Lean & Agile

Organizational Change

Innovative Models to Successfully Implement Process Improvement

Dr. David F. Rico, Pmp, Csep, Fcp, Fct, Acp, Csm, Safe, Devops

Twitter: @dr_david_f_rico
Website: http://www.davidfrico.com
LinkedIn: http://www.linkedin.com/in/davidfrico

Agile Capabilities: http://davidfrico.com/rico-capability-agile.pdf
Agile Cost of Quality: http://www.davidfrico.com/agile-vs-trad-coq.pdf
DevOps Return on Investment (ROI): http://davidfrico.com/rico-devops-roi.pdf
Dave's NEW Leadership Video: http://www.youtube.com/watch?v=70LRzOk9VGY
Dave's NEW Business Agility Video: http://www.youtube.com/watch?v=hTvtsAkL8xU
Dave's NEWER Scaled Agile Framework SAFe 4.5 Video: http://youtu.be/1TAuCRq5a34
Dave's NEWEST Development Operations Security Video: http://youtu.be/X22kJAvx44A
DoD Fighter Jets versus Amazon Web Services: http://davidfrico.com/dod-agile-principles.pdf

AUTHOR Background

- Gov't contractor with 35+ years of IT experience
- B.S. Comp. Sci., M.S. Soft. Eng., & D.M. Info. Sys.
- ☞ Large gov't projects in U.S., Far/Mid-East, & Europe
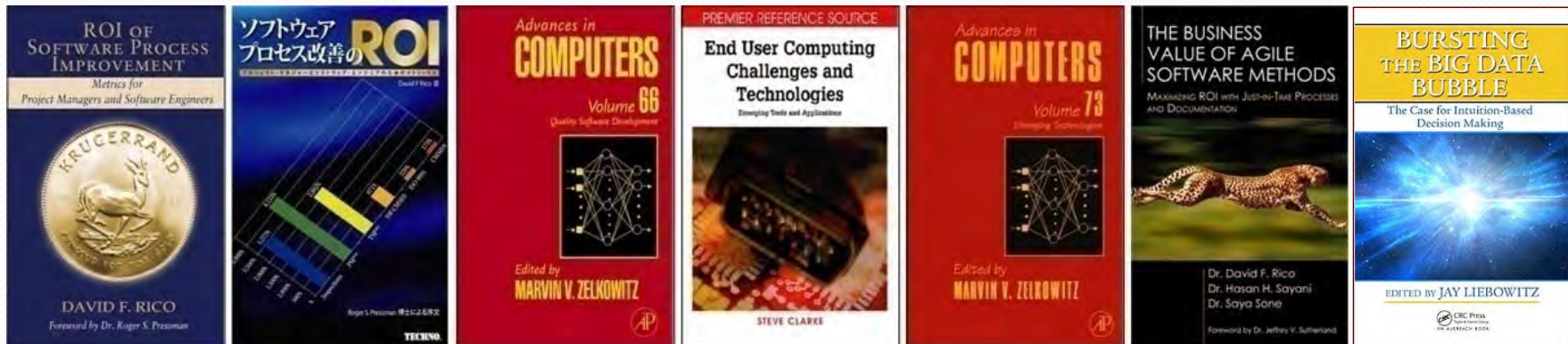
→ *Career systems & software engineering methodologist*
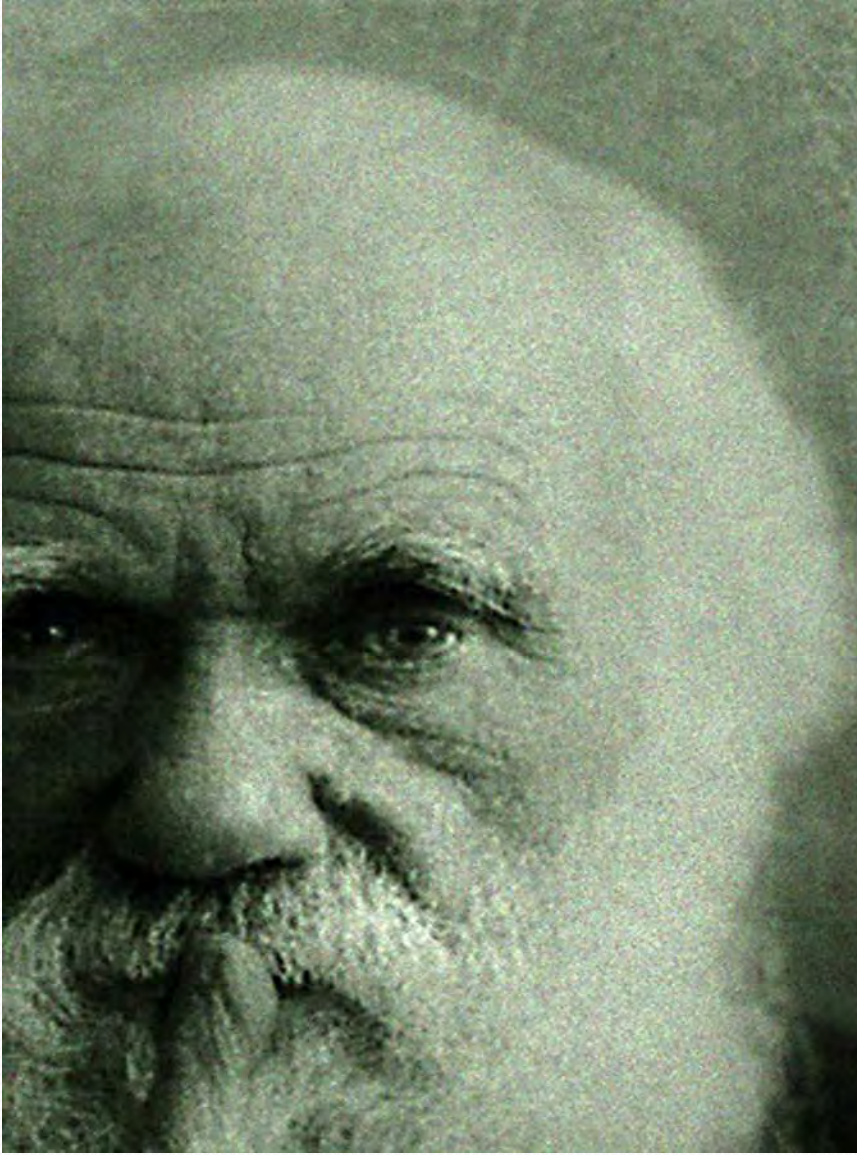→ *Lean-Agile, Six Sigma, CMMI, ISO 9001, DoD 5000*
→ *NASA, USAF, Navy, Army, DISA, & DARPA projects*
→ *Published seven books & numerous journal articles*
→ *Intn'l keynote speaker, 207+ talks to 19,900 people*
→ *Specializes in metrics, models, & cost engineering*
→ *Cloud Computing, SOA, Web Services, FOSS, etc.*
→ *Professor at 7 Washington, DC-area universities*

Org. Change — CHARLES DARWIN

"It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to *change*."

~Charles Darwin, 1809

Org. Change — CHALLENGES
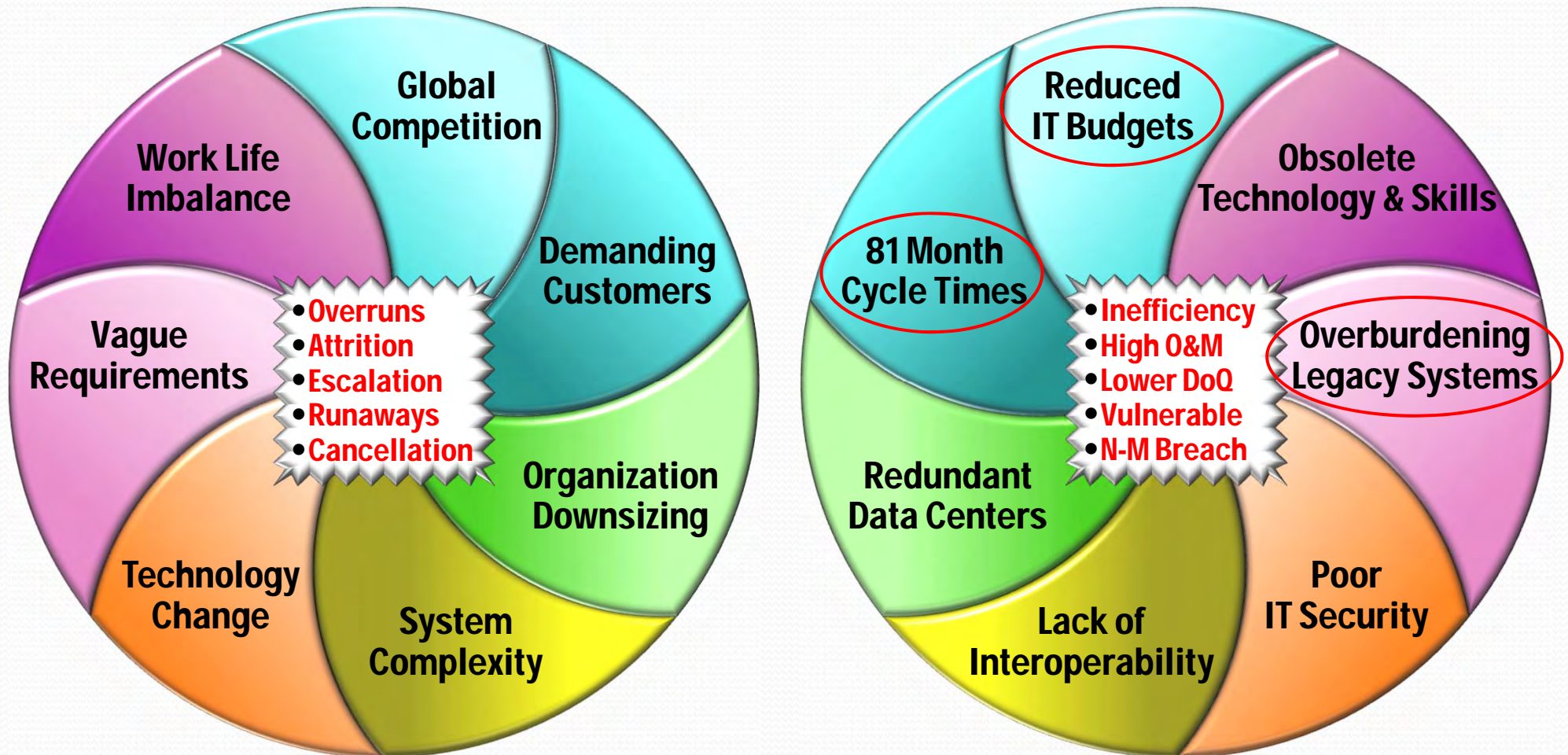
Pine, B. J. (1993). *Mass customization*: *The new frontier in business competition*. Boston, MA: Harvard Business School Press.
Pontius, R. W. (2012). Acquisition of IT: Improving efficiency and effectiveness in IT acquisition in the DoD. *Second Annual AFEI/NDIA Conference on Agile in DoD, Springfield, VA, USA*.

Org. Change — MARKET CHALLENGES

- Most of world's population connected to Internet
- Systems must support billions of simultaneous users
- ☞ New approaches are needed to scale to global market

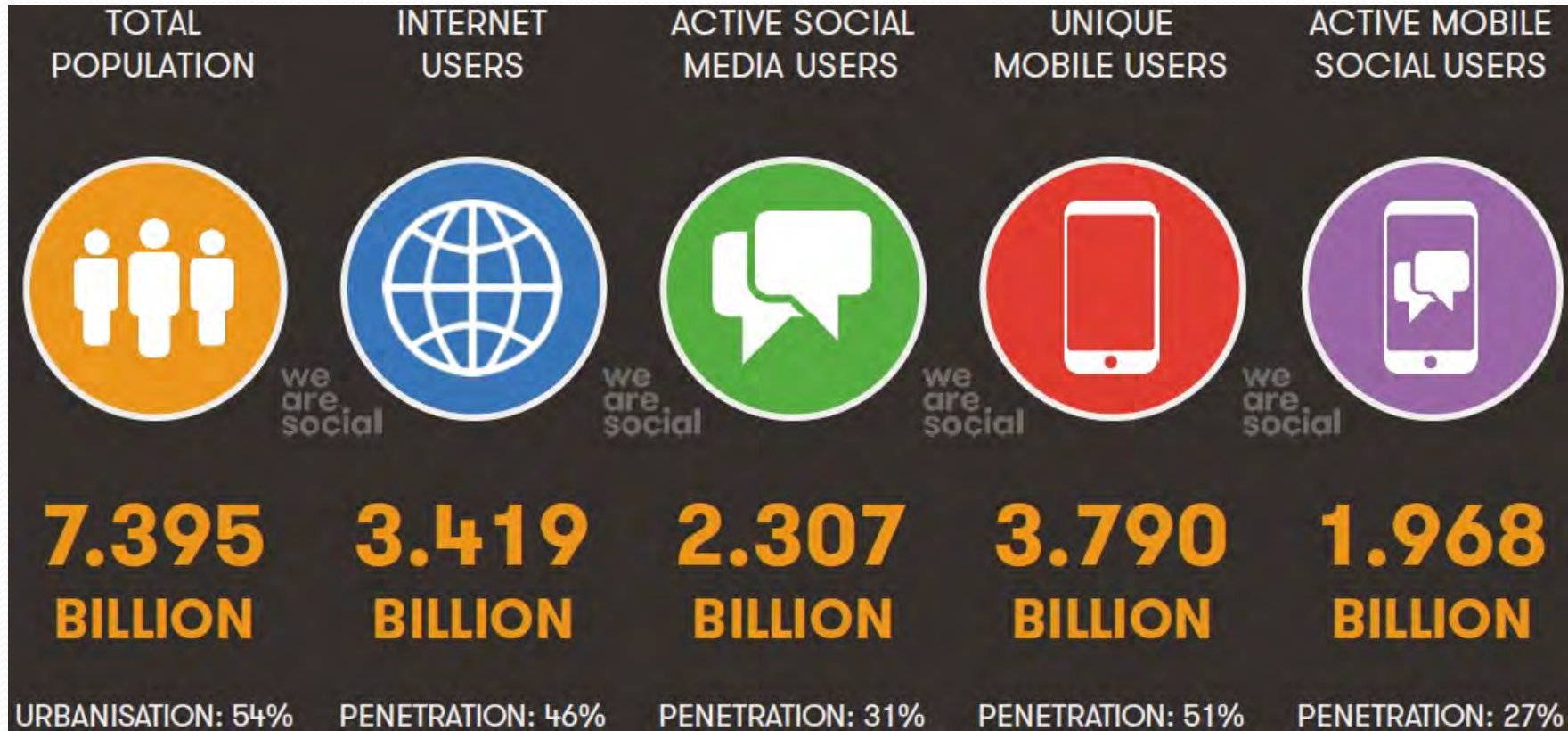| TOTAL POPULATION	INTERNET USERS	ACTIVE SOCIAL MEDIA USERS	UNIQUE MOBILE USERS	ACTIVE MOBILE SOCIAL USERS
7.395 BILLION	3.419 BILLION	2.307 BILLION	3.790 BILLION	1.968 BILLION
URBANISATION: 54%	PENETRATION: 46%	PENETRATION: 31%	PENETRATION: 51%	PENETRATION: 27%

