



WELCOME



“What Does Digital Transformation Look Like from the C-Suite?”

February 24, 2020 | 1:00 PM ET

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- Today’s session will be recorded.
- An archive of today’s talk will be available at: www.sercuarc.org/serc-talks/ as well as on the [SERC YouTube channel](#).
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Context and Disclaimers



- Engineer 2X
 - BS Industrial, PhD Systems, plus MBA
- 8-time CEO including publicly traded company (NASDAQ:nvue) and international JV (Hughes-JVC Technology Corp)
- Installed ERP, SE, MBSE, CRM, PLM, etc, in 10 plus organizations
- Crossed over to the dark (or light depending on perspective) side
 - Teach business at liberal arts university
 - Spend most of my time thinking about systems in relation to leadership, OB, philosophy, the social sciences

Fundamental difference in viewpoints

1. C-Suite/Senior leadership is charged with looking outward and forward
 - Customer/beneficiary opinions and interaction
 - Market share/Mission success
 - Scale and reach
 - Earnings/impact
 - Internal performance as a means to deliver the above
2. Digital transformation is fundamentally focused inward and downward
 - Often technology centric

To be successful SEs must couch digital transformation in terms that engage the C-Suite and senior leadership using their lenses, language, and metrics

Major Financial Institution

Is your enterprise a system?

84 yes 100%

Is your enterprise a sub-system of the larger system X?

84 yes 100%

Is your division/department a system and a sub-system of ?

84 yes 100%

Have you ever studied systems theory, systems science, systems dynamics, systems thinking, systems engineering?

3 Yes 3.5%

There is no alternative to digital transformation. Visionary companies will carve out new strategic options for themselves...

... those that don't adapt, will fail.

Jeff Bezos, Amazon



90% of CEOs believe the digital economy will impact their industry, but less than 15% are executing on a digital strategy

MIT Sloan and Capgemini

The reality is many digital transformations fail because companies aren't integrating their business and technology strategies from the start.

Chris Bedi, CIO of ServiceNow



Most large enterprises are remarkably siloed
Bounded rationality is the norm

Major Manufacturer

Committed to digital transformation. Announced to analysts with specific project(s) and dues dates

5 “departments”

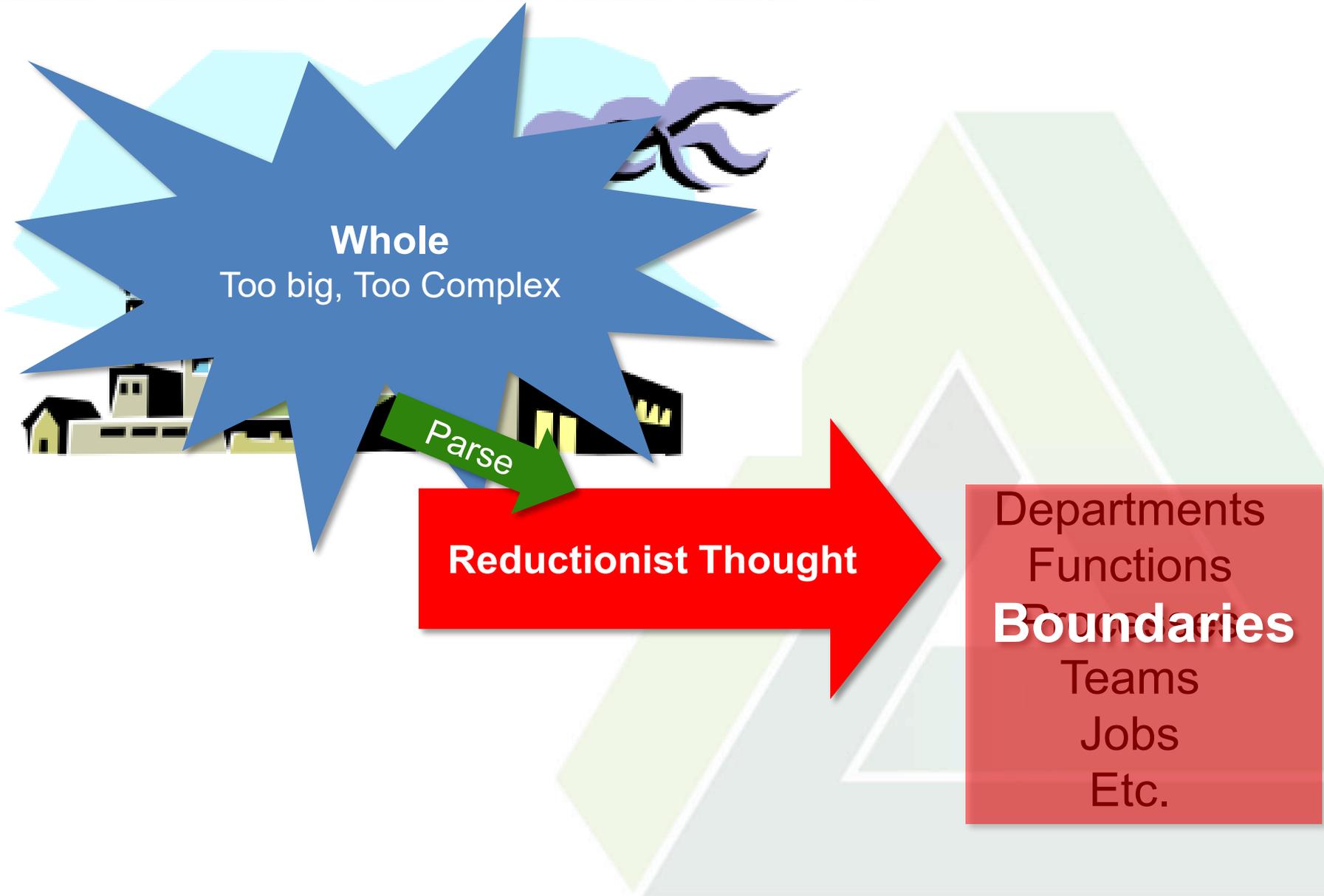
4 different plans for digital transformation with different language, timelines, toolsets...

