vision

Plan &  
Coordinate

Fabricate  
& Build

Inspect &  
Maintain

# DON'T FEED THE HYPE!

Focus on Education & Training, Not Selling



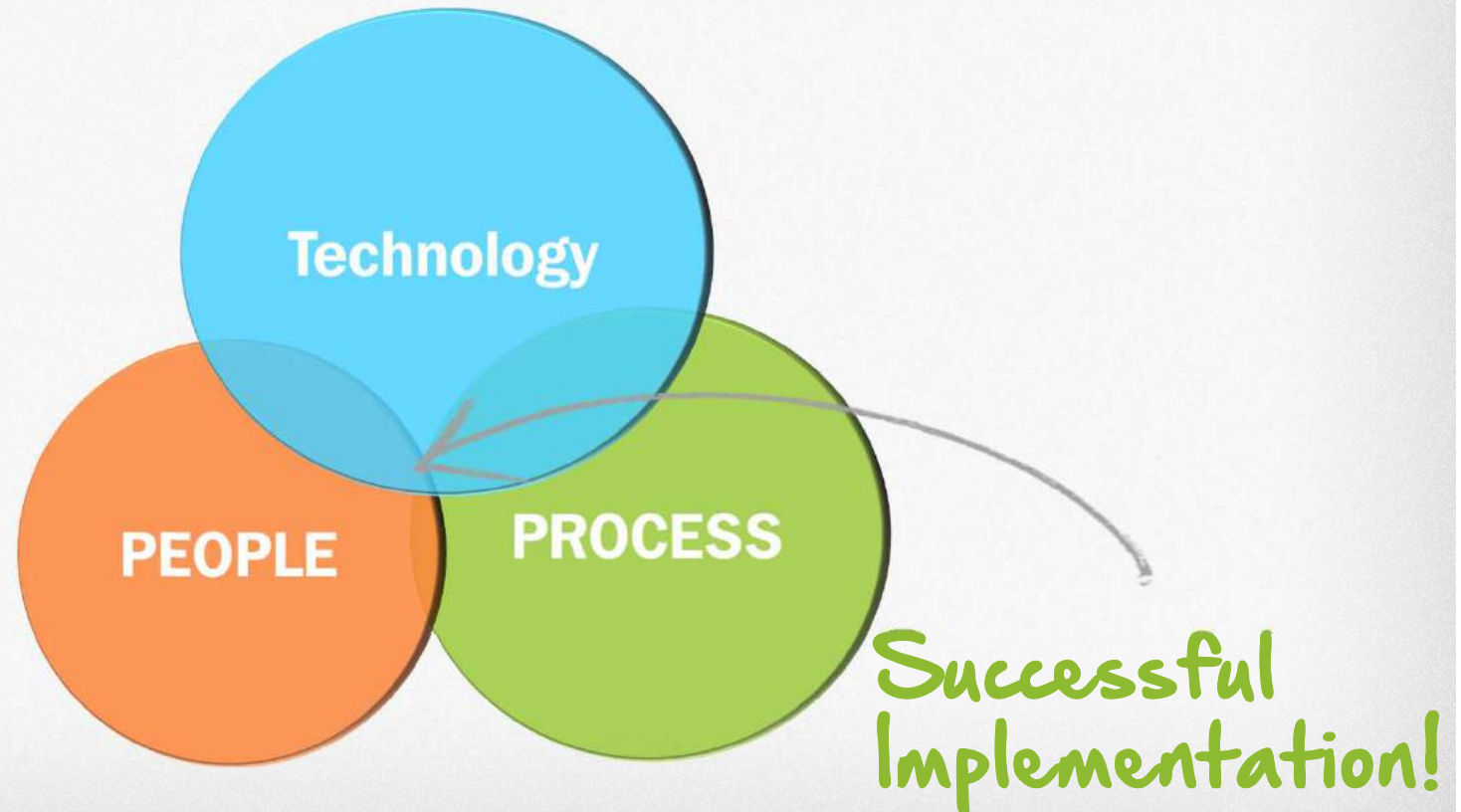
“BIM solves ALL  
of our problems!”



“You sold them what?!?  
We can't do that!!”

