

Disruption, Transformation and Innovation in the AEC Industry

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#BIMcentric

Class summary

This round-table discussion will focus on answering the following questions:

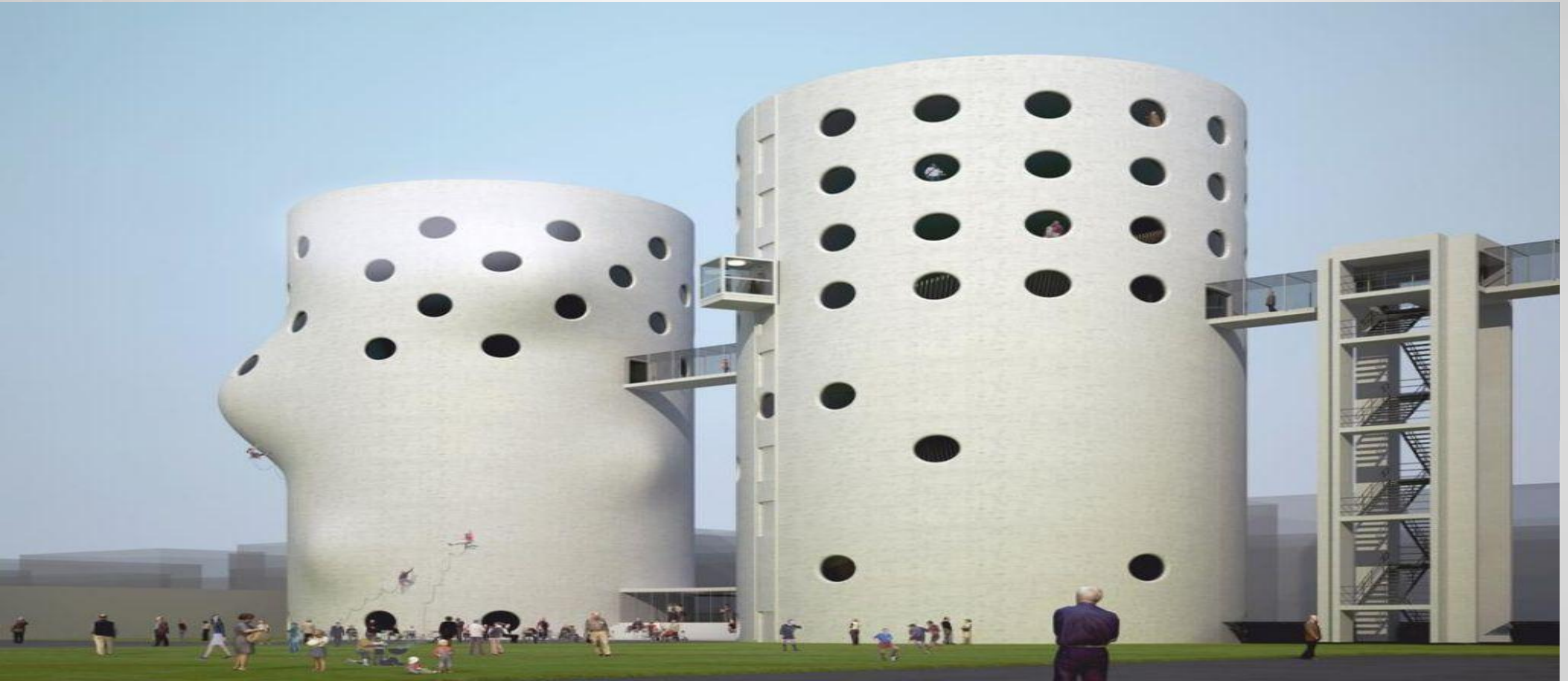
- Is the AEC industry being disrupted?
- How do AEC firms drive innovation that allows them to thrive in a disruptive and highly competitive business environment?
- How is the AEC industry being transformed and what other transformation is needed?