Boundaries

“In the real-world boundaries don’t exist. There are no separate systems. The world is a continuum.”

“There are only boundaries of thought, perception, and social agreement—artificial, mental-model boundaries”

“Where to draw a boundary around a system depends on the purpose of the discussion.”



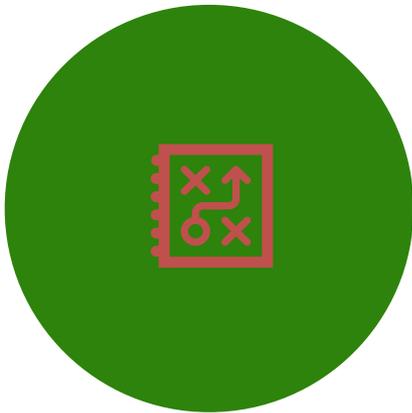


Bounded Rationality

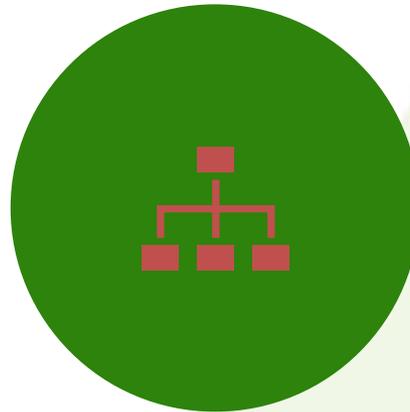
- Bounded rationality is the idea that an individual's rationality is limited in decisions by:
 - the tractability of the decision problem
 - the cognitive limitations of the mind
 - the time available to make the decision
 - the perceived or actual limits of their view or knowledge (**boundaries**)
 - some combination of the above
- Decision-makers, in this view, act as satisfiers, seeking a satisfactory (**local**) solution rather than an optimal (systemic) one.

Source: Simon, Herbert; *Models of Man*

3 fundamental enterprise processes drive this



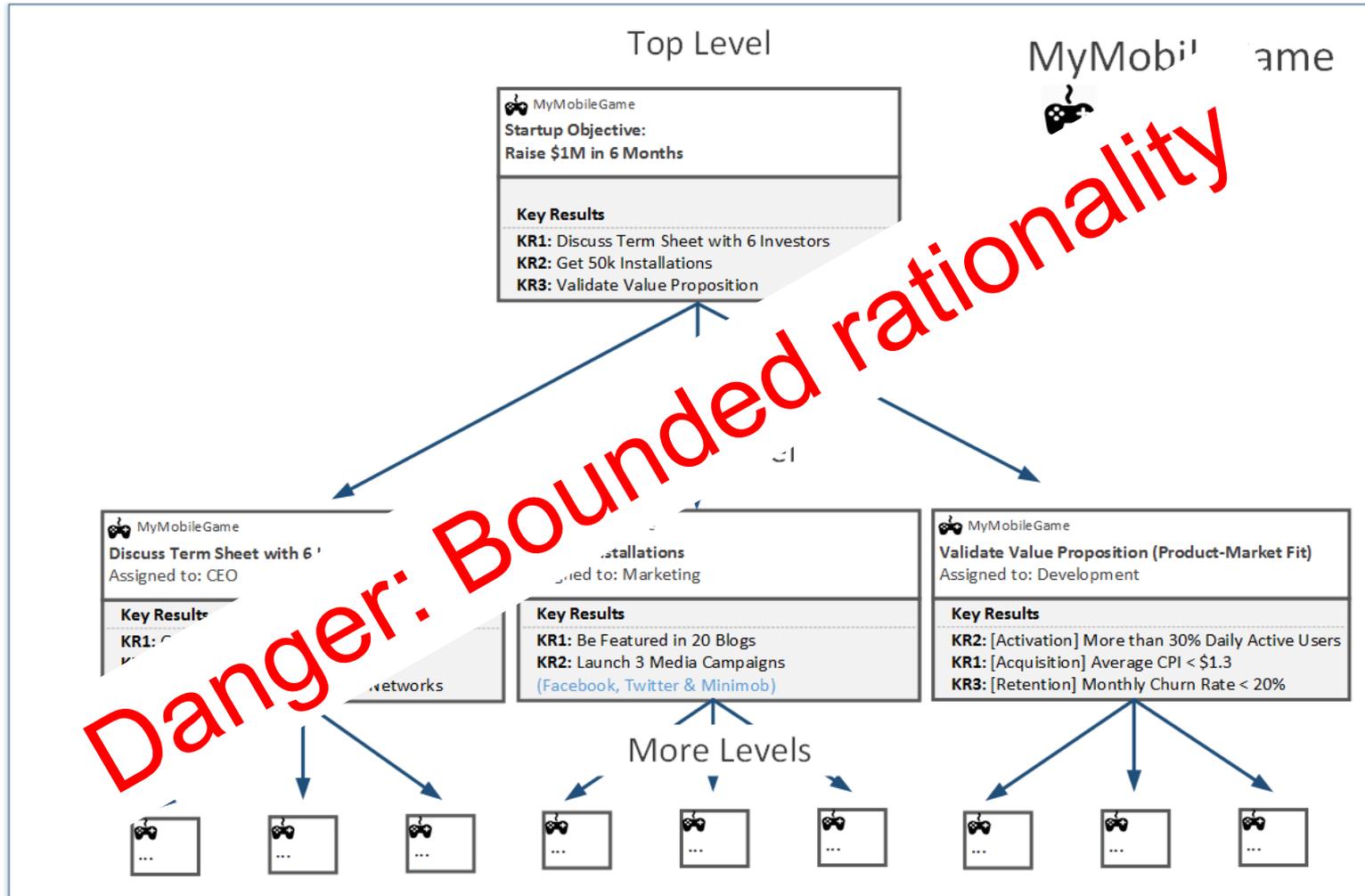
STRATEGY DEVELOPMENT
and DEPLOYMENT (OKRS)