# HOW DO WE TRANSCEND IT?

The Three Components of Change





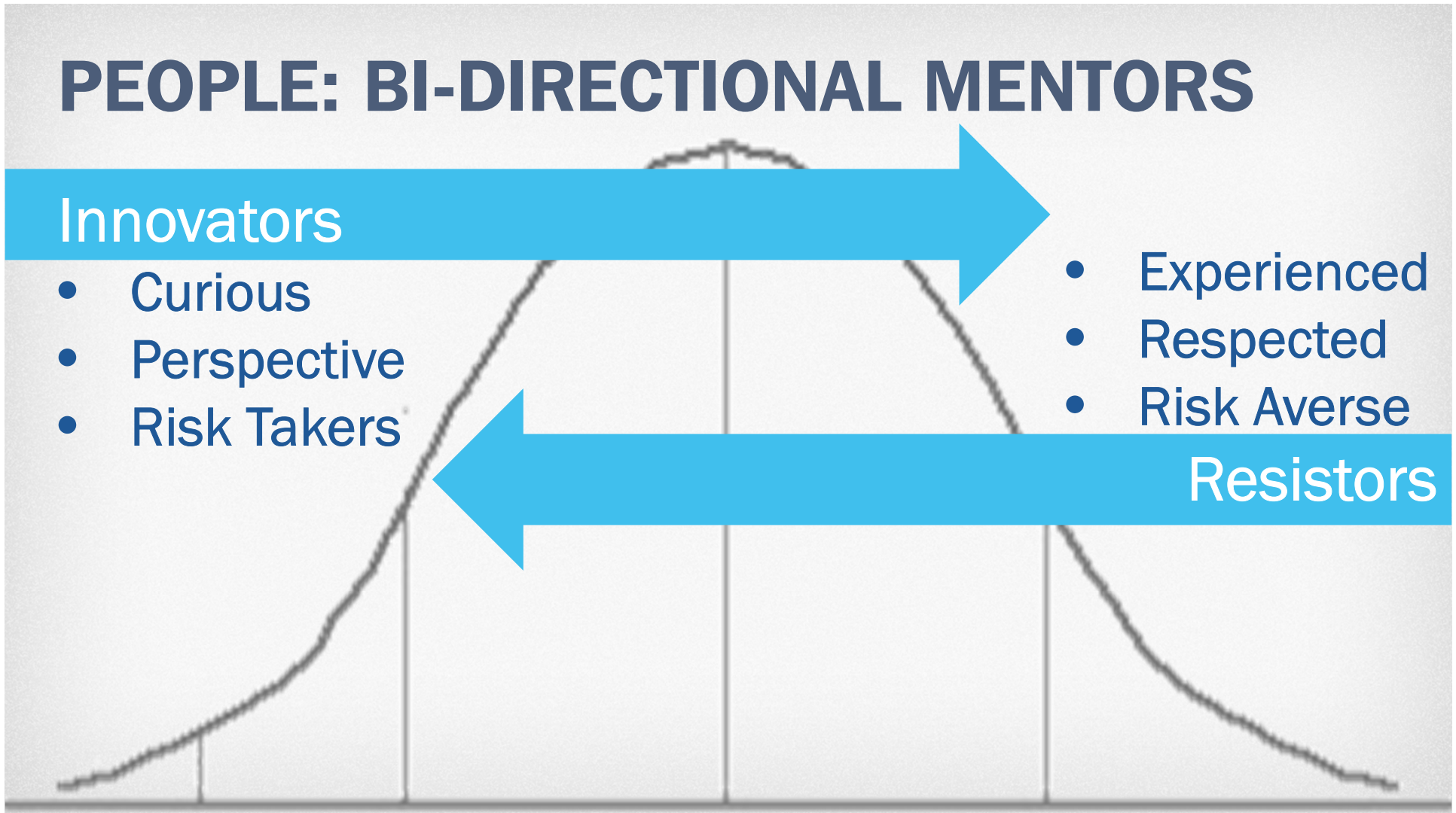
# PEOPLE: BI-DIRECTIONAL MENTORS

## Innovators

- Curious
- Perspective
- Risk Takers

- Experienced
- Respected
- Risk Averse

## Resistors



# PEOPLE: A BIM USER CERTIFICATION?

- Benefits of Broad User Certification

- Level Playing Field
- Baseline Measurement
- Collect Meaningful Data

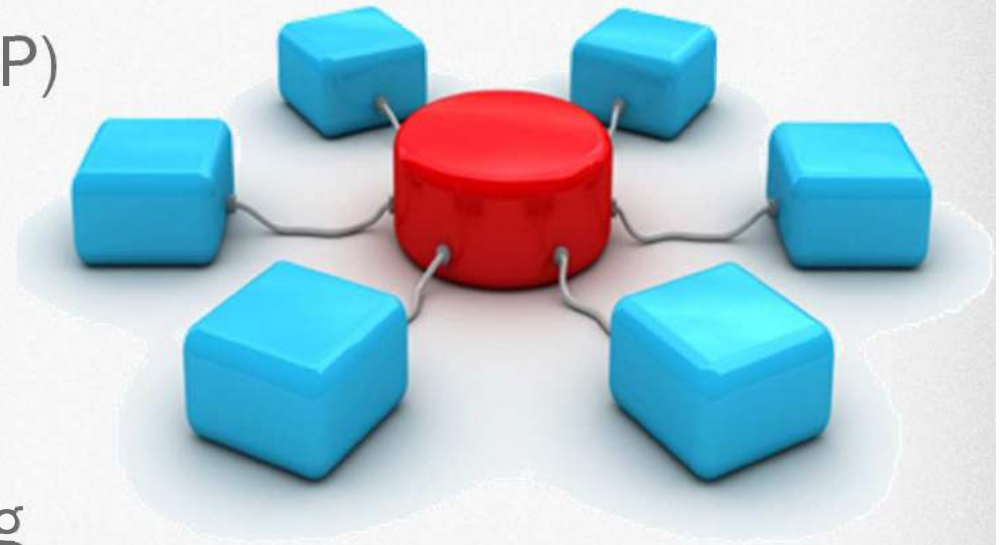
- We Need a “LEED AP for BIM”