Key learning objectives

At the end of this class, you will be able to:

- Understand how the AEC industry is being disrupted
- Learn how architecture, engineering, and construction firms are being impacted by industry disruption and transformation
- Learn how associative thinking can drive innovation in AEC firms
- Learn what emerging technologies will impact the future of the AEC industry.

Coming out of our silos-What's going on?



- Rebuilding from the Great Recession
- Our new connected and increasingly digital world
- Networks are now critical

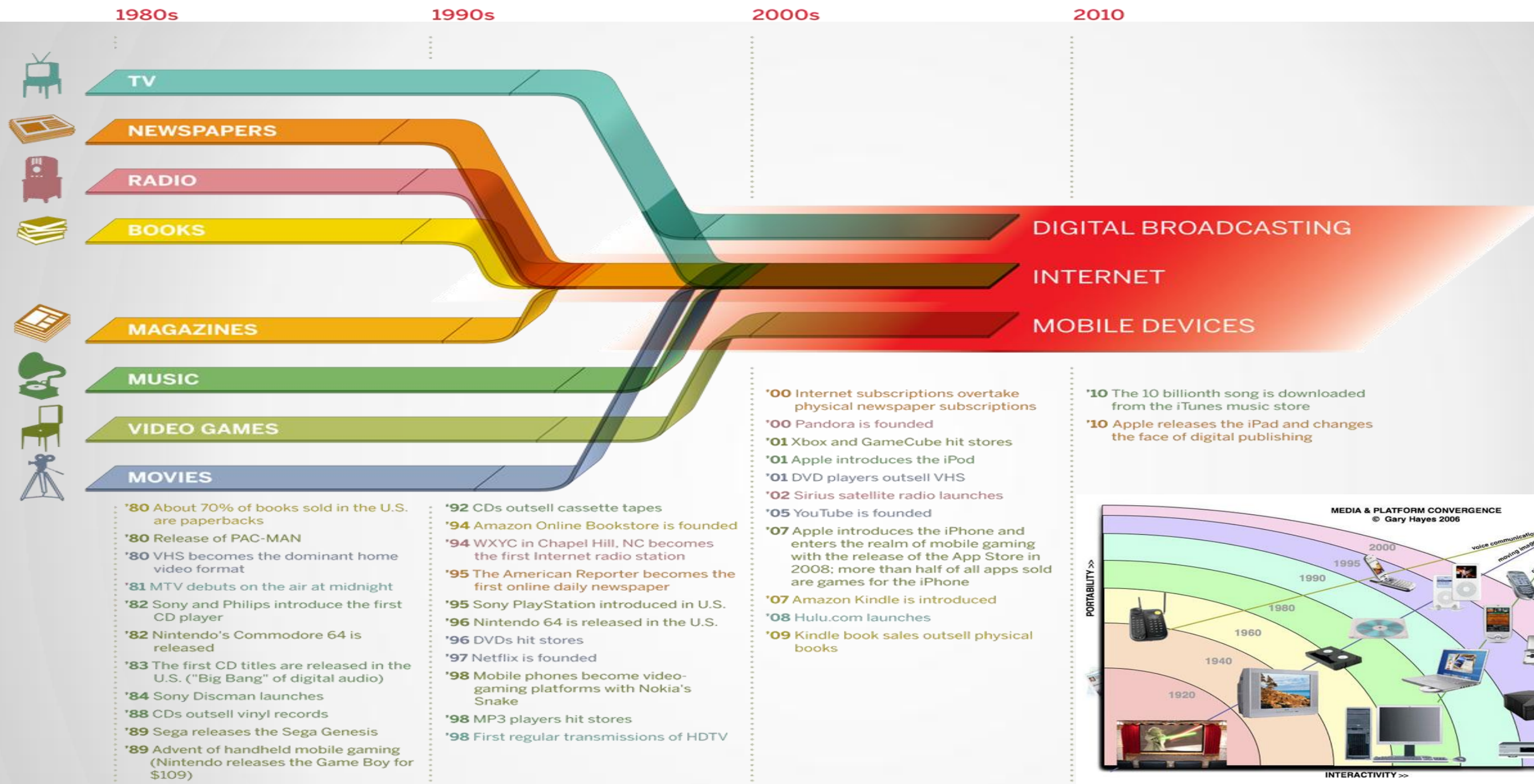
Is the AEC industry being disrupted?