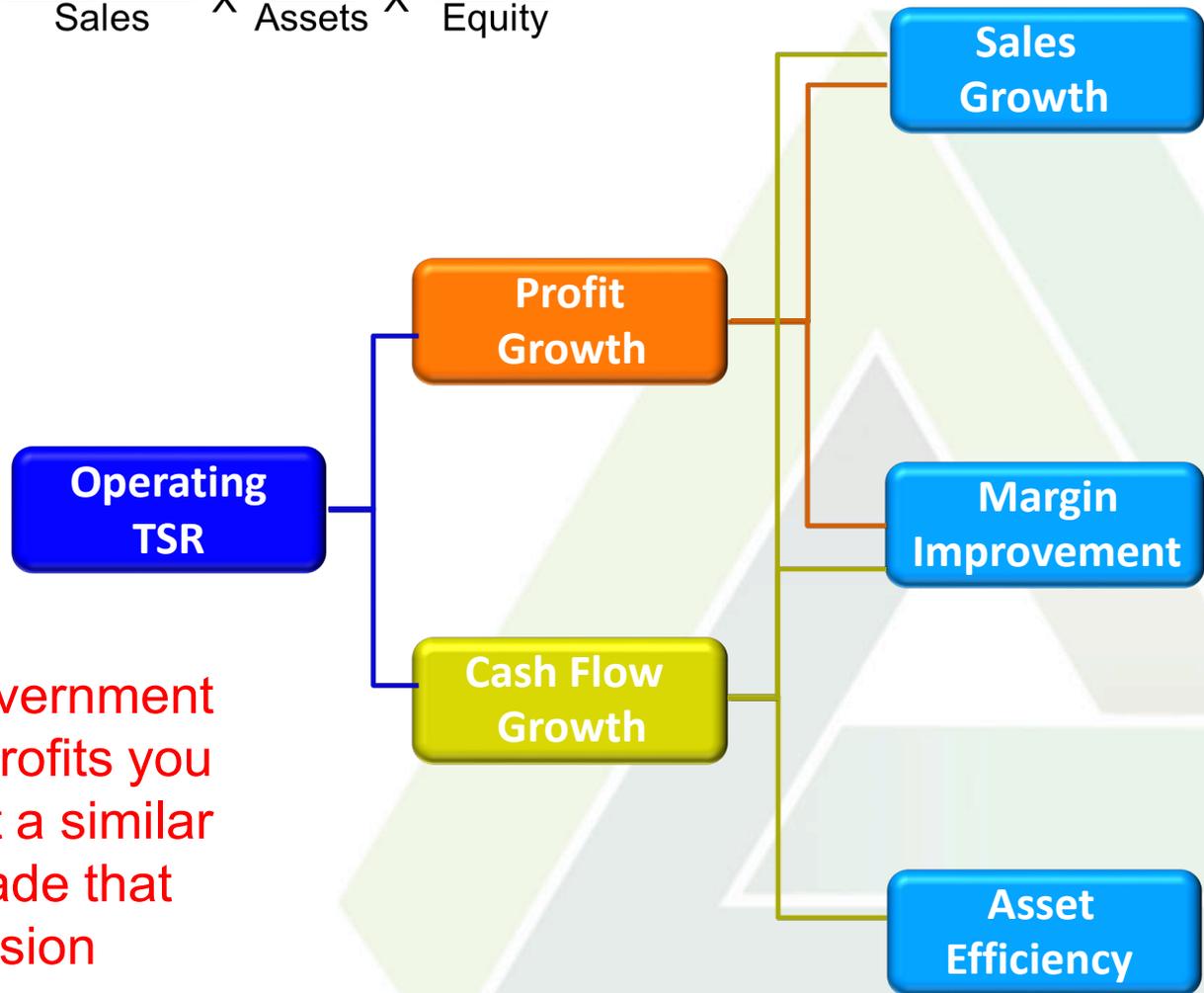
OPERATIONAL TOTAL
SHAREHOLDER RETURN
(OTSR)