Kemp, S. (2016). *Digital in 2016: We are social's compendium of global digital, social, and mobile data, trends, and statistics*. New York, NY: We Are Social, Inc.

Org. Change — GLOBAL CHALLENGES
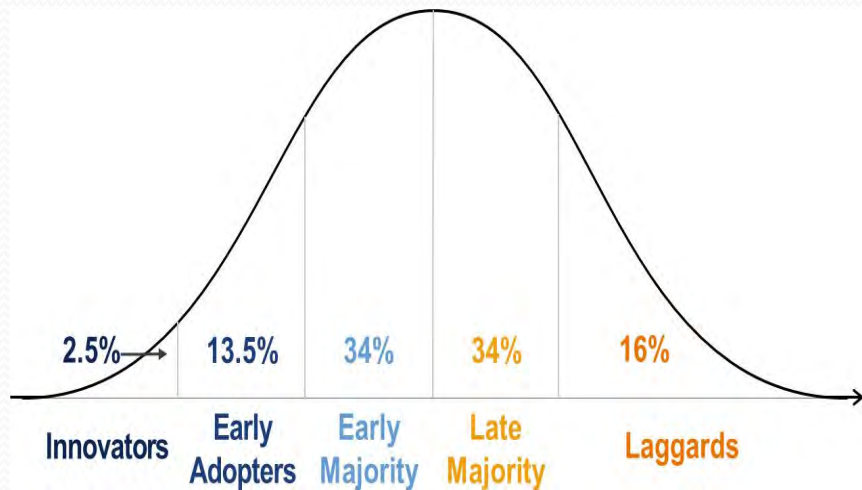

IoT is an Extinction Level Event

- 25-50B Devices on IOT
- 5-10B Internet Hosts
- 4-8B Mobile Phones
- 2-3B End User Sys
- Mass Business Failure

Org. Change — ADOPTION CURVES

ROGERS MODEL

2.5% → Innovators | 13.5% Early Adopters | 34% Early Majority | 34% Late Majority | 16% Laggards

MOORE MODEL

Chasm

2.5% Innovators | Early Adopters 13.5% | Early Majority 34% | Late Majority 34% | Laggards 16%

KUBLER-ROSS MODEL

Denial
Disbelief; looking for evidence that it isn't true

Integration
Changes integrated; a renewed individual

Shock
Surprise or shock at the event

Frustration
Recognition that things are different; sometimes angry

Decision
Learning how to work in the new situation; feeling more positive

Experiment
Initial engagement with the new situation

Depression
Low mood; lacking in energy

Morale and competence

SATIR MODEL

Performance

Foreign Element

Late Status Quo

Practice and Integration

New skills

Setbacks

learning, practicing and making mistakes

Chaos
pain, stress, fears, creativity

New Status Quo

Time

Org. Change — NEWTON'S 3RD LAW
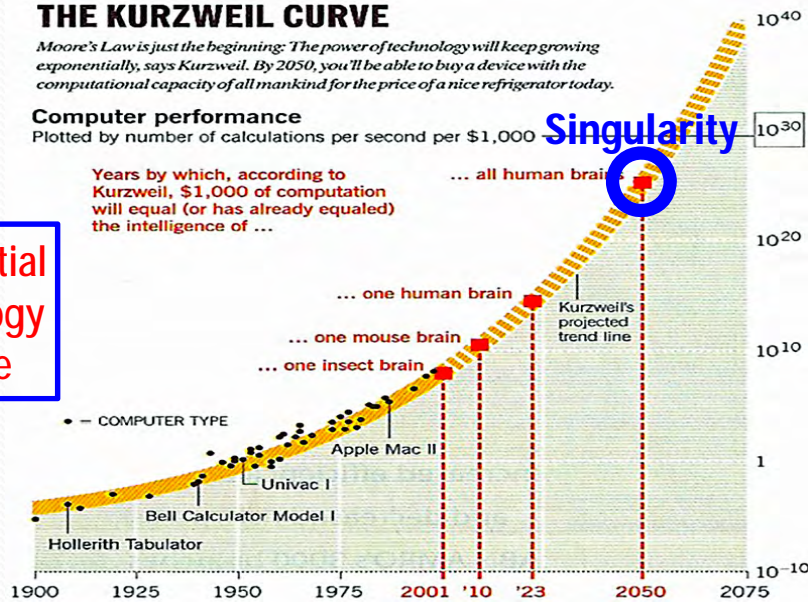

THE KURZWEIL CURVE

Moore's Law is just the beginning: The power of technology will keep growing exponentially, says Kurzweil. By 2050, you'll be able to buy a device with the computational capacity of all mankind for the price of a nice refrigerator today.

Computer performance
Plotted by number of calculations per second per $1,000

Singularity

Years by which, according to Kurzweil, $1,000 of computation will equal (or has already equaled) the intelligence of …

… all human brain

… one human brain

… one mouse brain

… one insect brain

Kurzweil's projected trend line

— COMPUTER TYPE

Apple Mac II
Univac I
Bell Calculator Model I
Hollerith Tabulator

Exponential Technology Change

THE SATIR CURVE

Resistance   Chaos
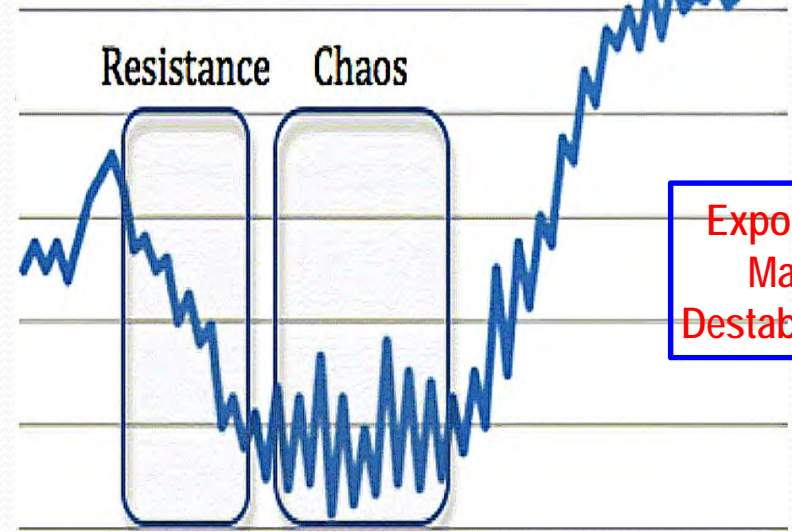
Exponential Market Destabilization

Exponential Business Failures (1990s)

Percent Still Alive

71%

Exponential Business Failures (2000s)

Share of businesses to survive

56%
SERVICES

71%
MANUFACTURING

8
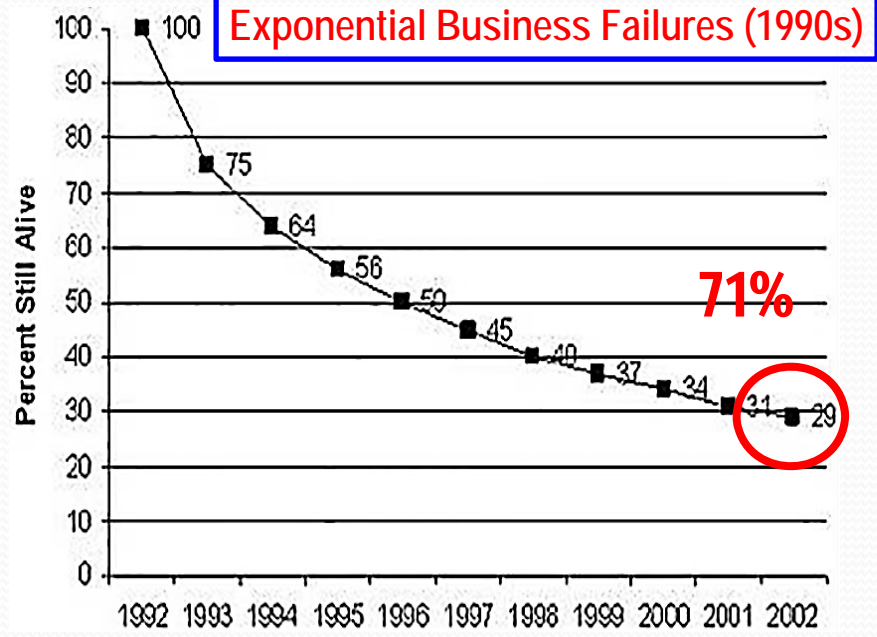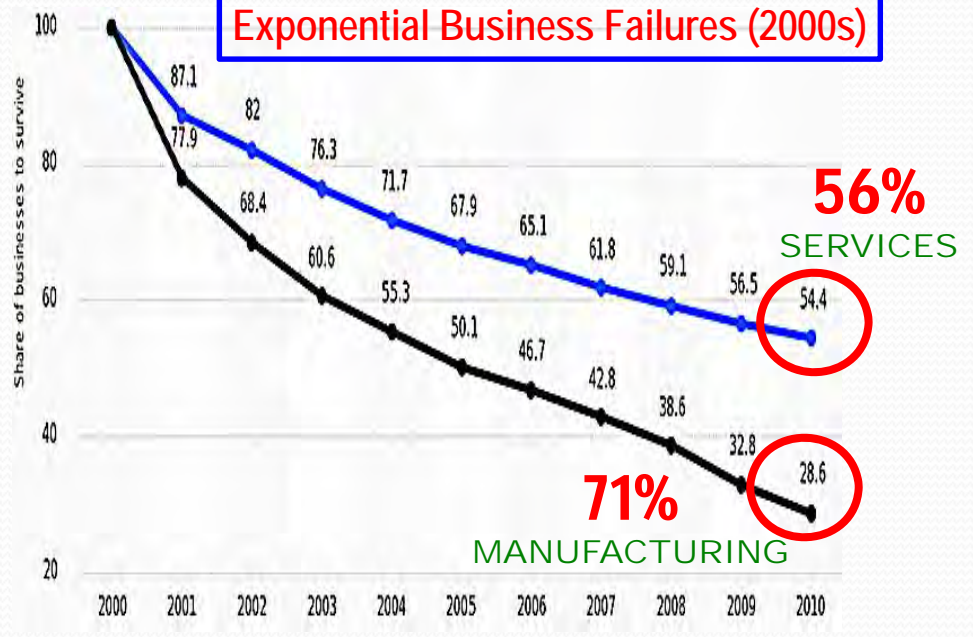
ORGANIZATIONAL CHANGE Studies

- Change Failures. In 2002, Dr. Martin Smith analyzed 50 major studies involving 43,000 respondents to determine the average success rates of organizational change initiatives (Smith, 2002). He identified 10 major types and kinds of change initiatives ranging from 19% (culture change) to 58% (strategy). Reorganizations were reported to be successful to some degree 46% of the time (but the degree of success was not quantified). His goal was to substantiate claims by leading change consultants that 70% of change initiatives fail on average. **He reported an average change failure rate of 67%**.

- Reorganization Effects. In 2012, Bryan Klopack and John Powers of the Government Business Council and Deloitte analyzed the effects of public sector reorganizations by interviewing 244 civilian leaders (Klopack & Powers, 2012). 92% reorganized once per year and 45% had reorganized four times. 76% suffered from poor communications, 56% from inattentiveness, 49% from lack of skills, and 46% from confusion. 51% were currently reorganizing due to downsizing. **Outcomes included 74% lower morale, 65% mission distraction, 51% greater retirement, and 48% higher turnover**.