Disruptive
Innovation



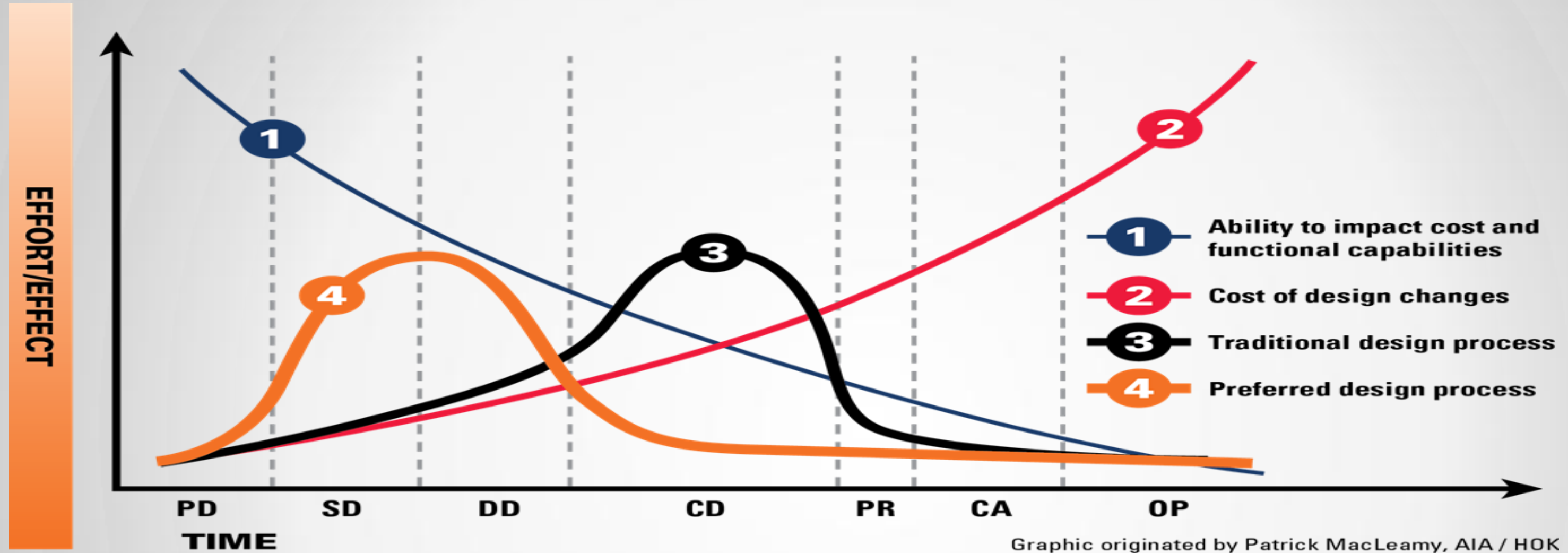
- Innovation drives disruption
- Disruptive-Innovation creates a new market and value network.
- Disruption is not a result of the technology itself but how it is applied.
- Examples

Does technology & process convergence contribute to disruption?



- Ability to create something new by combining two or more technologies or processes.
- In the AEC industry BIM, Lean Processes, Sustainability and Design-Build/IPD are converging.
- In the future anything is possible with digital convergence?