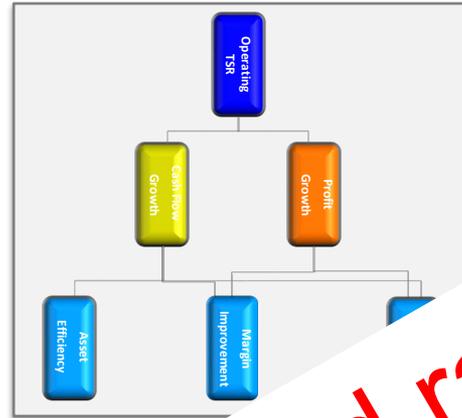
INCENTIVES
(\$\$)



$$\text{RoE} = \frac{\text{Net Income}}{\text{Equity}} = \frac{\text{Net Income}}{\text{Sales}} \times \frac{\text{Sales}}{\text{Assets}} \times \frac{\text{Assets}}{\text{Equity}}$$

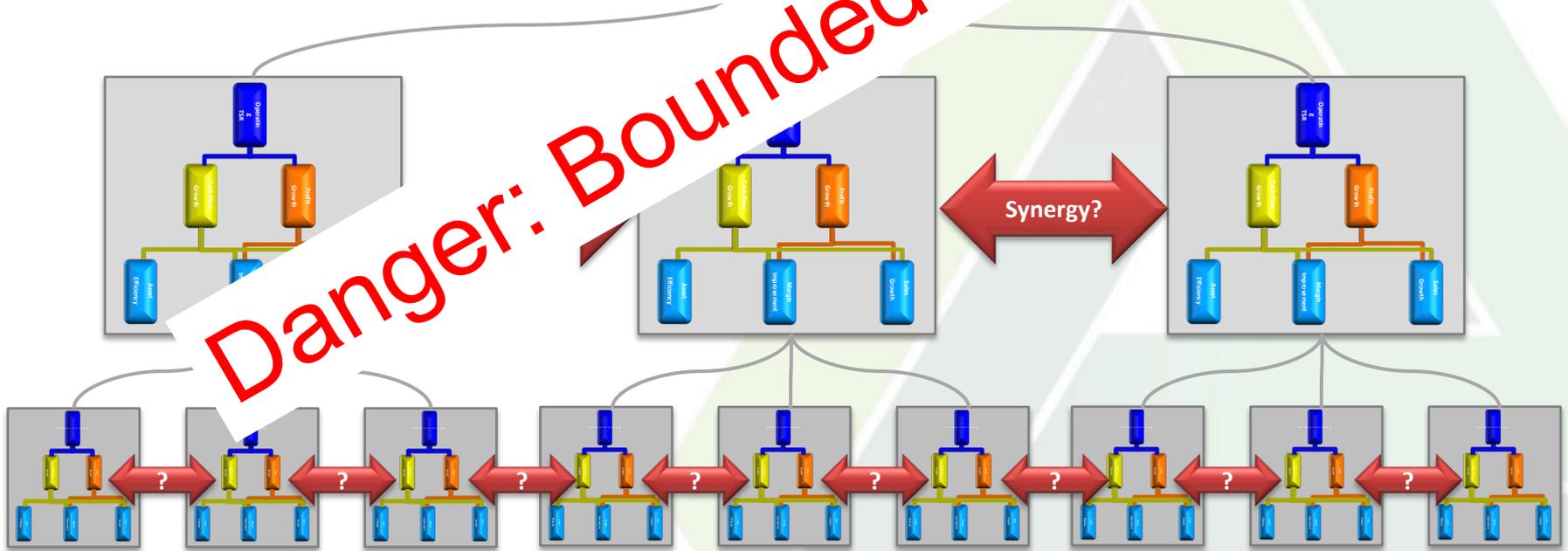


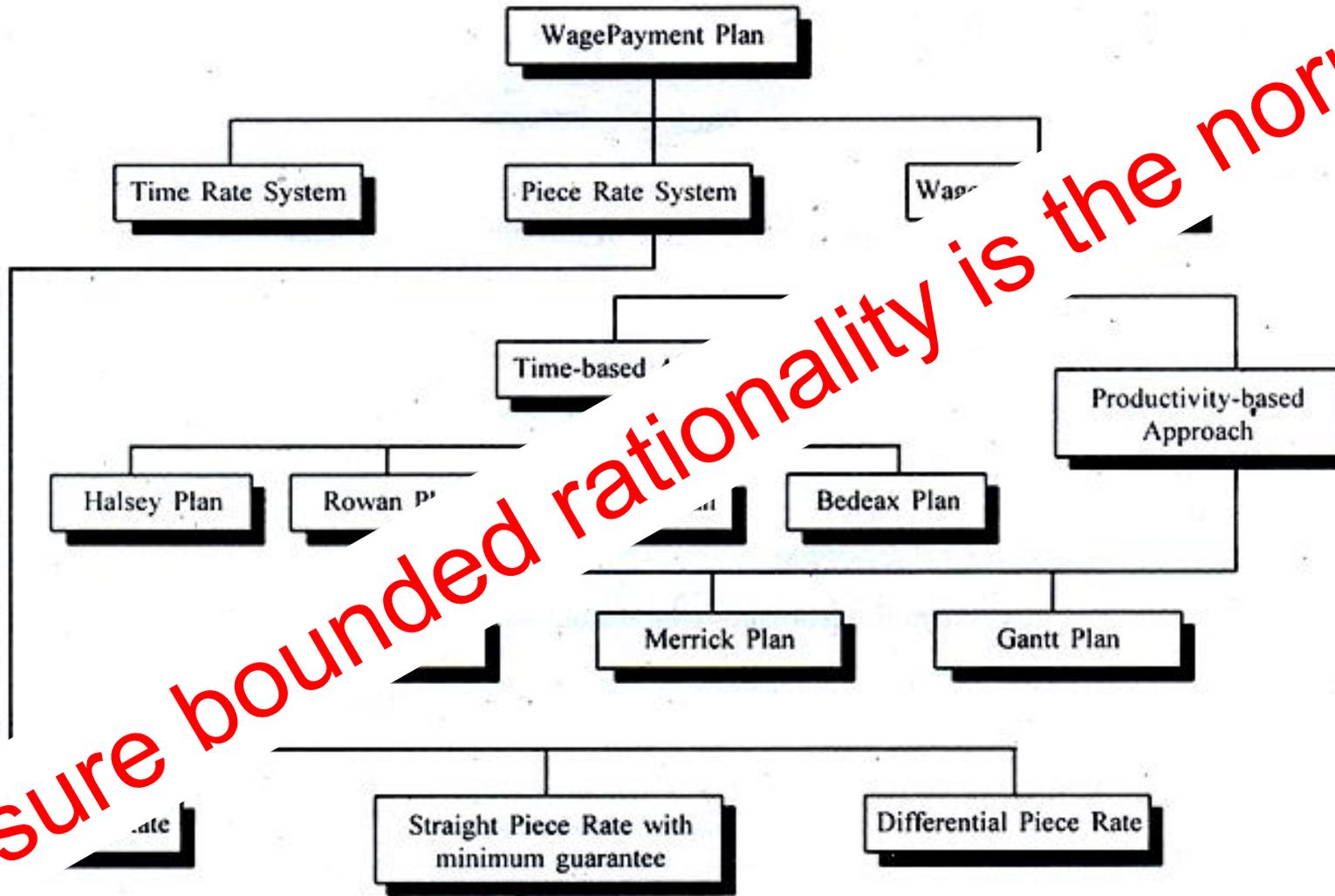
Note: For Government and Not-for-profits you can construct a similar metrics cascade that drives on mission success.



Mathematics
 Information
 Synergy

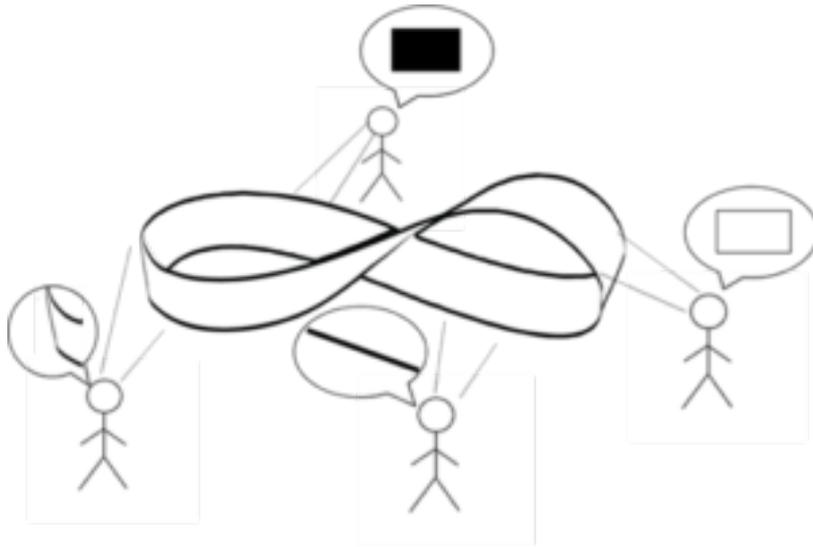
Danger: Bounded rationality





Assure bounded rationality is the norm

Source: <https://compensationmanagementkirimega.blogspot.com/>



Siloed Views – Bounded Rationality



Deming on Systems

- The *Appreciation of a system* involves understanding how interactions (i.e., feedback)
 - between the elements of a system can result in internal restrictions
 - that force the elements in the system to behave as a single organism that automatically seeks a steady state.
- It is this “steady state” that determines the output of the system rather than the individual elements.
 - Thus it is the structure of the organization (read systems) rather than the employees, alone, which holds the key to improving the quality of output.



