

# *Business Value of* **Agile Organizations**

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## **Strategies, Models, & Principles for Enterprise-Level Agility**

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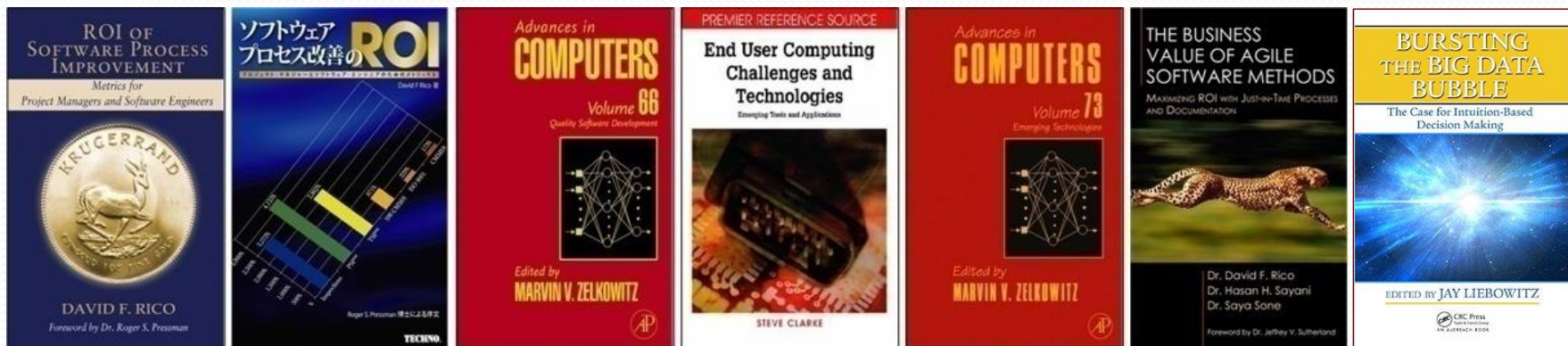
Agile Capabilities: <http://davidfrico.com/rico-capability-agile.pdf>

Agile Resources: <http://www.davidfrico.com/daves-agile-resources.htm>

Agile Cheat Sheet: <http://davidfrico.com/key-agile-theories-ideas-and-principles.pdf>