AEC Industry Transformation



KEY

PD: Pre-design

SD: Schematic design

CD: Construction documentation

PR: Procurement

CA: Construction Administration

OP: Operation

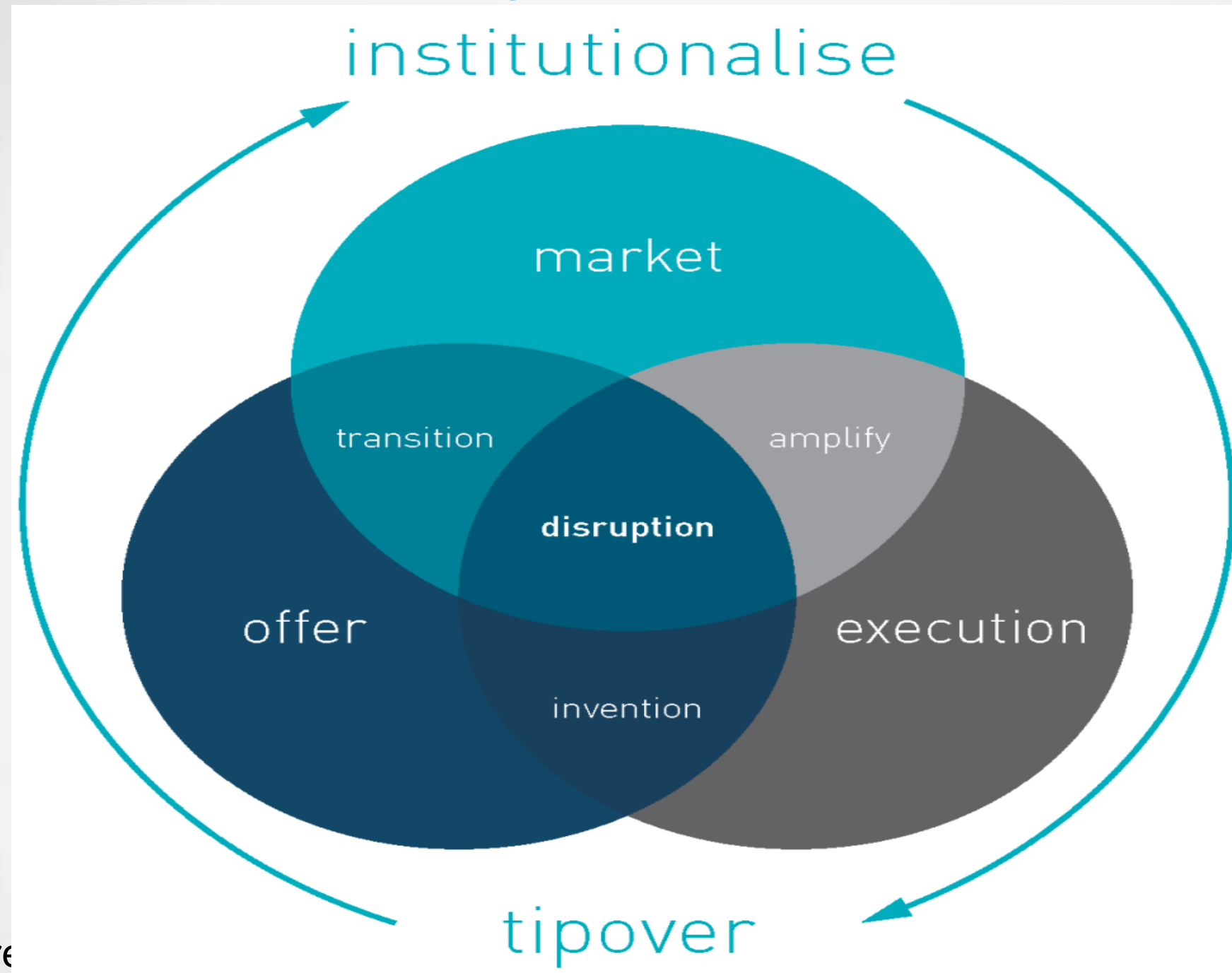
- New ideas, insights, technologies and processes
- New products
- New services and competitive environment
- Cultural changes