“The way we/I have always done it”

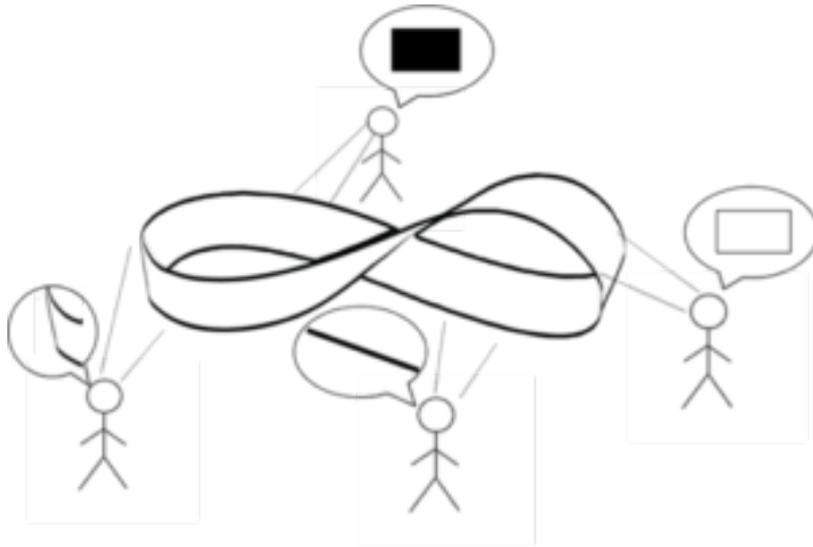
Major Government Contractor

7 C-Suite members – CEO, COO, CFO, CIO, CDO, CMO, VP HR

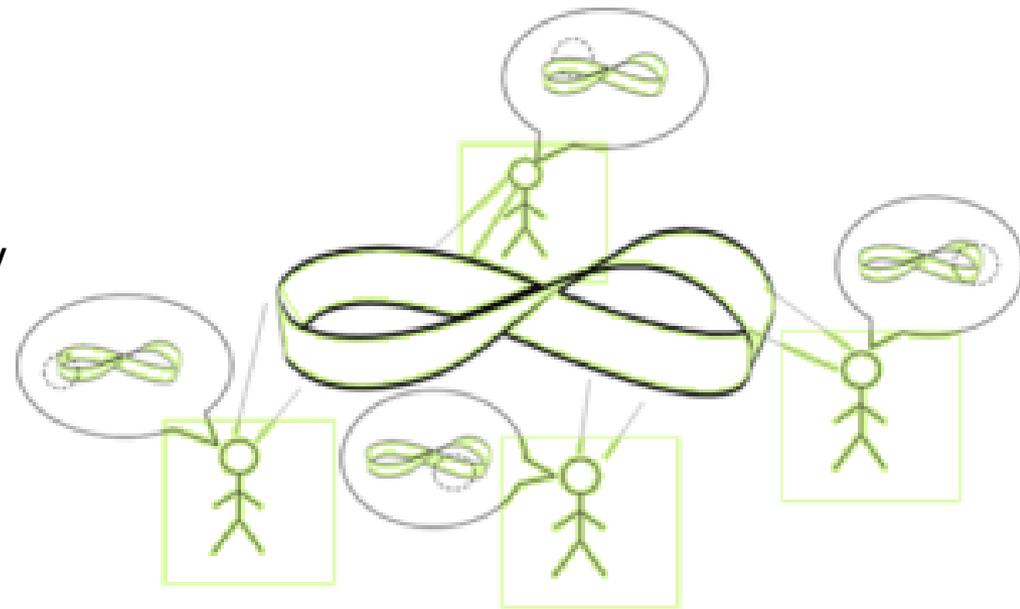
7 different **mental models** of program/project management

Employees in different divisions getting promoted/demoted for adhering to different versions