- Change Success. In 2008, Scott Keller and Carolyn Aiken of McKinsey compared conventional and unconventional change management techniques on performance outcomes (Keller & Aiken, 2008). Change initiatives were more successful if employees and workers were allowed to select and manage the changes, leaders deployed a portfolio of top-down and bottom-up change initiatives, intangible and tangible rewards were used, social justice and fairness existed, etc. **Change success as measured by profitability doubled from 7% to 15% when unconventional thinking was applied, such as employee selected and led change initiatives**.

- Global Results. In 2009, Right Management performed a survey of change management among of 28,810 employees in 10 industry sectors from 15 countries (Haid et al., 2009). Employees who were engaged in changes reported 50% better productivity, 33% more profitability, 29% higher revenues, 56% more customer loyalty, and 44% higher retention rates. However, an 66% of global employees said they were not engaged in their change initiatives. **When leaders prepared and empowered employees to change, initiatives were two times more successful**.

Smith, M. E. (2002). Success rates for different types of organizational change. *Performance Improvement, 41*(1), 26-33.
Klopack, B. & Powers, J. (2012). *Tidying up*: *What reorganization can do for federal agencies*. Washington, DC: Government Executive Media Group.
Keller, S. & Aiken, C. (2008). *The inconvenient truth about change management*: *Why it isn't working and what to do about it*. New York, NY: McKinsey & Co.
Haid et al. (2009). *Ready, get set, change*: *The impact of change on workforce productivity and engagement*. Philadelphia, PA: Right Management.

What is AGILITY?

- **A-gil-i-ty** (ə-'ji-lə-tē) Property consisting of quickness, lightness, and ease of movement; To be very nimble
  - *The ability to create and* respond to change *in order to profit in a turbulent global business environment*
  - *The ability to* quickly reprioritize *use of resources when requirements, technology, and knowledge shift*
  - *A very* fast response *to sudden market changes and emerging threats by intensive* customer interaction
  - *Use of* evolutionary, incremental, *and* iterative *delivery to converge on an optimal customer solution*
  - *Maximizing* **BUSINESS VALUE** *with right sized, just-enough, and just-in-time processes and documentation*

Highsmith, J. A. (2002). *Agile software development ecosystems*. Boston, MA: Addison-Wesley.

What are AGILE VALUES?

- People-centric way to create innovative solutions
- Product-centric alternative to documents/process
- ☞ Market-centric model to maximize business value

CUSTOMER COLLABORATION **VS CONTRACT NEGOTIATION**	**INDIVIDUALS & INTERACTIONS** **VS PROCESSES AND TOOLS**
WORKING PRODUCTS **VS COMPREHENSIVE DOCUMENTATION**	**RESPONDING TO CHANGE** **VS FOLLOWING A PLAN**

Agile Manifesto. (2001). *Manifesto for agile software development*. Retrieved September 3, 2008, from http://www.agilemanifesto.org

Examples of AGILE BEHAVIORS?

□ Early models based on strategies & operations
□ Evolved into an experimental sense & response
☞ □ Products, organization, & facilities important too

1. STRATEGIC AGILITY	2. CULTURAL AGILITY	3. PROCESS AGILITY
Experimental Sense & Respond	Collaborative & Empowered	Lean, Agile, & Continuous

4. PRODUCT & SERVICE AGILITY		5. TECHNOLOGY AGILITY
Fewer, Smaller, & Inexpensive	BUSINESS AGILITY	Software-Based Microservices

6. IT INFRASTRUCTURE AGILITY	7. ORGANIZATION DESIGN AGILITY	8. CAPITAL INFRASTRUCTURE AGILITY
Public Internet Services Based	Flat, Networked, & Holocratic	On-Demand Teleworkers

Rico, D. F. (2016). *Agile businesses*: *A metamodel of lean and agile organizational strategies*. Retrieved March 1, 2016, from http://davidfrico.com

What is LEAN?

- **Lean** (lēn): Property consisting of being thinness, slimness, and skinniness; To be extremely slender

  - *A customer-driven product development process that delivers the maximum amount of business value*

  - *An economical way of planning and managing the development of complex new products and services*

  - *A product development process that is free of excess waste, capacity, and non-value adding activities*

  - Just-enough, *just-in-time, and right-sized product development* processes, documentation, *and* tools

  - *A product development approach that is* **ADAPTABLE TO CHANGE** *in customer needs and market conditions*

Womack, J. P., & Jones, D. T. (1996). *Lean thinking*: *Banish waste and create wealth in your corporation*. New York, NY: Free Press.

What are LEAN VALUES?

- Time-centric way to compete on speed & time
- Customer-centric model to optimize cost & quality
☞ - Pull-centric alternative to wasteful mass production

Value

| Respect for People & Culture | Flow | Innovation | Relentless Improvement |

Leadership

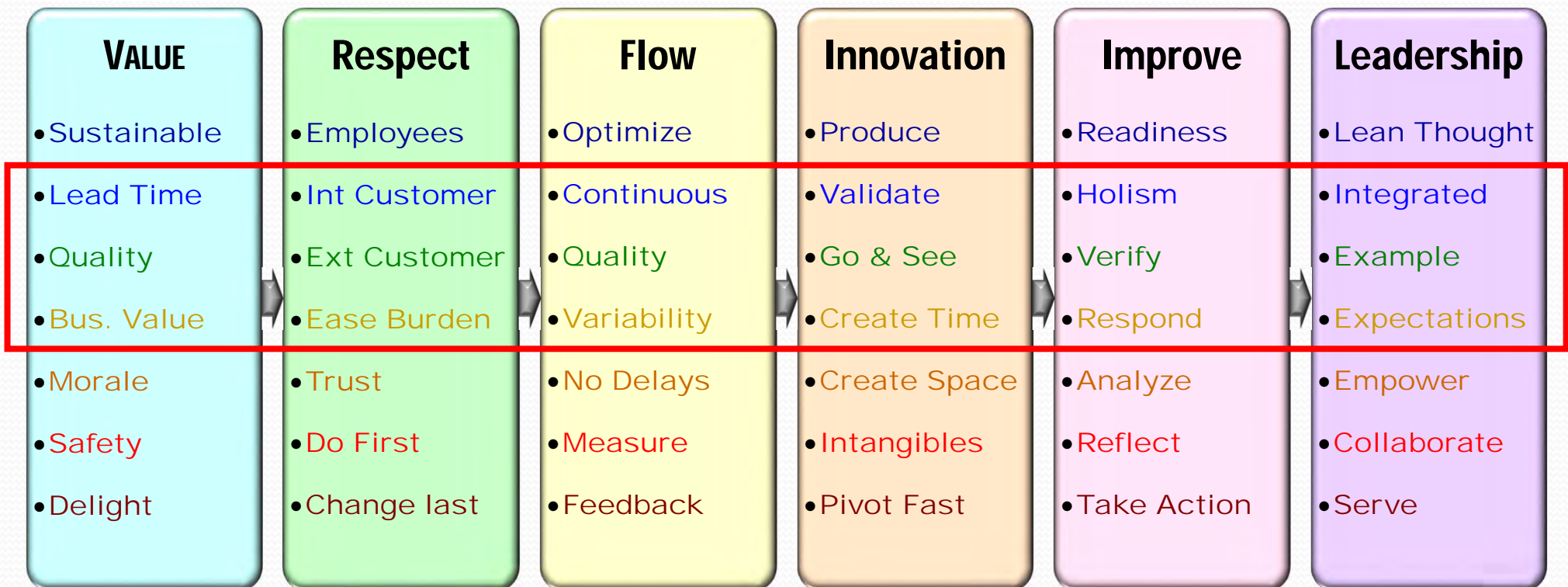Leffingwell, D. (2017). *The SAFe house of lean*. Retrieved February 19, 2018, from http://www.scaledagileframework.com
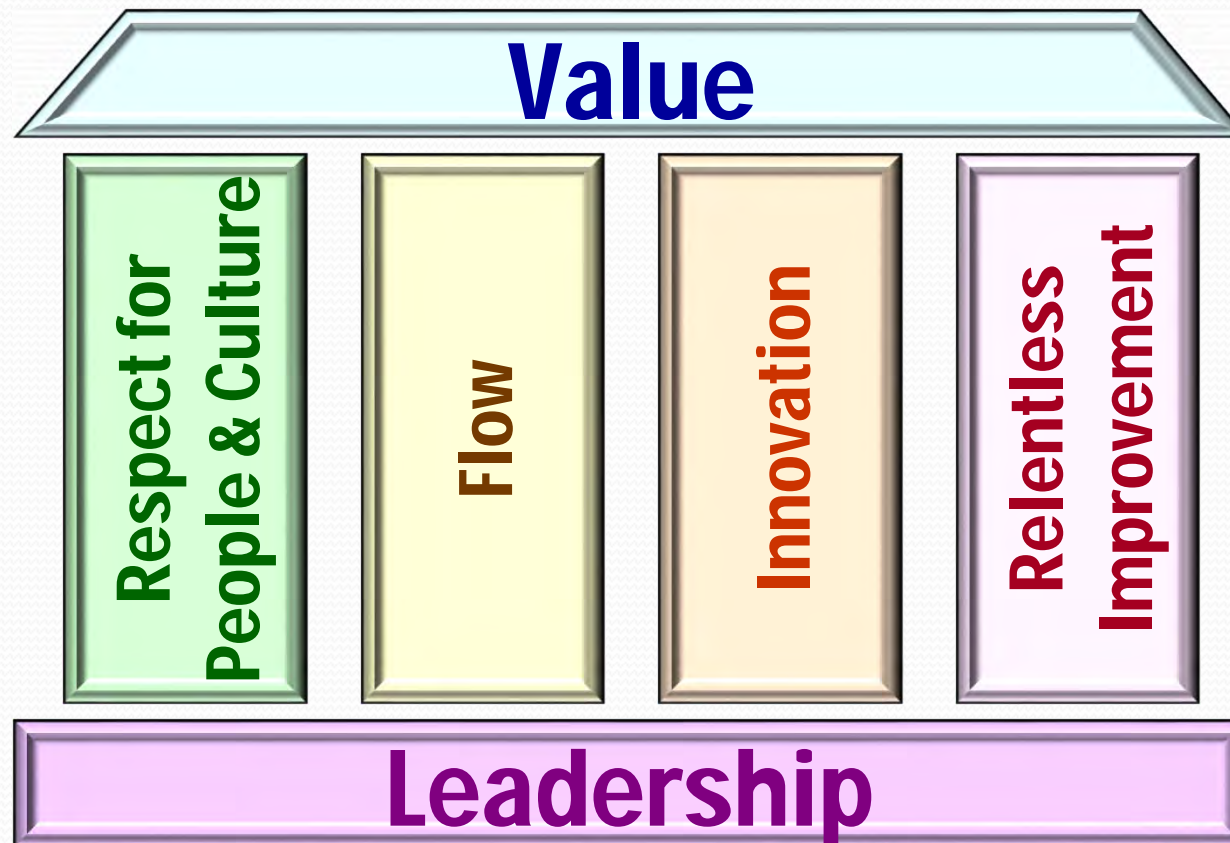
Examples of LEAN BEHAVIORS?

- ☐ Numerous models of lean organizational behaviors
- ☐ Many of them stem from Womack's 5 Lean principles
- ☞☐ Include value, people, flow, value, & esp. LEADERSHIP

VALUE	Respect	Flow	Innovation	Improve	Leadership
•Sustainable	•Employees	•Optimize	•Produce	•Readiness	•Lean Thought
•Lead Time	•Int Customer	•Continuous	•Validate	•Holism	•Integrated
•Quality	•Ext Customer	•Quality	•Go & See	•Verify	•Example
•Bus. Value	•Ease Burden	•Variability	•Create Time	•Respond	•Expectations
•Morale	•Trust	•No Delays	•Create Space	•Analyze	•Empower
•Safety	•Do First	•Measure	•Intangibles	•Reflect	•Collaborate
•Delight	•Change last	•Feedback	•Pivot Fast	•Take Action	•Serve

Leffingwell, D. (2017). *The SAFe house of lean*. Retrieved February 19, 2018, from http://www.scaledagileframework.com

Lean & Agile GOLDILOCKS Zone

- ☐ Traditional project management is scope-based
- ☐ Agile project management is primarily time-based
- ☞ ☐ Batchsize, capacity, & time key to market response