Transformation: The Human Element and Change



- Human's naturally resist change
- Changing the culture
- Focus on your innovators

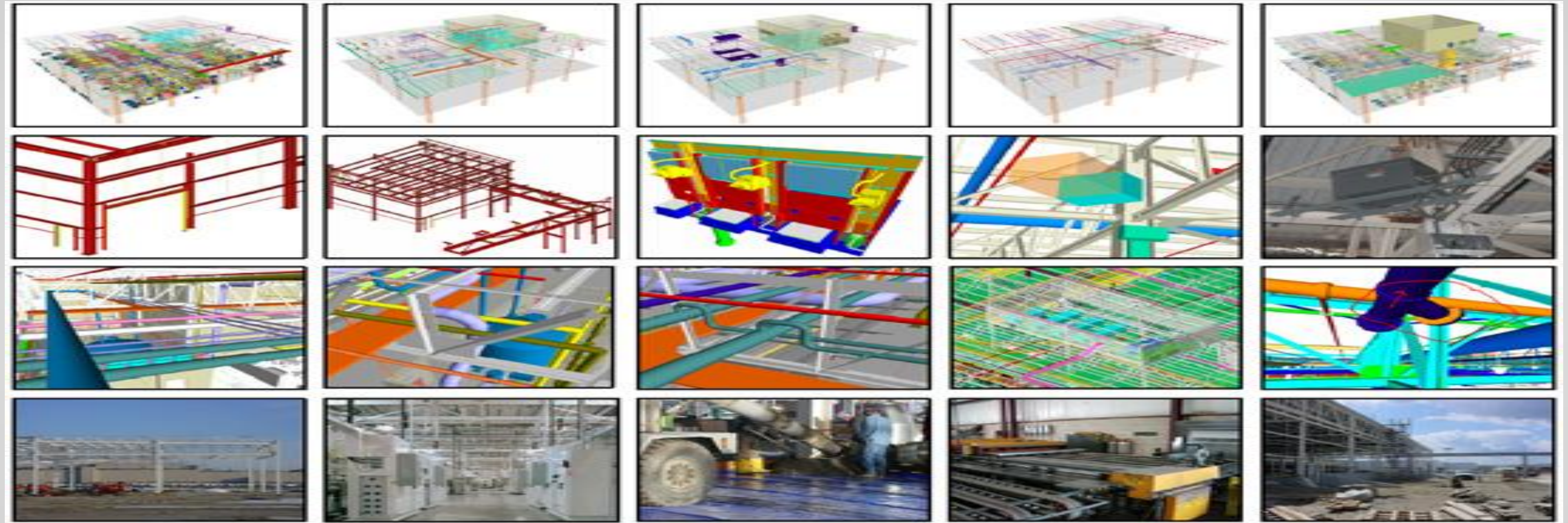
Coping with AEC Industry Disruption and Transformation



- Leadership
- Strategy
- Getting to the Future
- Organizational Structure
- The Human Element and change
- Become a High Velocity Organization
- Look For Blue Ocean Opportunities