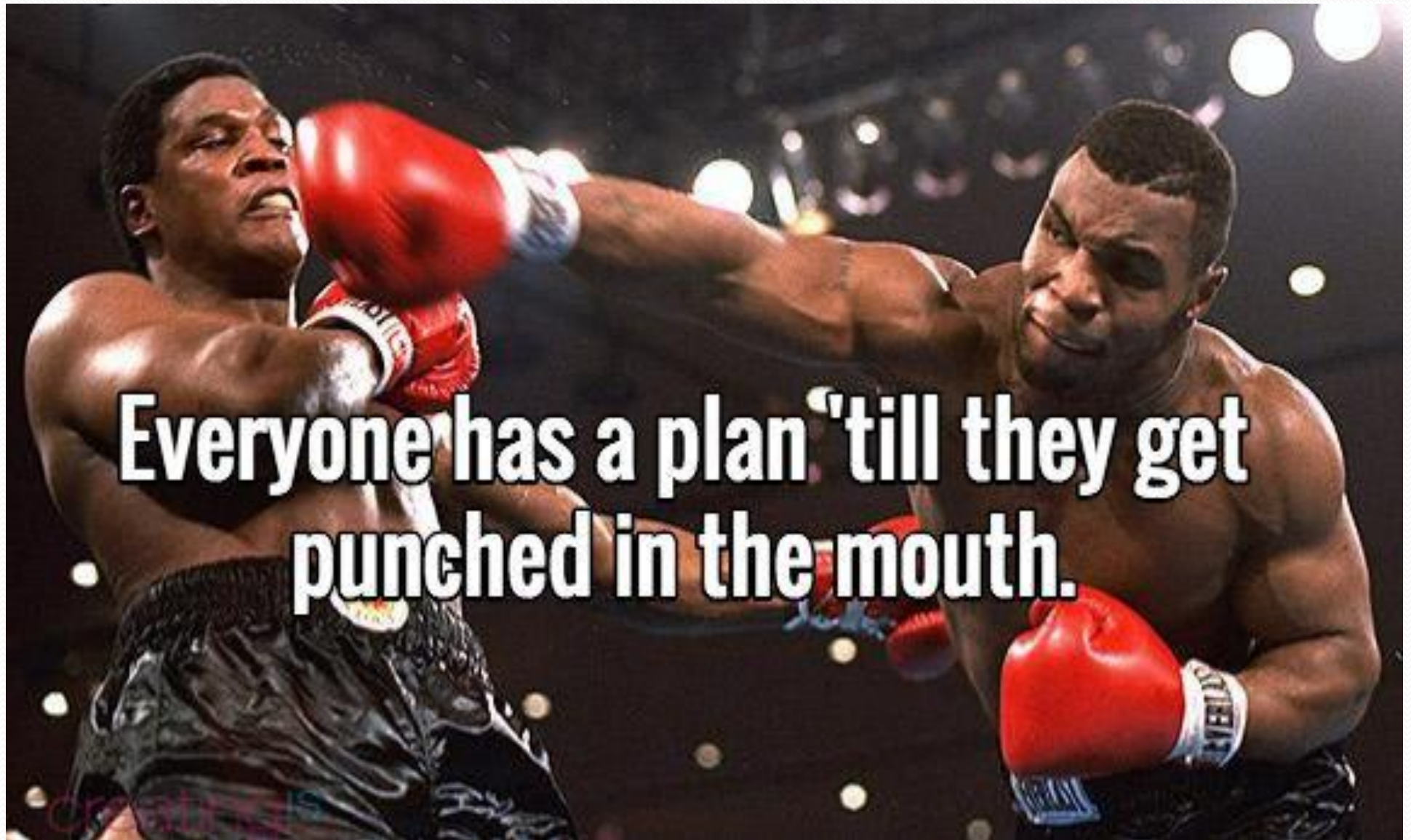
# Dave's Background

- Gov't contractor with 32+ 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, 134 talks to 12,000+ people
- Specializes in metrics, models, & cost engineering
- Cloud Computing, SOA, Web Services, FOSS, etc.
- Adjunct at five Washington, DC-area universities