	WATERFALL	AGILE	LEAN
CONSTRAINTS	Scope	Time Cost	Batchsize
	RESOURCE PERFORMANCE	BUSINESS VALUE	MARKET RESPONSE
ESTIMATES	Cost Time	Scope	Capacity Time
	Scope Drives Resources	*Time Drives Scope*	*Batchsize Drives Lead/Cycle Time*
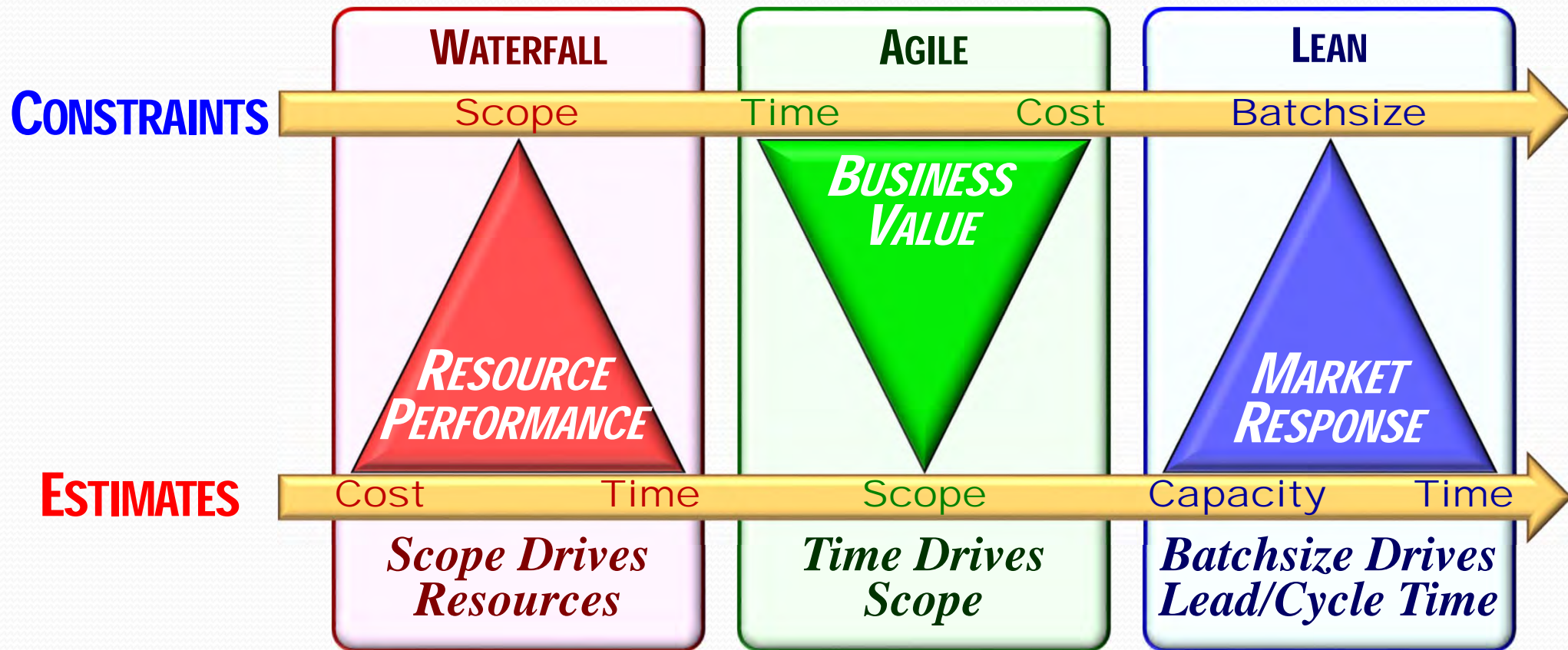
Rico, D. F. (2017). *Lean triangle: Triple constraints*. Retrieved December 17, 2017, from http://davidfrico.com/lean-triangle.pdf
Sylvester, T. (2013). *Waterfall, agile, and the triple constraint*. Retrieved December 16, 2017, from http://tom-sylvester.com/lean-agile/waterfall-agile-the-triple-constraint
Pound, E. S., Bell, J. H., Spearman, M. L. (2014). *Factory physics*: *How leaders improve performance in a post-lean six sigma world*. New York, NY: McGraw-Hill Education.

Agile WORLD VIEW

- □ "Agility" has many dimensions other than IT
- □ It ranges from leadership to technological agility
- ☞ □ Today's focus is on organizational & enterprise agility

Agile Leaders

Agile Organization Change

Agile Acquisition & Contracting

Agile Strategic Planning

Agile Capability Analysis

Agile Program Management

Agile Project Management

Agile Systems Development

Agile Processes & Practices

Agile Tools

Agile Information Systems

Agile Tech.
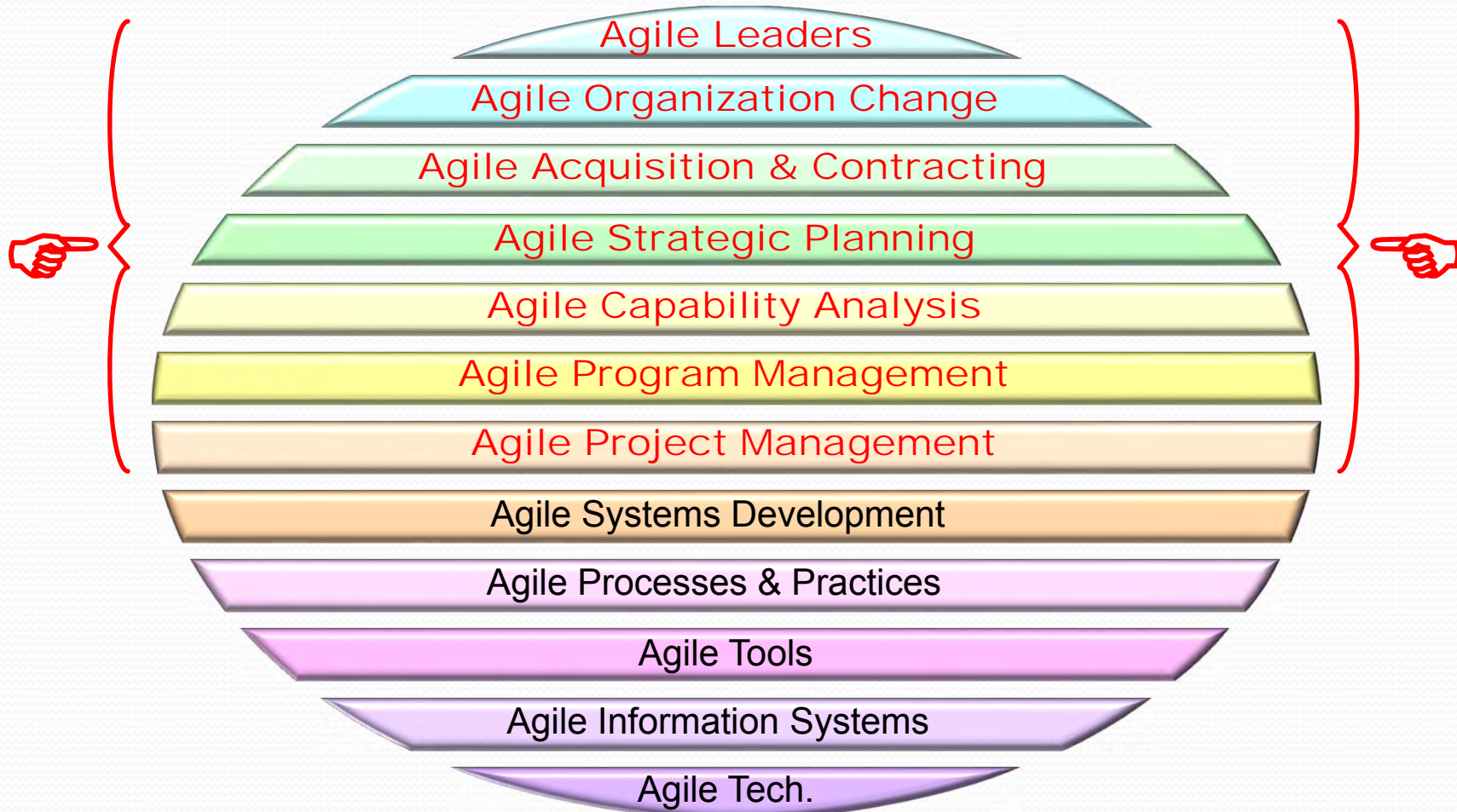
Models of LEAN & AGILE METHODS

- ☐ Numerous models of lean & agile methods
- ☐ Based on principles of flexible manufacturing
- ☞ ☐ Include team, project, & enterprise management

SCRUM - 1993 -	XP - 1998 -	KANBAN - 2010 -	APM - 2011 -	LEAN-ENTERPRISE - 2015 -
• Product Backlog	• Metaphor	• Visualize	• Vision	• Measure Risks
• Sprint Planning	• User Stories	• Limit WIP	• Roadmap	• Marketing
• Sprint Backlog	• Arch/Story Spike	• Manage Flow	• Release Plan	• Alignment
• 2-4 Week Sprint	• Release Plans	• Use Policies	• Sprint Plan	• Value
• Daily Scrum	• 2 Week Iteration	• Quality Focus	• 2-4 Week Sprint	• Experiments
• Sprint Review	• Test Driven Dev.	• Lead Times	• Daily Scrum	• Lean Design
• Shippable Prod.	• Continuous Int.	• Improvement	• Sprint Review	• Flow Principles
• Retrospective	• Small Releases	• Reduce Variation	• Retrospective	• Improvement

Schwaber, K., & Beedle, M. (2001). *Agile software development with scrum*. Upper Saddle River, NJ: Prentice-Hall.
Beck, K. (2000). *Extreme programming explained*: *Embrace change*. Reading, MA: Addison-Wesley.
Anderson, D. J. (2010). Kanban: Successful evolutionary change for your technology business. Sequim, WA: Blue Hole Press.
Layton, M. C., & Maurer, R. (2011). *Agile project management for dummies*. Hoboken, NJ: Wiley Publishing.
Humble, J., Molesky, J., & O'Reilly, B. (2015). *Lean enterprise*: *How high performance organizations innovate at scale*. Sebastopol, CA: O'Reilly Media.

What is ORGANIZATIONAL CHANGE?

☐ **Change** (chānj) To cause to be different, have a new form, and replace; To switch, change methods or sides

- *A framework for managing the effect of new business processes, changes in organizational structure or culture*

- *An enterprise going through a transformation, change, alteration, reorganization, restructuring, or turnaround*

- *Act of formally reviewing and modifying management strategies, tactics, structures, and business processes*

- *A process in which an organization changes its working methods or aims to deal with new situations or markets*

☞ - *Maximizing* **BUSINESS VALUE** *with deep organizational change in order to maintain a competitive advantage* ☞

http://searchcio.techtarget.com/definition/organizational-change-management-OCM
http://www.businessdictionary.com/definition/organization-change.html
http://smallbusiness.chron.com/meaning-organizational-change-35131.html
http://dictionary.cambridge.org/us/dictionary/english/organizational-change

ORGANIZATIONAL CHANGE Timeline

- 1939 Shewhart Shewhart Model 1 Specification, Production, Inspection
- 1947 Lewin 3-Step Model Unfreeze, Change, Refreeze
- 1950 Shewhart Shewhart Model 2 Design, Make, Market, Test
- 1951 Lewin Force Field Driving Forces, Present or Desired State, Restraining Forces
- 1958 Lippitt 5-Stage Model Develop Need, Initiate, Implement, Stabilize, Terminate
- 1958 Lippitt 7-Stage Model Need, Relationship, Clarify, Alternatives, Transformation, Stabilization, Terminate
- 1962 Rogers Diffusion Model Innovators, Early Adopters, Early Majority
- 1969 Kubler 5-Step Model Denial, Anger, Bargaining, Depression, Acceptance
- 1973 Havelock 6-Step Model Relationship, Diagnosis, Resources, Pathway, Establish, Maintenance
- 1977 Beckhard 3-Step Model Present-State, Transition-State, Future-State
- 1979 Crosby Maturity Grid Uncertainty, Awakening, Enlightenment, Wisdom, Certainty
- 1983 Rogers 5-Step Model Knowledge, Persuasion, Decision, Implementation, Confirmation
- 1985 Kanter 10-Step Model Analyze, Vision, Separate, Urgency, Support, Align, Plan, Structures, Communicate, Reinforce
- 1986 Shewhart PDCA Model Plan, Do, Check, Act
- 1986 Deming PDSA Model Plan, Do, Study, Act
- 1986 Smith DMAIC Model Define, Measure, Analyze, Improve, Control
- 1986 Tichy 3-Step Model Awakening, Mobilizing, Reinforcing
- 1987 Beckhard 4-Step Model Sources, Forces, Readiness, Capability
- 1988 Egan 3-Step Model Diagnosis, Future Vision, Strategy
- 1989 Nadler 3-Step Model Energizing, Envisioning, Enabling
- 1990 Senge Fifth Discipline Mastery, Mental Models, Shared Vision, Team Learning, Systems Thinking
- 1991 Satir Satir Model Status Quo, Change, Resistance, Chaos, Transform, Learning, New Status Quo
- 1991 Moore Chasm Model Innovators, Chasm Early Adopters, Early Majority, Late Majority, Laggards
- 1995 Paulk Maturity Model Initial, Managed, Defined, Quantitatively Managed, Optimizing
- 1995 Kotter 8-Step Model Urgency, Coalition, Vision, Comm., Empower, Wins, Consolidate, Institute
- 1996 McFeeley IDEAL Model Initiating, Diagnosing, Establishing, Acting, Learning
- 1996 Maurer Resistance Model Maintain Clear Focus, Embrace Resistance, Respect Resisters, Relax, Join Resistance
- 2003 Luecke 7-Step Model Need, Vision, Leadership, Policy, Results, Initiate, Monitor
- 2005 DeFeo DMADV Model Define, Measure, Analyze, Design, Verify
- 2007 Peters 7-S Model Strategy, Structure, Systems, Shared Values, Style, Staff, Skills
- 2008 Patterson Influencer Model Desirability, Surpass Limits, Pressure, Strength in Numbers, Incentives, Environment
- 2009 Pink Drive Model Purpose, Autonomy, Mastery
- 2010 Heath Switch Model Direct the Rider, Motivate the Elephant, Shape the Path