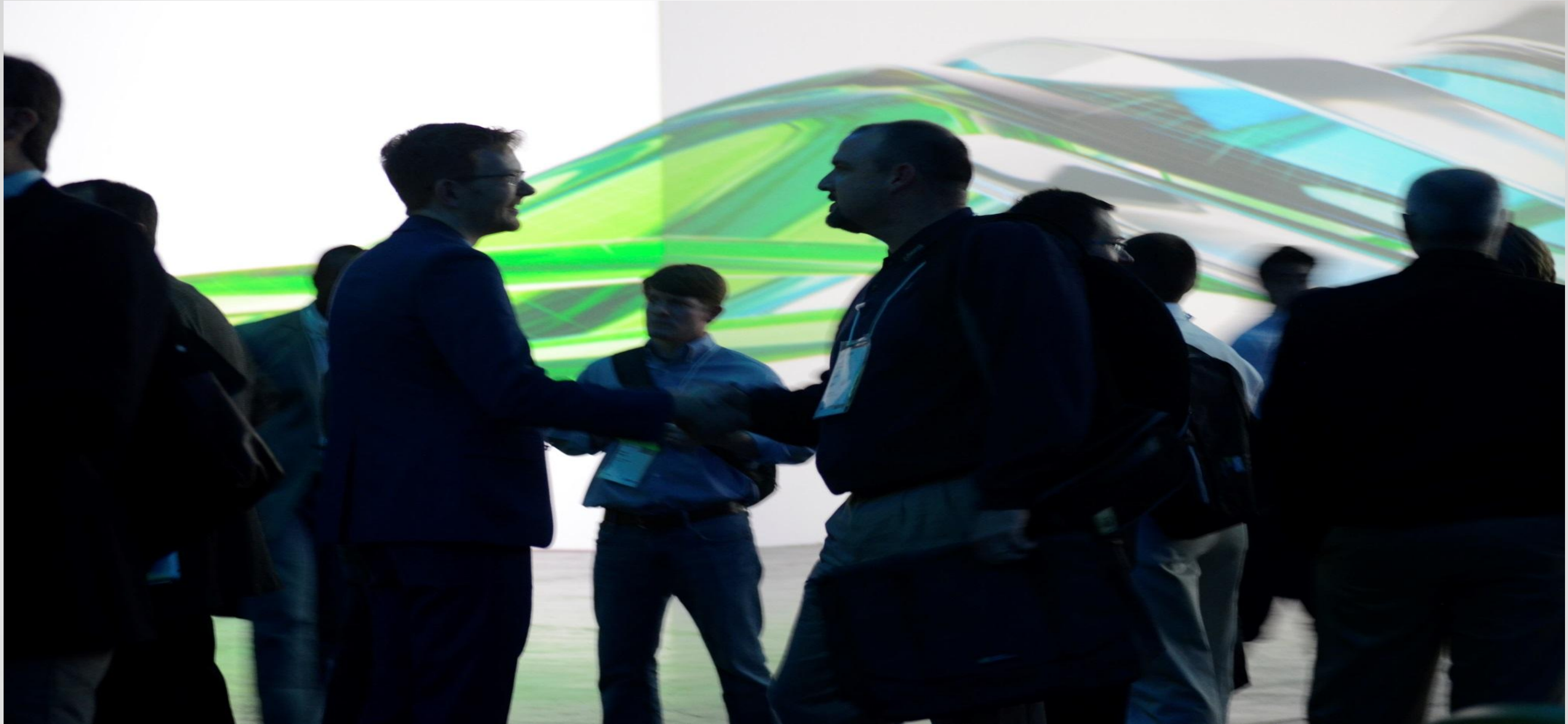
Is the nature of AEC industry innovation unique?

Why? Do we need to innovate like other industries?



- Strong relationship with the human experience and the built environment
- Multi-disciplinary and temporary project teams solving continuous problems
- No prototypes prior to final version!
- Scale and complexity
- Global logistics
- Large capital expense, long term life span and enormous use of resources/energy