# Business Agility—Mike Tyson

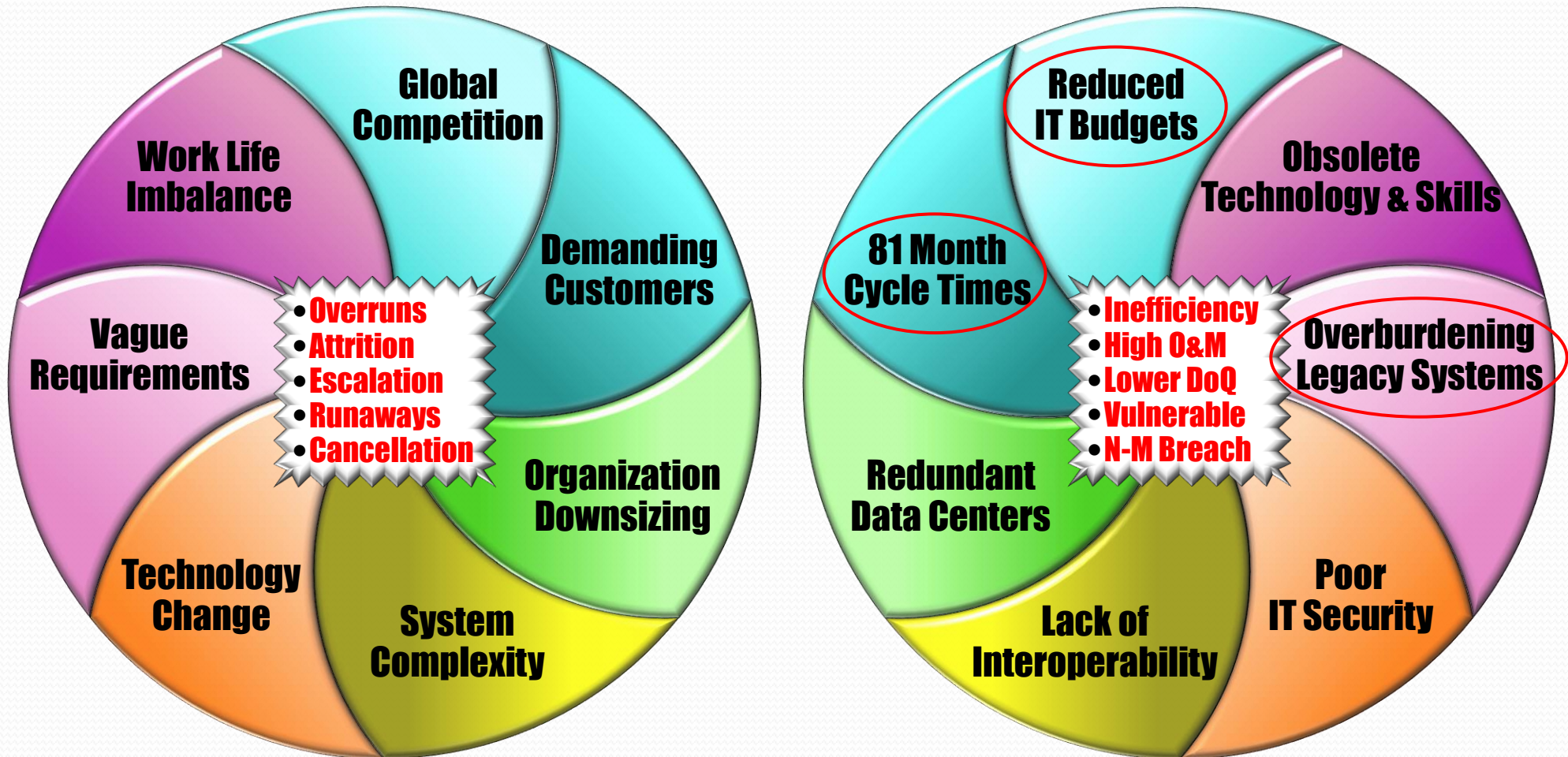


# Business Agility—Related Quotes

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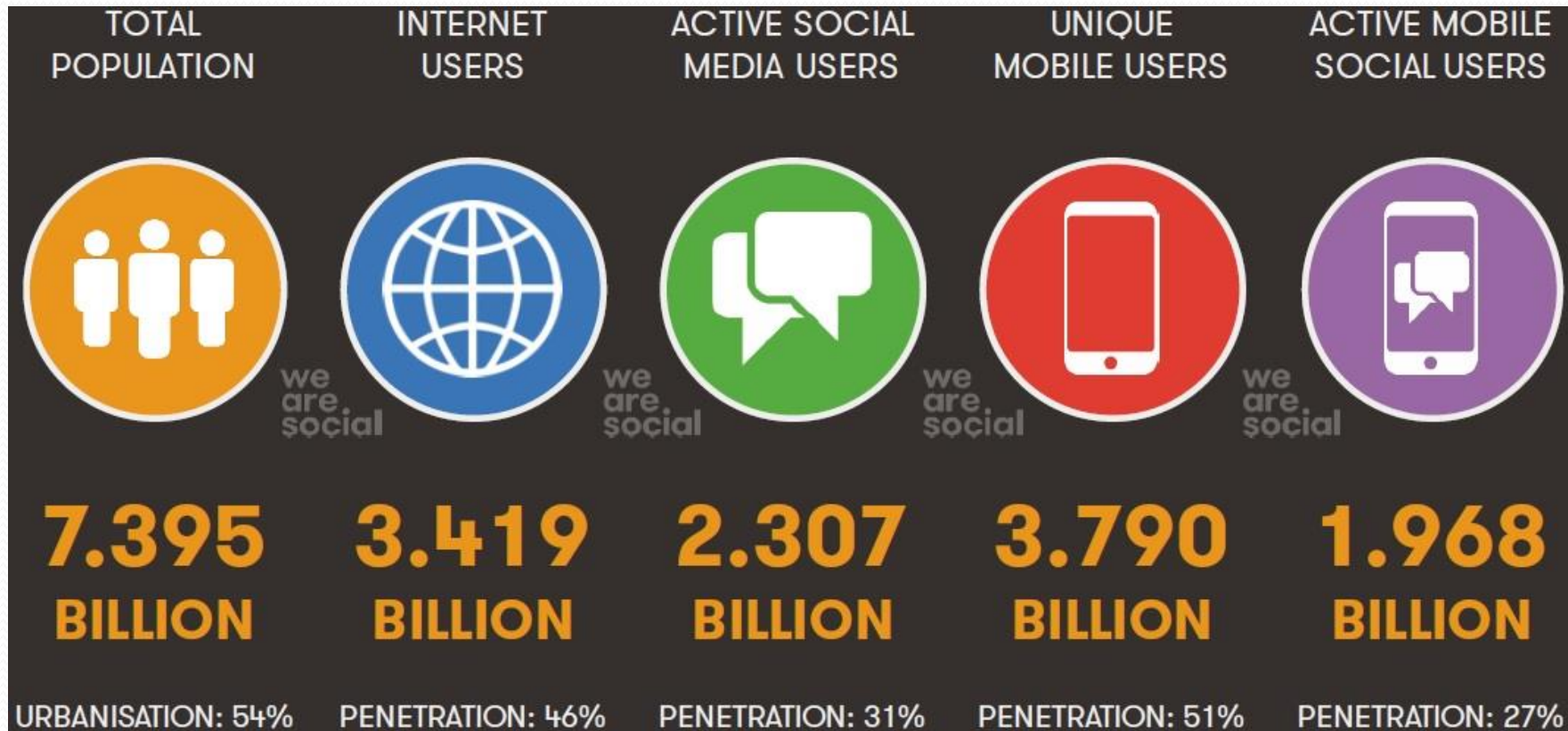
- *Everybody has a plan until I punch them in the mouth*  
-- Mike Tyson
- *It's tough to make predictions, especially about the future*  
-- Mark Twain
- *A good plan violently executed today is better than a perfect plan tomorrow*  
-- George Patton
- *You can't predict the future, because it's becoming more unpredictable*  
-- William Fulmer
- *Those who have knowledge don't predict, those who predict don't have knowledge*  
-- Lao Tzu
- *Some things are so unexpected that no one is prepared for them*  
-- Leo Roste
- *Forecasters aren't smart, they merely have their ignorance better organized*  
-- Anonymous
- *The herd instinct among forecasters makes sheep look like independent thinkers*  
-- Edgar Fiedler
- *It's best to be bold instead of right, because most people are wrong anyway*  
-- Dave Rico