TRADITIONAL Frameworks

- ☐ Top down big bang change is most often tried
- ☐ Punctuated equilibrium is most well known form
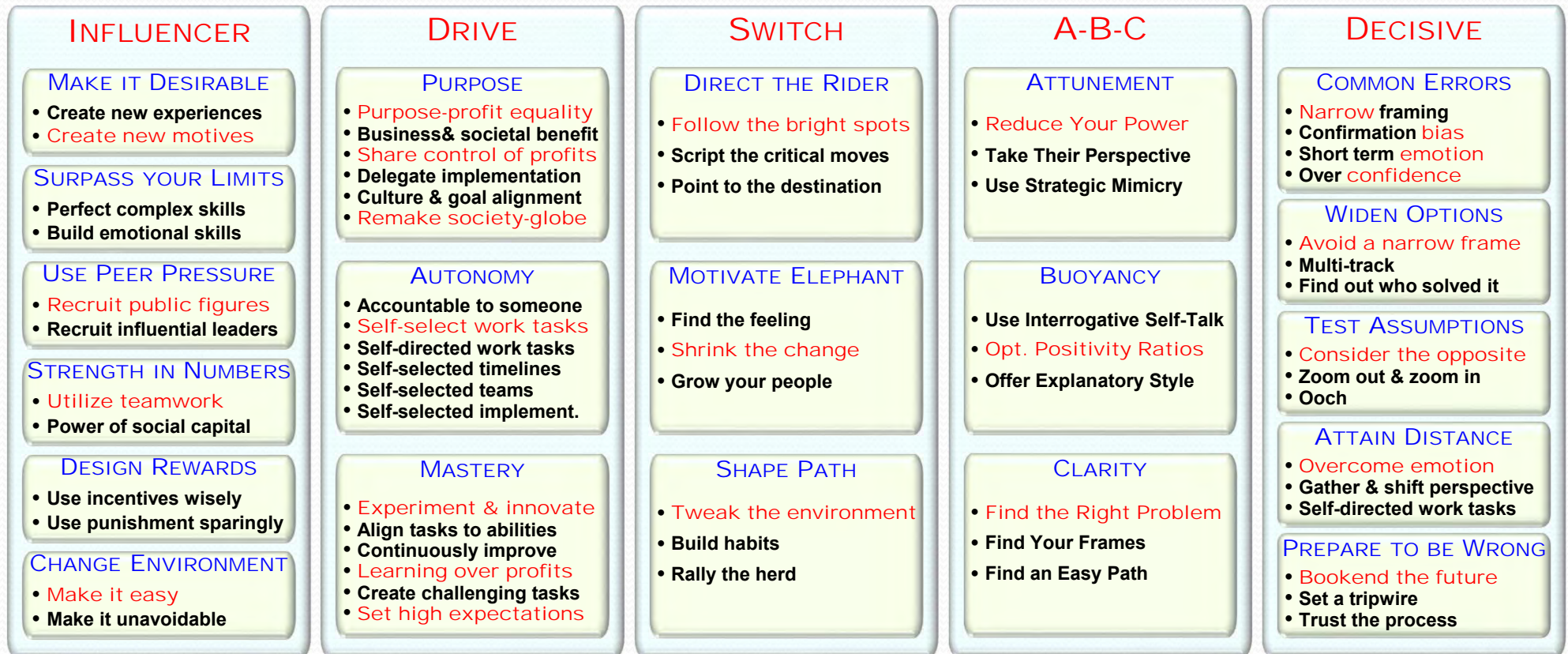- ☞ ☐ Project champions and coaching are very effective

Organization Change Methods

Method	Description
Punctuated Equilibrium	One time radical organizational change often motivated by a severe crisis, i.e., crisis is a catalyst for change
Personal Influence	Informal appeal for authority to change based on personal trust or relationships, i.e., elevator speech
Business Case	Compelling qualitative and quantitative business value analysis, i.e., return on investment analysis
Executive Coaching	Formal or informal mentoring or tutoring of organizational executives and senior leaders
Executive Commitment	A personal endorsement for change from an organizational executive or senior leader
Adequate Resources	Formal allocation of resources to execute a large organizational change initiative
Top Down Change	One time organization change initiative based on a formal strategic plan, i.e., big bang organization change
Model Driven Change	Isolated change initiatives based on step by step frameworks, i.e., PDCA, DMAIC, DMADV, etc.
Manager Involvement	Psychological involvement and commitment of middle managers to avoid bureaucratic obfuscation
Employee Involvement	Psychological involvement and commitment of lower level workforce to avoid operational resistance
Training & Education	Formal classroom instruction and education to impart the skills necessary for successful change
Evolutionary Change	Implementation of numerous smaller scale changes to prevent long term psychological resistance and chaos
Project Champion	Formal appointment of an individual to take personal responsibility for success of change, i.e., heavyweight PM
Coaching & Mentoring	Formal or informal mentoring or tutoring of employees or team members to help them overcome hidden obstacles
Just Do It	Assuming personal responsibility for change with or without formal authorization, i.e., forgiveness vs. permission

Holman, P., Devane, T., & Cady, S. (2007). *The change handbook*: *The definitive resource on today's best methods for emerging whole systems*. Berrett-Koehler.

EMERGING Frameworks

- ☐ Change, no matter how small or large, is difficult
- ☐ Smaller focused changes help to cross the chasm
- ☞ ☐ Validating, simplifying, & incrementalism are keys

INFLUENCER	DRIVE	SWITCH	A-B-C	DECISIVE
MAKE IT DESIRABLE • Create new experiences • Create new motives	**PURPOSE** • Purpose-profit equality • Business& societal benefit • Share control of profits • Delegate implementation • Culture & goal alignment • Remake society-globe	**DIRECT THE RIDER** • Follow the bright spots • Script the critical moves • Point to the destination	**ATTUNEMENT** • Reduce Your Power • Take Their Perspective • Use Strategic Mimicry	**COMMON ERRORS** • Narrow framing • Confirmation bias • Short term emotion • Over confidence
SURPASS YOUR LIMITS • Perfect complex skills • Build emotional skills				**WIDEN OPTIONS** • Avoid a narrow frame • Multi-track • Find out who solved it
USE PEER PRESSURE • Recruit public figures • Recruit influential leaders	**AUTONOMY** • Accountable to someone • Self-select work tasks • Self-directed work tasks • Self-selected timelines • Self-selected teams • Self-selected implement.	**MOTIVATE ELEPHANT** • Find the feeling • Shrink the change • Grow your people	**BUOYANCY** • Use Interrogative Self-Talk • Opt. Positivity Ratios • Offer Explanatory Style	**TEST ASSUMPTIONS** • Consider the opposite • Zoom out & zoom in • Ooch
STRENGTH IN NUMBERS • Utilize teamwork • Power of social capital				**ATTAIN DISTANCE** • Overcome emotion • Gather & shift perspective • Self-directed work tasks
DESIGN REWARDS • Use incentives wisely • Use punishment sparingly	**MASTERY** • Experiment & innovate • Align tasks to abilities • Continuously improve • Learning over profits • Create challenging tasks • Set high expectations	**SHAPE PATH** • Tweak the environment • Build habits • Rally the herd	**CLARITY** • Find the Right Problem • Find Your Frames • Find an Easy Path	**PREPARE TO BE WRONG** • Bookend the future • Set a tripwire • Trust the process
CHANGE ENVIRONMENT • Make it easy • Make it unavoidable				

Patterson, K., et al. (2008). *Influencer*: *The power to change anything*: New York, NY: McGraw-Hill.
Pink, D. H. (2009). *Drive*: *The surprising truth about what motivates us*. New York, NY: Riverhead Books.
Heath, C., & Heath, D. (2010). *Switch*: *How to change things when change is hard*. New York, NY: Random House.
Pink, D. H. (2012). *To sell is human*: *The surprising truth about moving others*. New York, NY: Riverhead Books.
Heath, C., & Heath, D. (2013). *Decisive*: *How to make better choices in life and work*. New York, NY: Random House.

INFLUENCER Framework

- ☐ Created by Kerry Patterson et al. in 2008
- ☐ Model for change based on top-down leadership
- ☞ ☐ Motivation, commitment, & critical mass are keys

Make It Desirable
- **Remove Pain** – Get Rid of Unpleasant Work
- **Make it Pleasurable** – Make it Fun to Do
- **Create New Experiences** – Provide Change of Pace
- **Use Motives** – Present of Variety of Challenges
- **Provide Choices** – Let People Self-Select Tasks

Strength in Numbers
- **Social Capital** – Relationships are Important
- **The Willing** – Start with Enthusiastic People
- **Participation** – Don't Try to Tackle it Alone
- **Courage to Try** – Change Won't Happen by Itself
- **Small Band** – Small Teams Make a Big Difference

Surpass Your Limits
- **Will thru Skill** – Train People in New Skills
- **Prowess thru Practice** – Use Simple Exercises First
- **Complex Skills** – Scaleup to More Complex Problems
- **Emotional Skills** – Teach Soft, People, & Social Skills
- **Brain Skills** – Encourage Intellectual Development

Carrot & Sticks
- **Be Wise** – Use Incentives Appropriately
- **Vital Behaviors** – Identify Critical Changes
- **Valid Outcomes** – Reward Positive Results
- **Discourage** – Don't Reward Old Behaviors
- **Inclusiveness** – Don't Divide & Conquer

Harness Peer Pressure
- **Power of One** – One Person Makes a Big Difference
- **Right One** – It Matters Who the Change Leader Is
- **Social Support** – Form Small Teams to Get Going
- **Critical Mass** – Get Organization to Tipping Point
- **Everyone** – Everyone Will Eventually Join In

Leverage Environment
- **Notice** – Don't Ignore Environment
- **Visibility** – Provide Transparency into Process
- **Measure** – Can't Manage What You Don't Measure
- **Simplify** – Change Environment to Make it Easy
- **Unavoidable** – Remove Ability to Avoid Change

Patterson, K., et al. (2008). *Influencer*: *The power to change anything*: New York, NY: McGraw-Hill.

DRIVE Framework

- Created by Dan Pink in 2009
- Model for bottom-up egalitarianism
- ☞ Meaning, empowerment, & self-direction are keys

Purpose
- **Purpose** – Emphasize Purpose Over Profits
- **Goal** – Obtain Goals from Bottom Up
- **Power** – Allocate Profits for Greater Good
- **Policy** – Allow People to Select Solution Path
- **Culture** – Reinforce Culture of Purpose vs. Profit
- **Rejuvenation** – Focus on Remaking Society & World

Autonomy
- **Accountable** – Ensure People Accountable for Goals
- **Control** – Allow People to Govern & Manage Themselves
- **Task** – Allow People to Self Identify & Select Tasks
- **Time** – Allow People to Prioritize Their Time & Tasks
- **Team** – Allow People to Form Their Own Teams & Groups
- **Techniques** – Allow People to Select Methods & Tools

Mastery
- **Inquiry** – Allow People to Inquire & Be Creative
- **Flow** – Allow People to Choose the Work They Want
- **Mindset** – Allow People Choose a Roadmap to Improve
- **Learning** – Allow People to Learn & Grow As Needed
- **Challenge** – Allow People to Try Complex New Challenges
- **Asymptotic** – Allow People Latitude for Margin of Error

Pink, D. H. (2009). *Drive: The surprising truth about what motivates us*. New York, NY: Riverhead Books.

Switch Framework

- Created by Chip & Dan Heath in 2010
- Incremental model for large bottom-up change
- ☞ **Observation, incrementalism, & minimalism are key**

Direct Rider	• **Follow Bright Spots** – Investigate & Clone What Works • **Script Critical Moves** – Formulate Vision & Behaviors • **Point Our Destination** – Establish High Stretch Goals
Motivate Elephant	• **Find Feeling** – Appeal to Right-Brained Majority • **Shrink Change** – Break Change Into Small Chunks • **Grow People** – Instill Sense of Extraordinariness
Shape Path	• **Tweak Environment** – Reduce Complexity & Simplify • **Build Habits** – Create Simple Recipes & Process Steps • **Rally Herd** – Get Everyone Involved & Scale Up & Out

Heath, C., & Heath, D. (2010). *Switch: How to change things when change is hard*. New York, NY: Random House.

A-B-C Framework

- Created by Dan Pink in 2012
- Model of inside-out change management
- Empathy, motivation, & manageable scope are keys

Attune to Others	• **Reduce Power** – Increase Your Power by Reducing It • **Change Perspective** – Use Your Head as well as Heart • **Chameleon Effect** – Mimic Behavior of Other People
Buoyant Optimism	• **Interrogative Talk** – Critically Analyze the Situation • **Optimize Positivity** – Maintain a 3:1 Positivity Ratio • **Self Reinforcement** – Frequently Reassure Yourself
Clarify Solution	• **Right Problem** – Invest in Finding the Right Problems • **Find Frames** – Contrast With Alternatives for Clarity • **Find Easy Path** – Provide Easy Method to Your Solution

Pink, D. H. (2012). *To sell is human*: *The surprising truth about moving others*. New York, NY: Riverhead Books.

WRAP Framework

- Created by Chip & Dan Heath in 2013
- Model for selecting valid change initiatives
- ☞ Tradeoffs, independence, & measurement are keys

Widen Choices	• **Avoid Narrow Frame** – Use Quantitative Decision-Making • **Multi-Track** – Evaluate Multiple Comparable Options • **Someone Else** – Conduct External Benchmarking Studies
Reality Test	• **Consider Opposite** – Assume Primary Option is Wrong • **Zoom In & Out** – Perform Analysis Both Inside & Out • **Beta Test** – Incrementally Rollout Solution
Attain Distance	• **Overcome Emotion** – Detach Self from Decision-Making • **Shift Perspectives** – Appoint Small Independent Panels • **Establish Priorities** – Establish Quantitative Criteria
Prepare to Change	• **Bookend Future** – Identify Range of Good Alternatives • **Set Tripwire** – Establish Decision-Making Constraints • **Trust Process** – Honor Decision-Making Outcomes

Heath, C., & Heath, D. (2013). *Decisive*: *How to make better choices in life and work*. New York, NY: Random House.