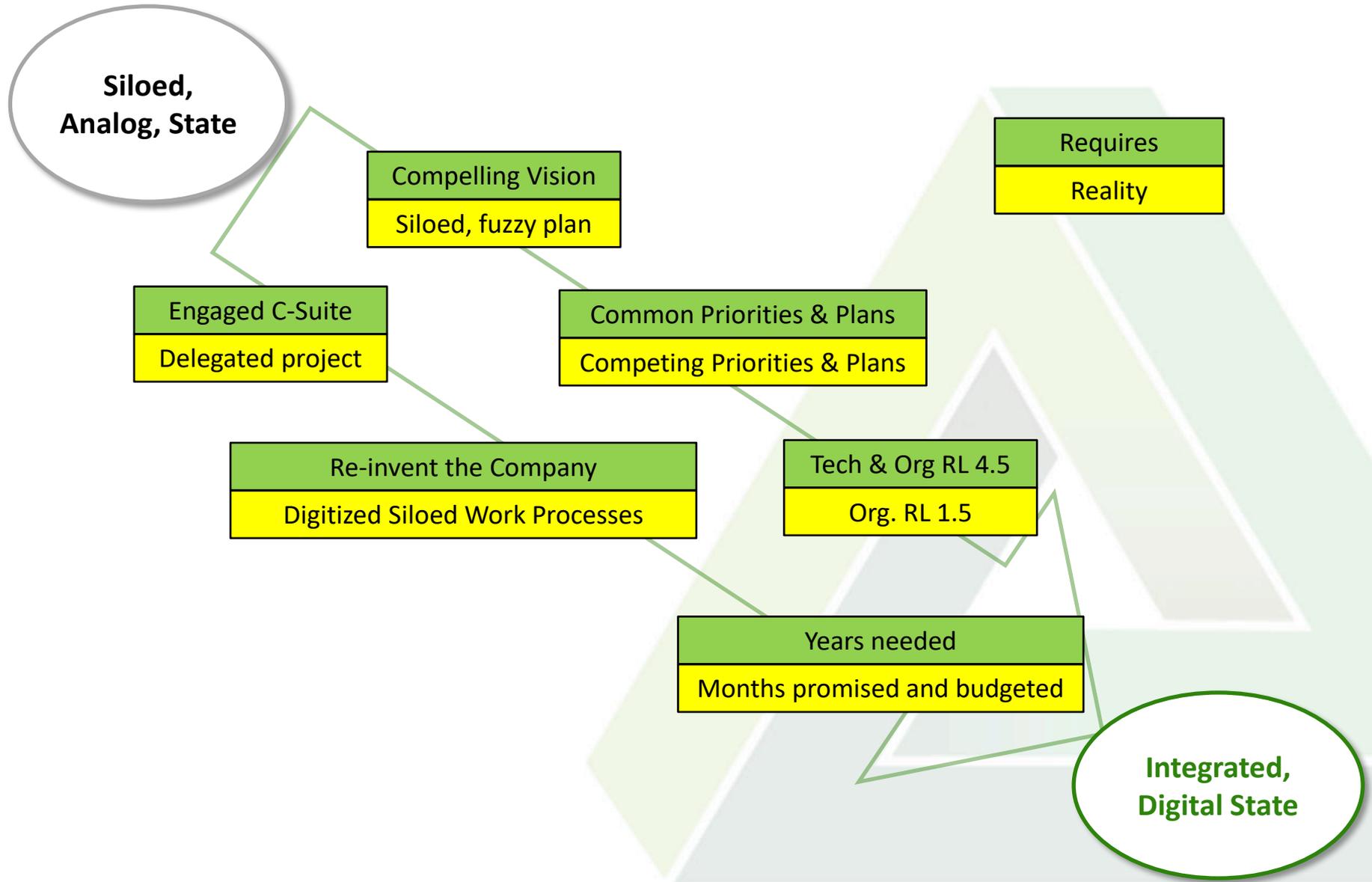
Systematic vs. Systemic



Siloed Views – Bounded Rationality



Shared System View – Common Mental Models





Three Keys (and challenges)

1. Must get C-Suite to think in systems

- Very rare!
- Must use their language and their lenses!

2. Must have C-Suite support and engagement

- Support is usually lip-service and engagement is rare.
- Make DT strategic!

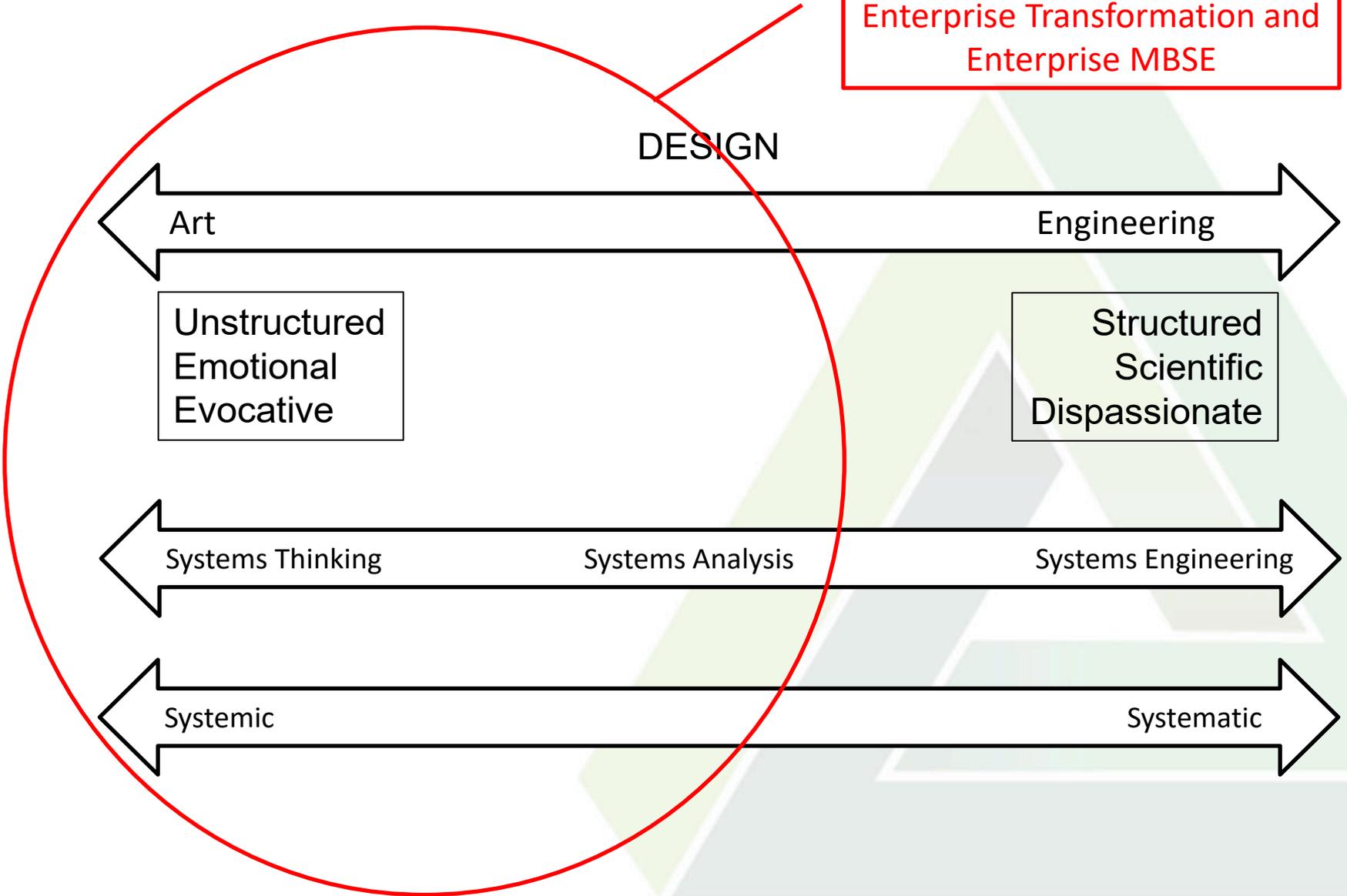
3. Must have compelling reasons for transformation - Strategic, ROI, preferably both