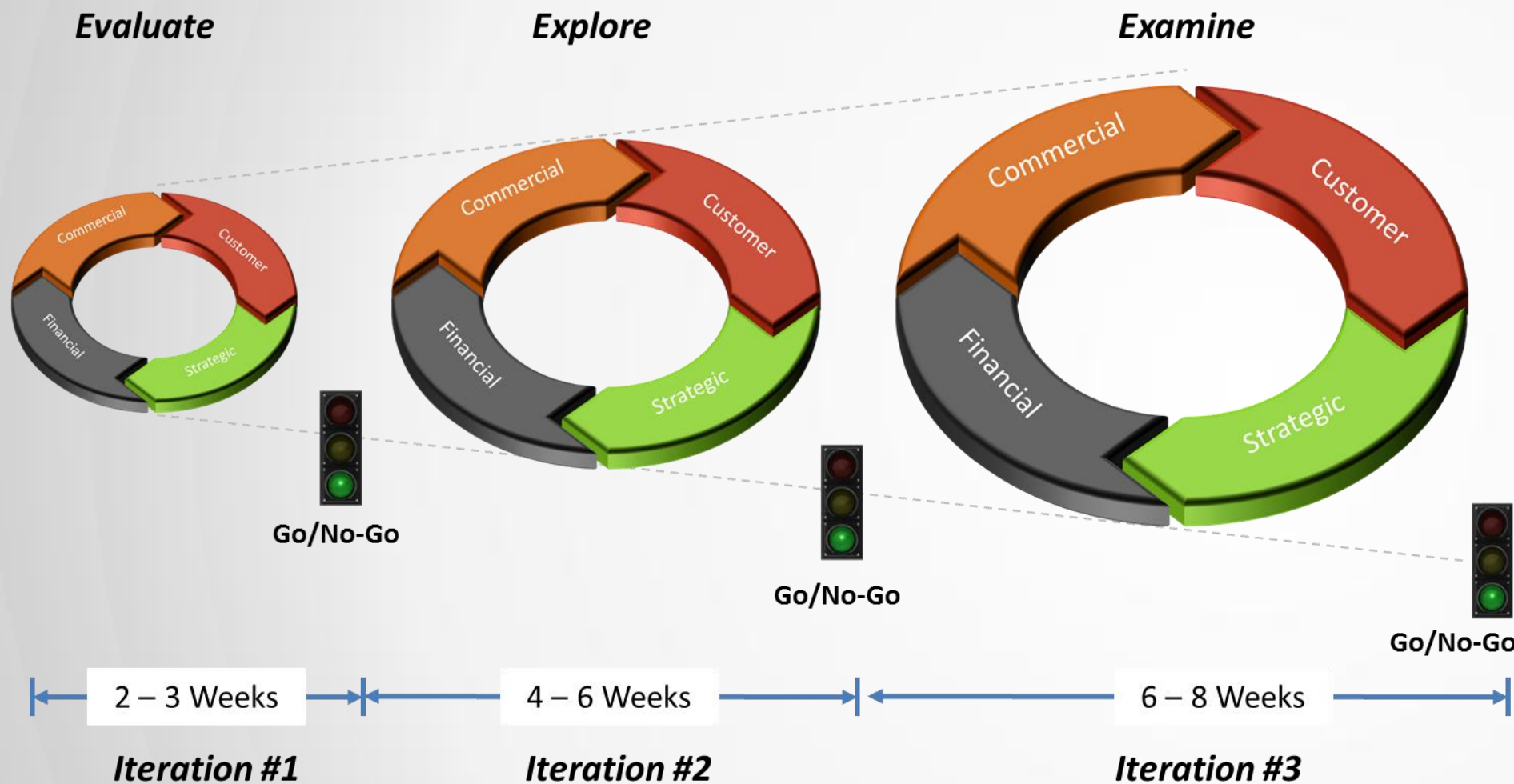
What drives AEC industry innovation?



- Processes
- Forces
- Human factors
- Competition
- Growth and increased profitability

Associating is Where Innovation “Happens”