- [www.VirtualBuilders.com](http://www.VirtualBuilders.com)



# PROCESS: CONTRACT LANGUAGE

- Relational Contracts
  - (IPD, Design/Build, PPP)
- Data Transparency
  - Measure....Everything
- Shifting the Paradigm
  - Collaboration Coaching
  - 'Comfortable with Uncomfortable'





# PROCESS: IS DISRUPTION GOOD?!?

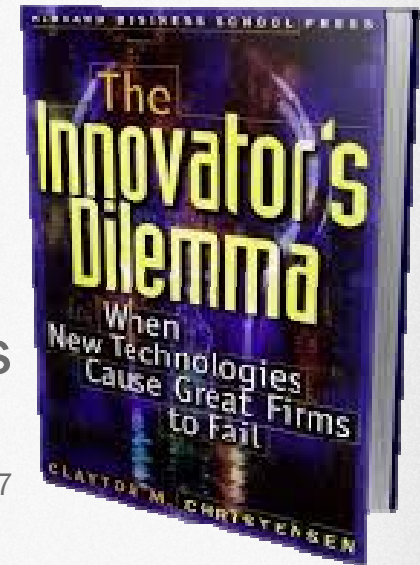
What Disruptive Changes are Necessary?

“It’s more likely...that new firms with new business models and new areas of focus will leverage the financial and technological innovations that will change the nature of competition”

-Clayton Christensen, 1997

“Innovation is driven by technologies that enable the rise of disruptive business models”

-Bower and Christensen, 2000

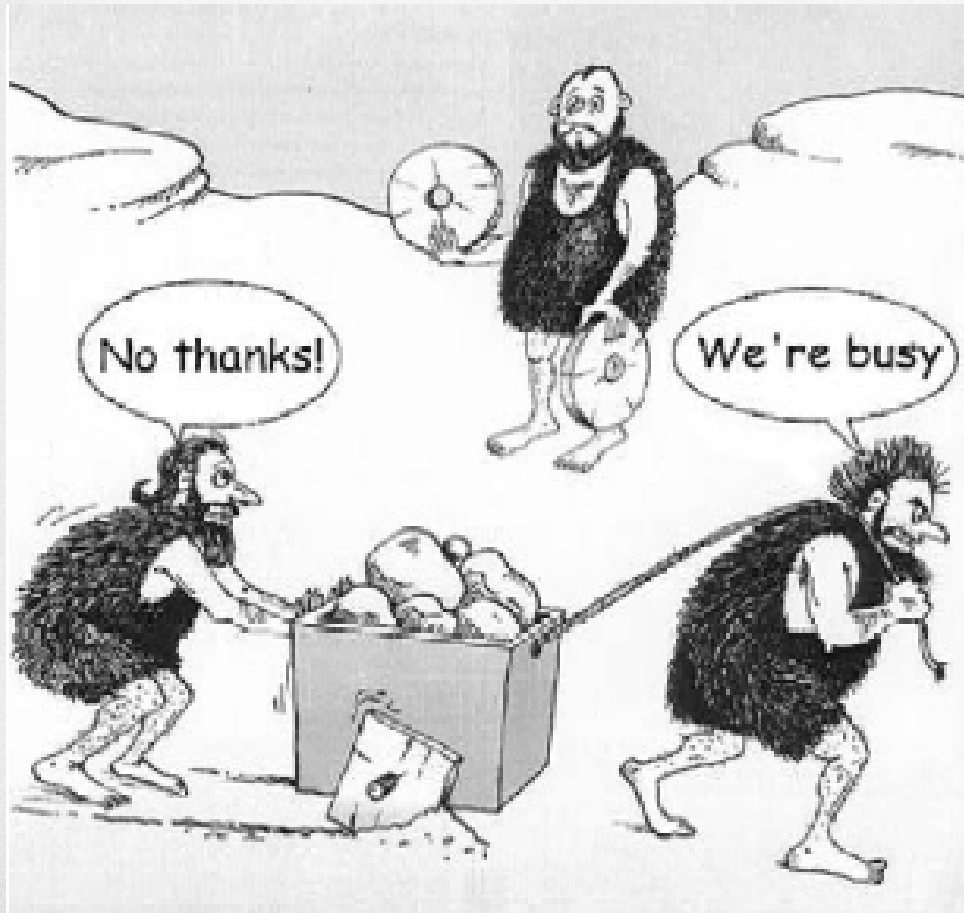


# PROCESS: STANDARDIZATION

- Standard Types, Not Tools
  - IFC, BCF, XML, PDF
- Industry Guidelines
  - Template Style
  - Filled out Collaboratively
- Project Standards
  - Decided Collaboratively
  - Team Buy-In & Understanding



**IT'S TIME TO CHANGE THE WHEELS...**



**...ARE WE READY?**



# THANK YOU! QUESTIONS?

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+1 (650) 454-5334



# TRANSFORM OUR WORLD