EPIC Framework

- Created by Chip & Dan Heath in 2017
- Model for creating positive change experiences
- Special, rewards, epiphany, & interpersonal interaction

Elevation	• **Boost Sensory Appeal** – Create highly-unique experiences • **Raise the Stakes** – Recreate monumental societal events • **Break the Script** – Provide highly-personalized services
Pride	• **Recognition** – Reward people for unique accomplishments • **Multiply Milestones** – Create incremental stretch goals • **Practice Courage** – Show people how to be courageous
Insight	• **Clear Insight** – Provide simple illustrations • **Compress Time** – Illustrate long-term effects and outcomes • **Self Discovery** – Enable people to learn from experience
Connection	• **Shared Struggle** – Group or team problem solving • **Synchronized Moment** – Enable people to learn together • **Individual Interactions** – Encourage empathy and support

Heath, C., & Heath, D. (2017). *Power of moments*: *Why certain experiences have extraordinary impact*. New York, NY: Simon & Schuster.

CULTURE CODE Framework

- ☐ Created by Dan Coyle in 2018
- ☐ Model to create environment for change
- ☞ ☐ Group safety, vulnerability, & purpose are keys

Build Safety	• **Listen** – Overcommunicate active listening • **Thankful** – Overdo saying thank you often • **Collaboration** – Create safe collision rich spaces • **Experience** – Select people with the right experience • **Equality** – Make sure everyone has a voice • **Recognition** – Capitalize on special moments and milestones
Share Vulnerable Moments	• **Communicate** – Overcommunicate vision, goal, and objective • **Humble** – Resist temptation to reflexively add value • **Reviews** – Frequent continuous improvement retrospectives • **Balance** – Balance candor versus brutal honesty • **Walk the Talk** – Align language with action • **Empower** – Make the leader occasionally disappear
Establish Purpose	• **Priorities** – Establish and rank clear priorities • **Emphasize** – Reiterate the highest priorities often • **Impact** – Identify and pursue creativity versus proficiency • **Measure** – Measure early and often what really matters • **Reinforce** – Use artifacts and other reinforcing symbols • **Behaviors** – Focus on stretch goals and innovative behaviors

Coyle, D. (2018). *Culture code*: *The secrets of highly successful groups*. New York, NY: Bantam Books.

CORE Change Principles

- **Find Innovators and Early Adopters** – In the beginning, we focus our efforts on teams who actually want to help—these are our kindred spirits and fellow travelers who are the first to volunteer to start the change journey. In the ideal, these are also people who are respected and have a high degree of influence over the rest of the organization, giving our initiative more credibility

- **Build Critical Mass and Silent Majority** – In the next phase, we seek to expand the change to more teams and value streams with the goal of creating a stable base of support. By working with teams who are receptive to our ideas, even if they are not the most visible or influential groups, we expand our coalition who are generating more successes, creating a "bandwagon effect" that further increases our influence. We specifically bypass dangerous political battles that could jeopardize our initiative

- **Identify the Holdouts** – The "holdouts" are the high profile, influential detractors who are most likely to resist (and maybe even sabotage) our efforts. In general, we tackle this group only after we have achieved a silent majority, when we have established enough successes to protect our change initiative

Kim, G., Debois, P., Willis, J., & Humble, J. *The devops handbook*: *How to create world-class agility, reliability, and security in technology organizations*. Portland, OR: IT Revolution Press.

Lean & Agile Measures

- ☐ Late big bang integration increases WIP backlog
- ☐ Agile testing early and often reduces WIP backlog
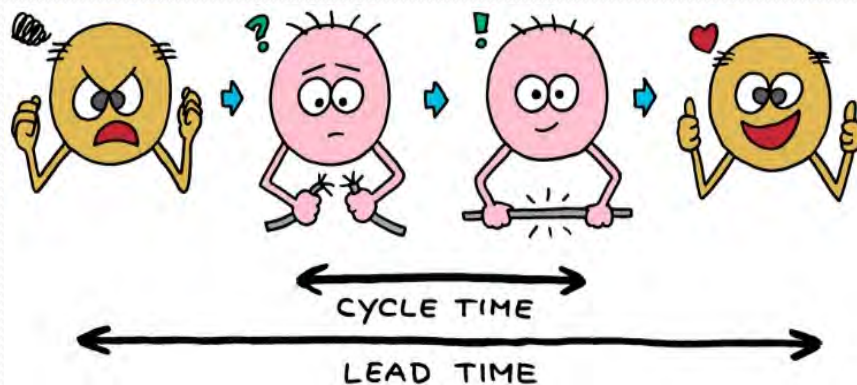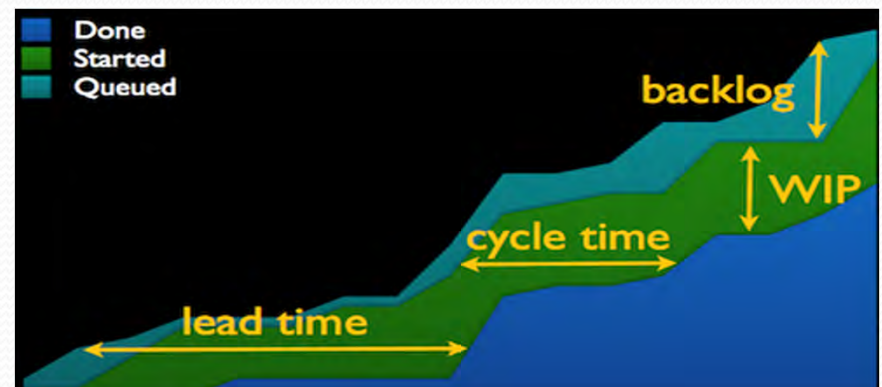- ☞ ☐ CI/CD/DevOps lower WIP, Cycle Time, & Lead Time

KANBAN BOARD
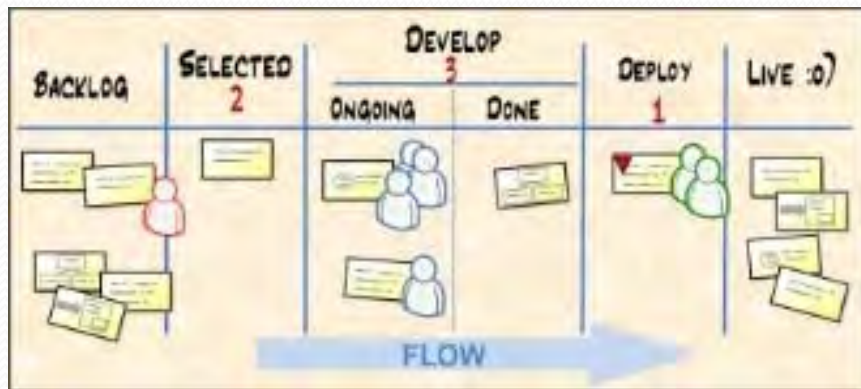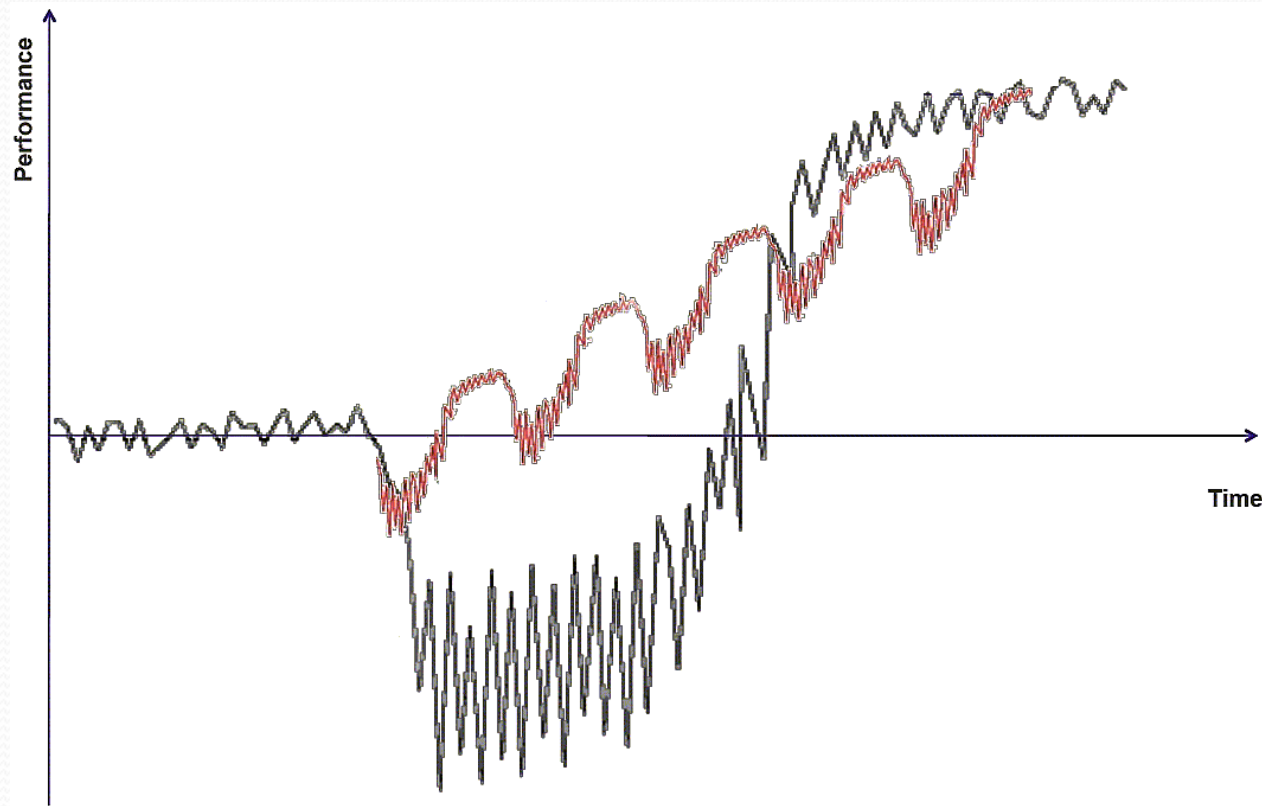

CUMULATIVE FLOW DIAGRAM
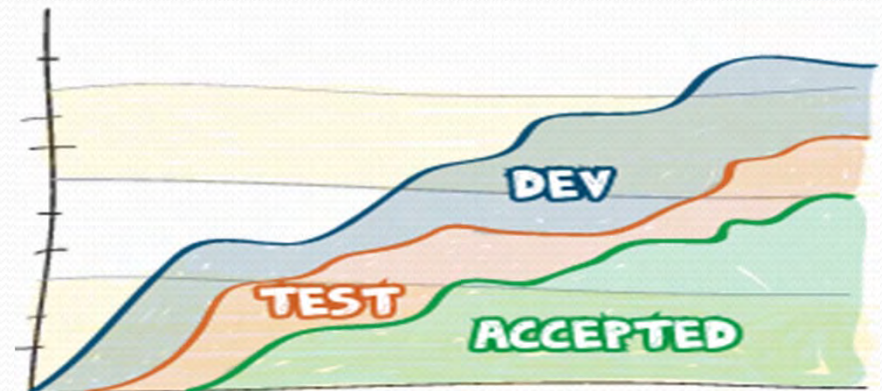
LEAD TIME & CYCLE TIME

PUTTING IT ALL TOGETHER

Nightingale, C. (2015). *Seven lean metrics to improve flow*. Franklin, TN: LeanKit.

Lean & Agile Org. Change Success

- Enable us to cross-the-chasm sooner or earlier
- Reduce chaos associated with large-scale change
- Reduce or divide the risk of change into small pieces

Sidky, A. (2008). *Becoming agile in an imperfect world*. Washington, DC: Agile Project Leadership Network (APLN).