Iterative Innovation Process



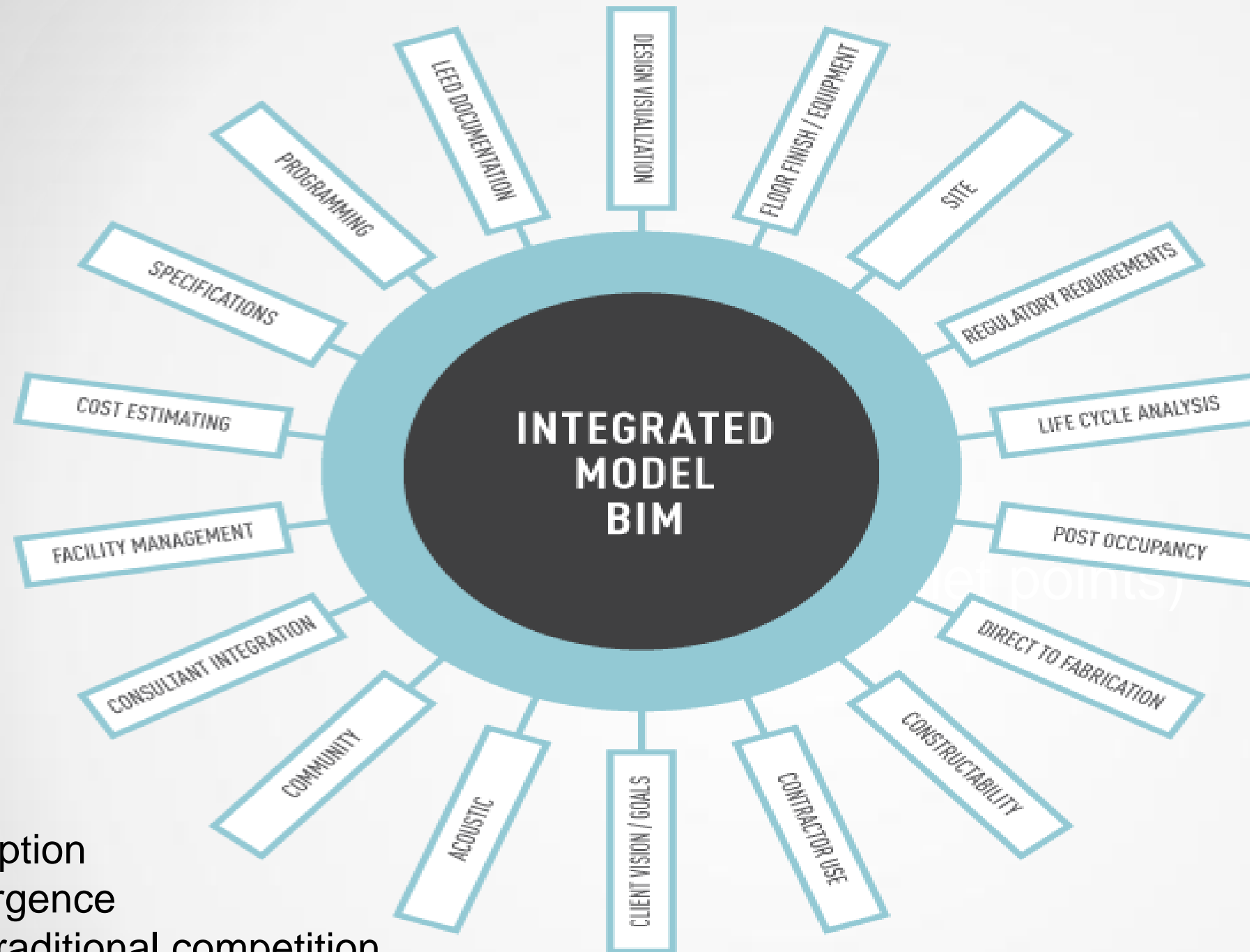
- Do innovations happen at all levels and in different sizes?
- Do culture and experience influence innovation?
- Does diversity foster innovation?
- Does collaboration foster innovation?

AEC Industry Innovators Think Differently But Must Also be Courageous!



- Innovators are associated thinkers (ability to “connect the dots” that others cannot)
- Desire to change the status quo
- Pursue new diverse information and ideas
- Exquisite communicators
- Systems and integrated thinker

Summary and Conclusion



- Continuous disruption
- Increased convergence
- Global and non-traditional competition
- Cloud/mobile computing/Artificial Intelligence/Reality Capture
- Social Media
- Customer experience
- New business insights through our connected talent networks

Thank you