- Rare, usually aspirational happy talk and effort is viewed as an expense (a corporate tax at the division/local level), and therefore, resisted.

1. Demonstrate how DT will improve customer/user/beneficiary journey (more, faster, cheaper)
 - Better engagement, shorter sales cycle, faster time to decision, greater “stickiness”, better P-win %, product/service bundling opportunities, enhance follow-on opportunities
2. Demonstrate how DT will enhance/enable growth
 - Faster M&A integration, better growth and development (the learning organization), faster time to market/response
3. Demonstrate how DT will increase differentiation
4. Demonstrate how DT will reduce costs and drive efficiencies

In short, demonstrate how DT is strategic!

Enterprise Transformation and
Enterprise MBSE



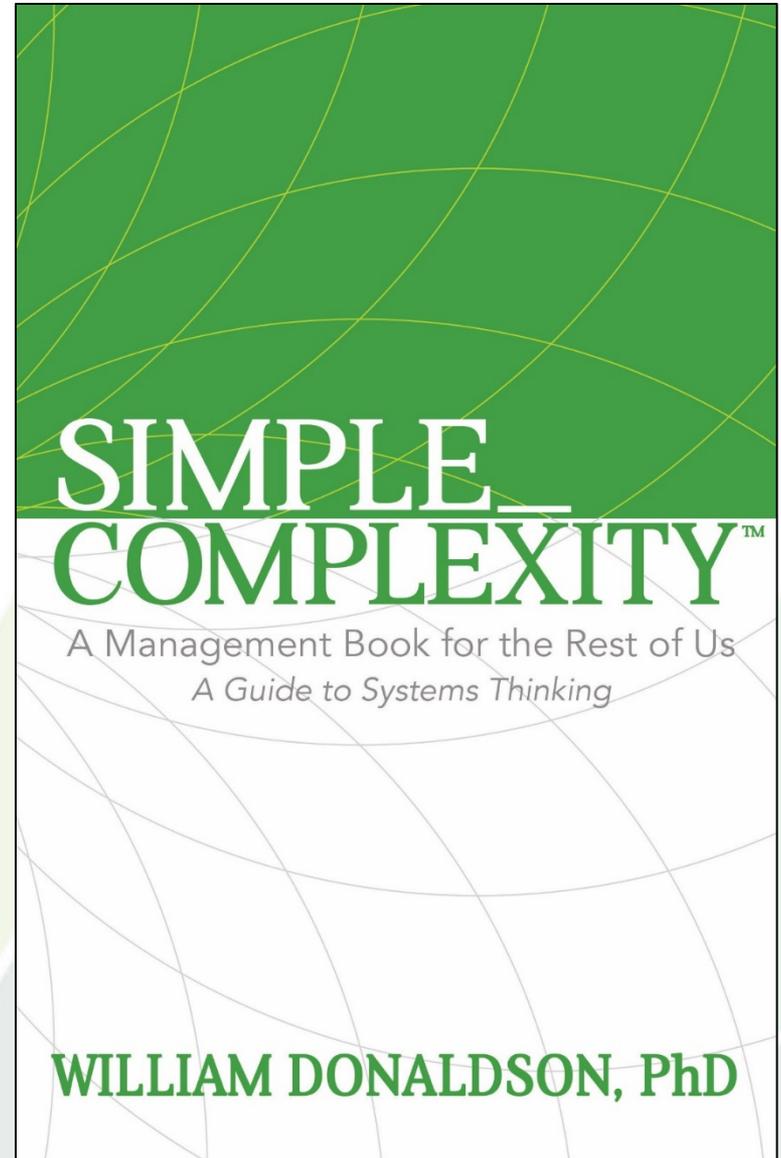
Available



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Questions?





UPCOMING TALKS:

“Digital Transformation” Series



Series Moderator: Dr. Dan DeLaurentis, Purdue

Tentative Dates:

Wednesday, April 7, 2021

Wednesday, June 2, 2021

CONTACT

Webinar Coordinator: Ms. Mimi Marcus, Stevens Institute of Technology – mmarcus@stevens.edu

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