Lean & Agile Organization Change

Rico, D. F. (2016). *Agile businesses*: *A metamodel of lean and agile organizational strategies*. Retrieved March 1, 2016, from http://davidfrico.com

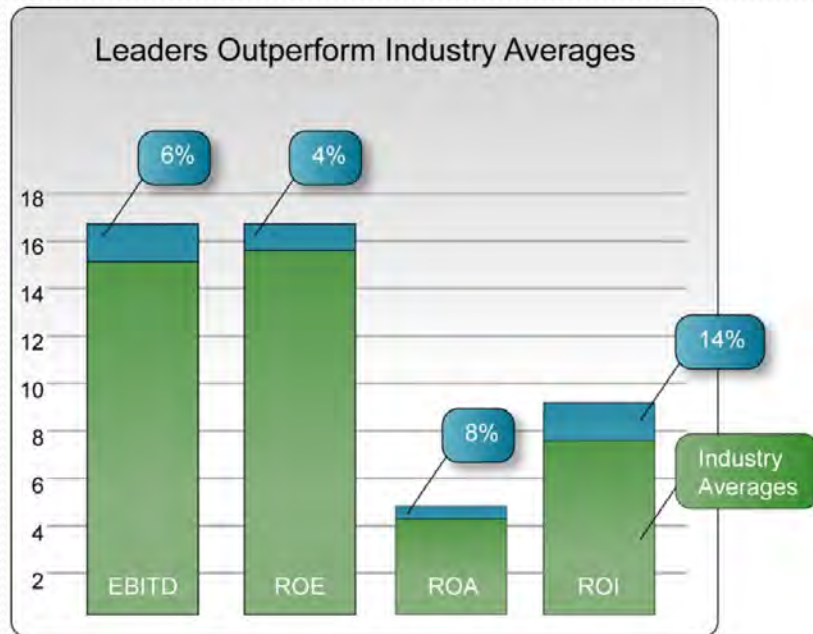33
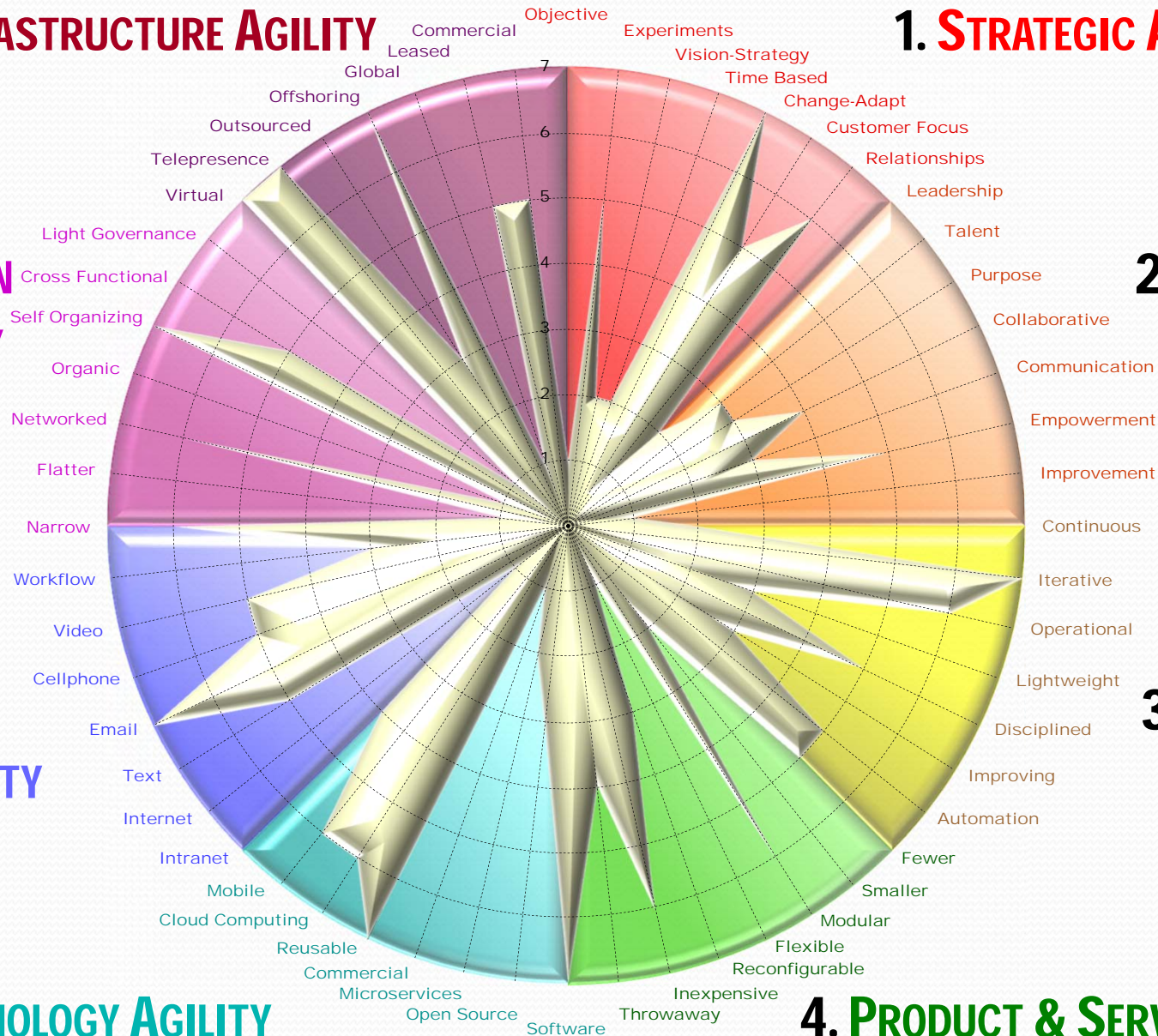
Lean & Agile Success Factors

- ☐ Everything begins with lean & agile principles
- ☐ Next step is smaller portfolio & simpler designs
- ☞ ☐ Final step is modular interfaces & E2E automation

Kim, G., Debois, P., Willis, J., & Humble, J. *The devops handbook*: *How to create world-class agility, reliability, and security in technology organizations*. Portland, OR: IT Revolution Press.
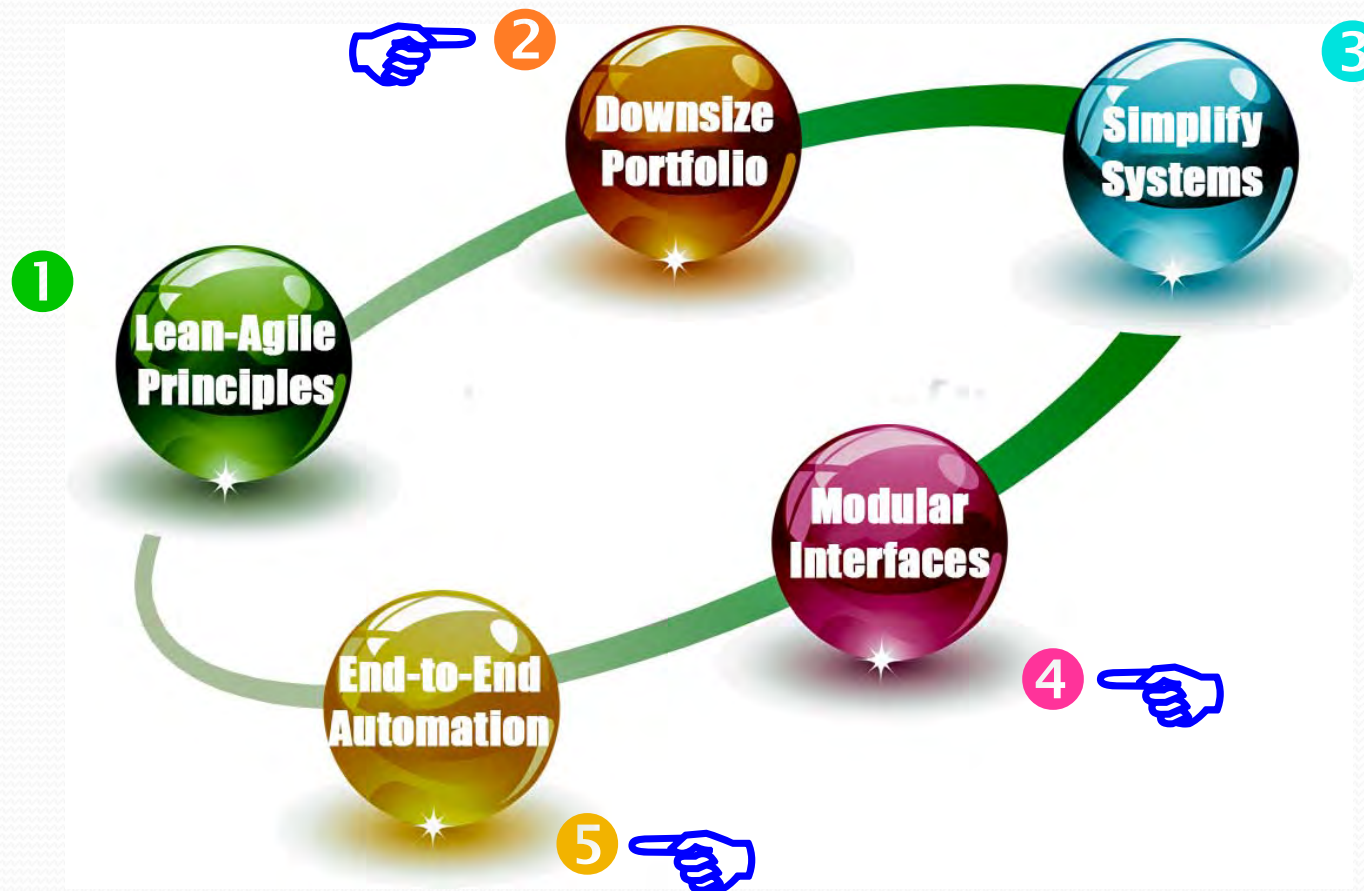
Fin. Benefits to ENTERPRISE AGILITY

- Study of 15 agile vs. non-agile Fortune 500 firms
- Based on models to measure organizational agility
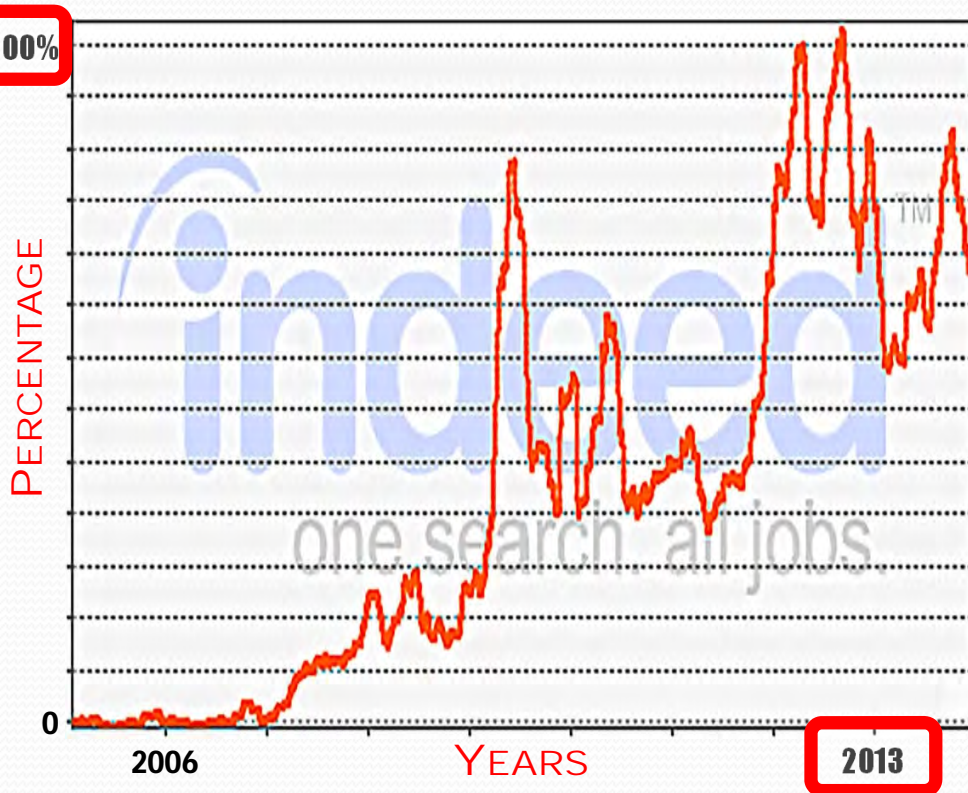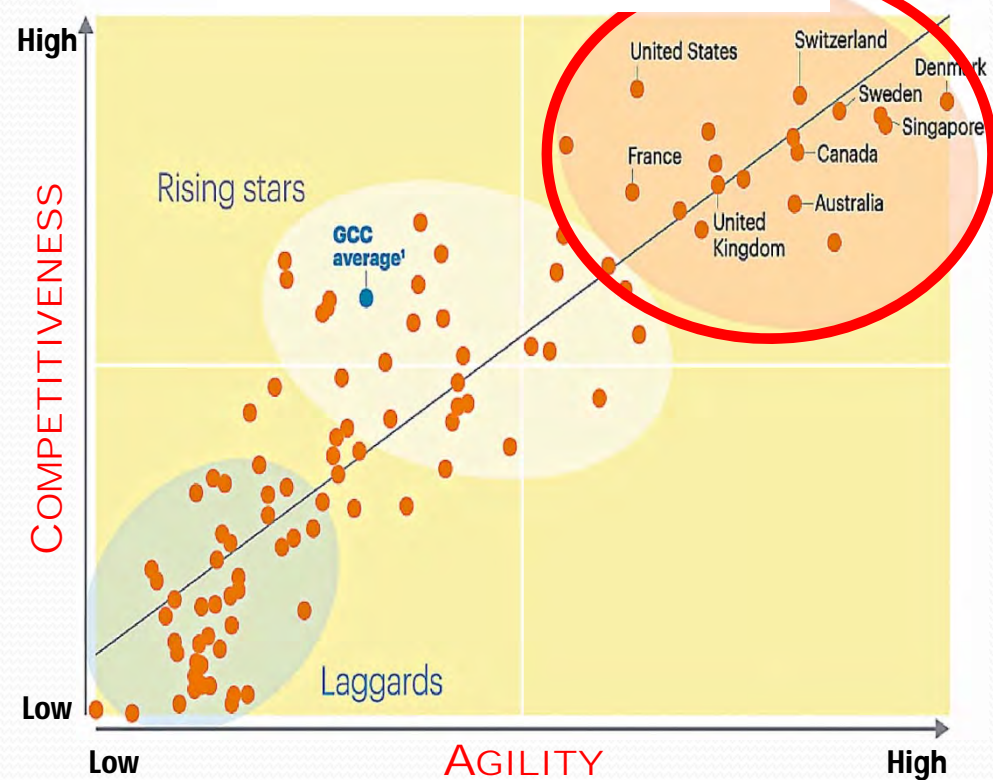- ☞ Agile firms out perform non agile firms by up to 36%

Hoque, F., et al. (2007). *Business technology convergence. The role of business technology convergence in innovation and adaptability and its effect on financial performance*. Stamford, CT: BTM Corporation.

Nat'l Benefits to ENTERPRISE AGILITY

- ☐ U.S. gov't agile jobs grew by 13,000% from 2006-2013
- ☐ Adoption is higher in U.S. DoD than Civilian Agencies
- ☞ ☐ GDP of countries with high adoption rates is greater

GOVERNMENT AGILE JOB GROWTH

13,000%

PERCENTAGE

0

2006   YEARS   2013

GOVERNMENT COMPETITIVENESS

High

COMPETITIVENESS

Rising stars

GCC average[1]

United States   Switzerland   Denmark
Sweden
Singapore
France   Canada
United   Australia
Kingdom

Laggards

Low

Low   AGILITY   High

Suhy, S. (2014). *Has the U.S. government moved to agile without telling anyone*? Retrieved April 24, 2015, from http://agileingov.com
Porter, M. E., & Schwab, K. (2008). *The global competitiveness report: 2008 to 2009.* Geneva, Switzerland: World Economic Forum.
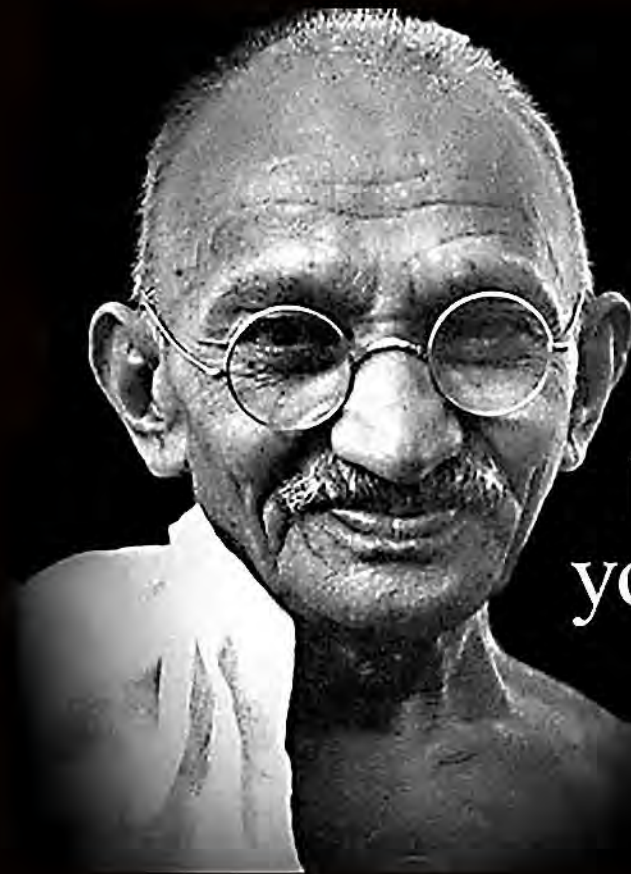
Organizational Change SUMMARY

- • LEADERSHIP
- • WHO MATTERS
- • THINK OBJECTIVELY
- • SMALL (MICRO) CHANGES
- • SENSE AND RESPOND (EXPERIMENTS)
- • LISTEN, LEARN, OBSERVE (SCAN ENVIRONMENT)
- • JUST DO IT (NO POMP, CIRCUMSTANCE, AND FORMALITY)
- • MAKE IT SEAMLESS (VERY EASY, AUTOMATED, AND TRANSPARENT)
- • KEEP SYSTEM AS STABLE AS POSSIBLE (DON'T MAKE TOO MANY WAVES)
- • REINFORCE POSITIVE BEHAVIORS (REWARD PEOPLE FOR SMALL CHANGES)
- • USE CONTINUOUS IMPROVEMENT AND MASTERY (ONE SIZE DOES NOT FIT ALL)
- • EMPOWER OTHERS TO TAKE PERSONAL OWNERSHIP (HUMANS ARE UNSTOPPABLE)
- • MAKE IT FUN, ENJOYABLE, PLEASANT, AND MEMORABLE (OVERDOSE ON SOFT SKILLS)
- • BE PATIENT, CHANGE IS LIKE A GLACIER MOVING (SUBTLE, INEVITABLE, AND POWERFUL)
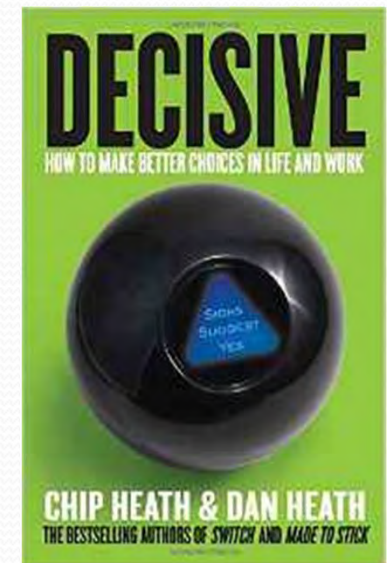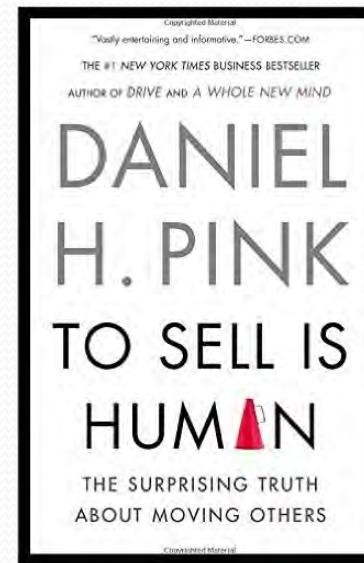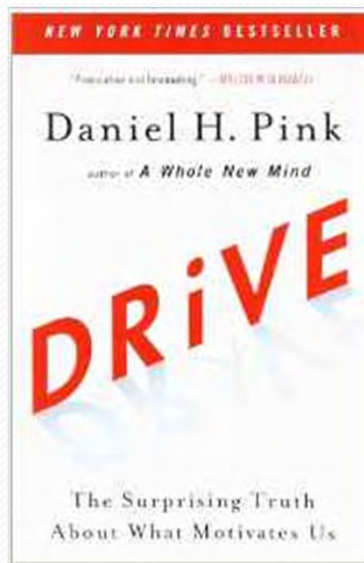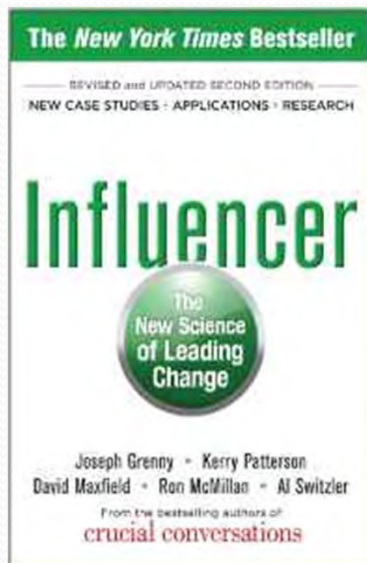
Org. Change — Mahatma Gandhi

GANDHI

You must
be the change
you wish to see
in the world.
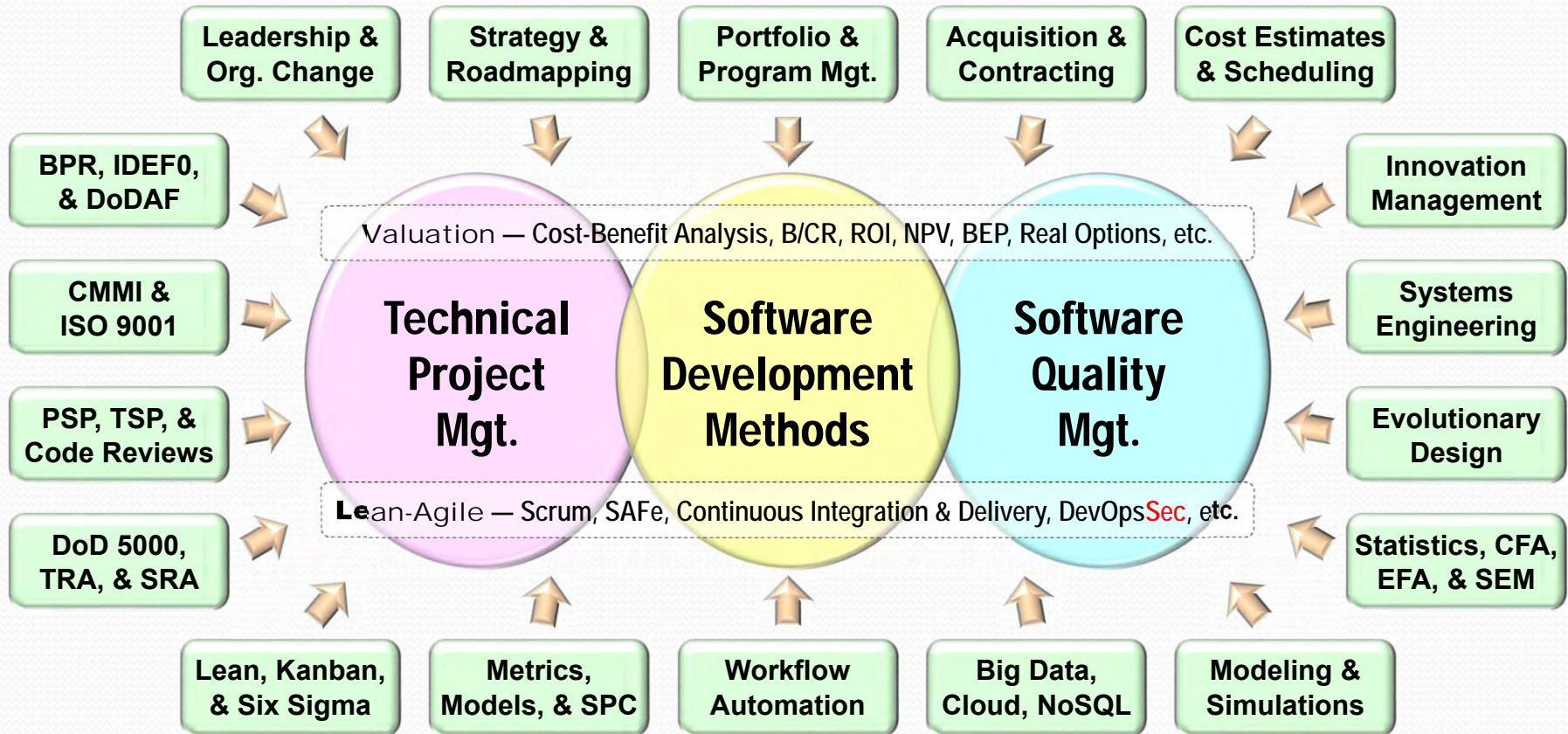
Organizational Change REFERENCES

- ☐ Guides to lean & agile organizational change
- ☐ Illustrates key principles, concepts, and practices
- ☞ ☐ <u>Keys to applying lean ideas for successful changes</u>

Patterson, K., et al. (2008). *Influencer*: *The power to change anything*: New York, NY: McGraw-Hill.
Pink, D. H. (2009). *Drive*: *The surprising truth about what motivates us*. New York, NY: Riverhead Books.
Heath, C., & Heath, D. (2010). *Switch*: *How to change things when change is hard*. New York, NY: Random House.
Pink, D. H. (2012). *To sell is human*: *The surprising truth about moving others*. New York, NY: Riverhead Books.
Heath, C., & Heath, D. (2013). *Decisive*: *How to make better choices in life and work*. New York, NY: Random House.

Dave's PROFESSIONAL CAPABILITIES

Leadership & Org. Change

Strategy & Roadmapping

Portfolio & Program Mgt.

Acquisition & Contracting

Cost Estimates & Scheduling

BPR, IDEF0, & DoDAF

CMMI & ISO 9001

PSP, TSP, & Code Reviews

DoD 5000, TRA, & SRA

Innovation Management

Systems Engineering

Evolutionary Design

Statistics, CFA, EFA, & SEM

Valuation — Cost-Benefit Analysis, B/CR, ROI, NPV, BEP, Real Options, etc.

Technical Project Mgt.

Software Development Methods

Software Quality Mgt.

Lean-Agile — Scrum, SAFe, Continuous Integration & Delivery, DevOpsSec, etc.

Lean, Kanban, & Six Sigma

Metrics, Models, & SPC

Workflow Automation

Big Data, Cloud, NoSQL

Modeling & Simulations

STRENGTHS – Communicating Complex Ideas • Brownbags & Webinars • Datasheets & Whitepapers • Reviews & Audits • Comparisons & Tradeoffs • Brainstorming & Ideation • Data Mining & Business Cases • Metrics & Models • Tiger Teams & Shortfuse Tasks • Strategy, Roadmaps, & Plans • Concept Frameworks & Multi-Attribute Models • Etc.

35+ YEARS IN IT INDUSTRY

- **Data mining**. Metrics, benchmarks, & performance.
- **Simplification**. Refactoring, refinement, & streamlining.
- **Assessments**. Audits, reviews, appraisals, & risk analysis.
- **Coaching**. Diagnosing, debugging, & restarting stalled projects.
- **Business cases**. Cost, benefit, & return-on-investment (ROI) analysis.
- **Communications**. Executive summaries, white papers, & lightning talks.
- **Strategy & tactics**. Program, project, task, & activity scoping, charters, & plans.

PMP, CSEP, FCP, FCT, ACP, CSM, SAFE, & DEVOPS

40