# Business Agility Drivers



# Today's Global Marketplace

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



# Business Agility—Newton's 3<sup>rd</sup> Law

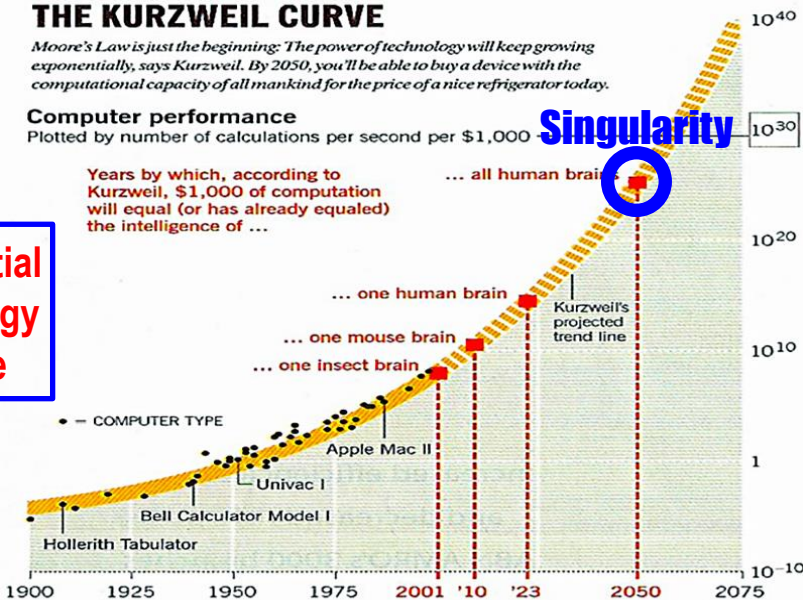
## THE KURZWEIL CURVE

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

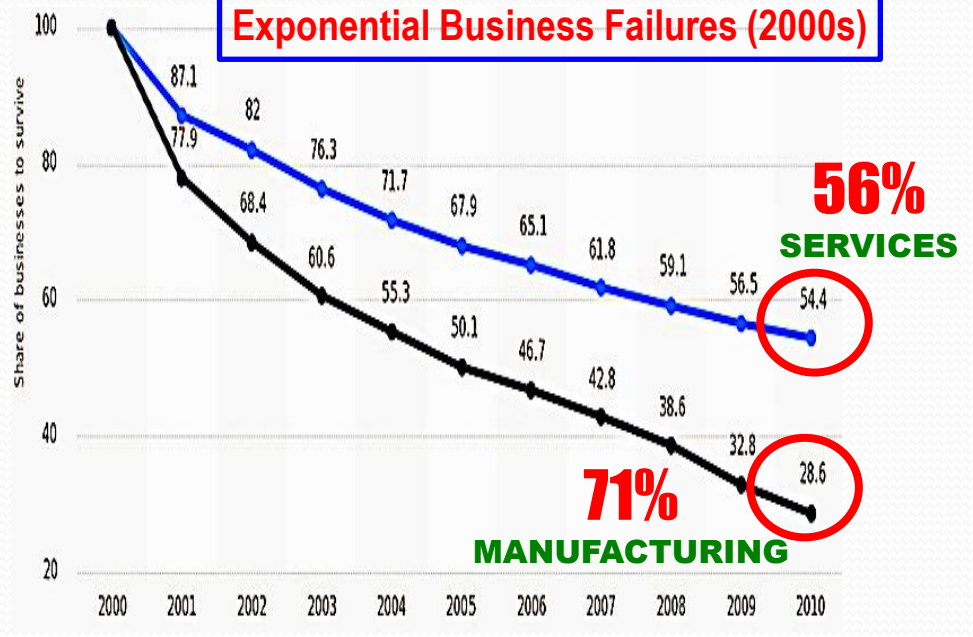
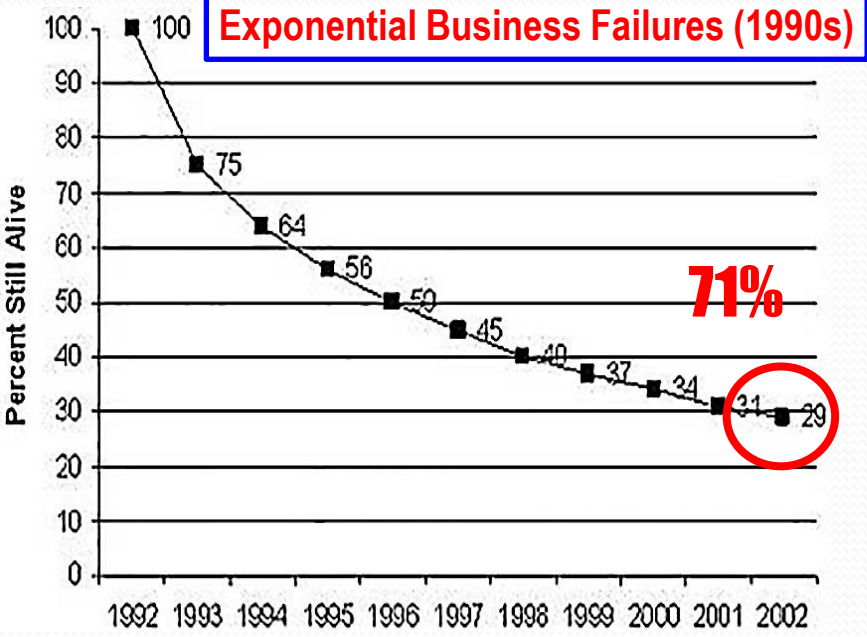
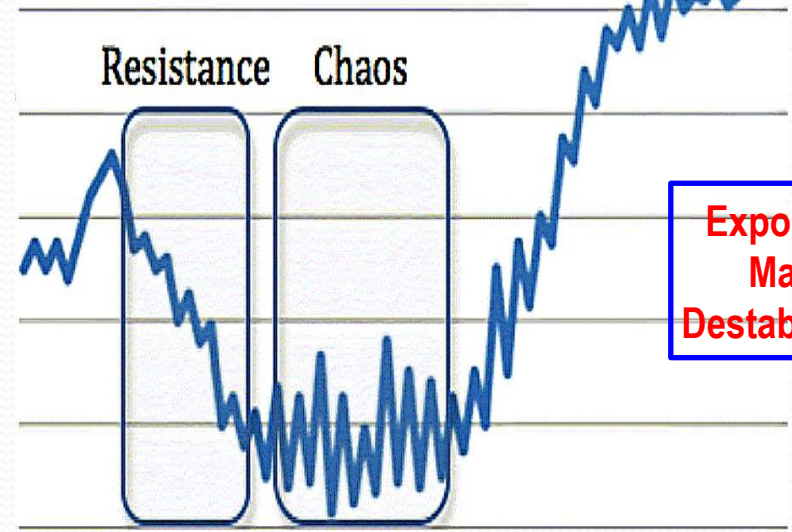
Plotted by number of calculations per second per \$1,000

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

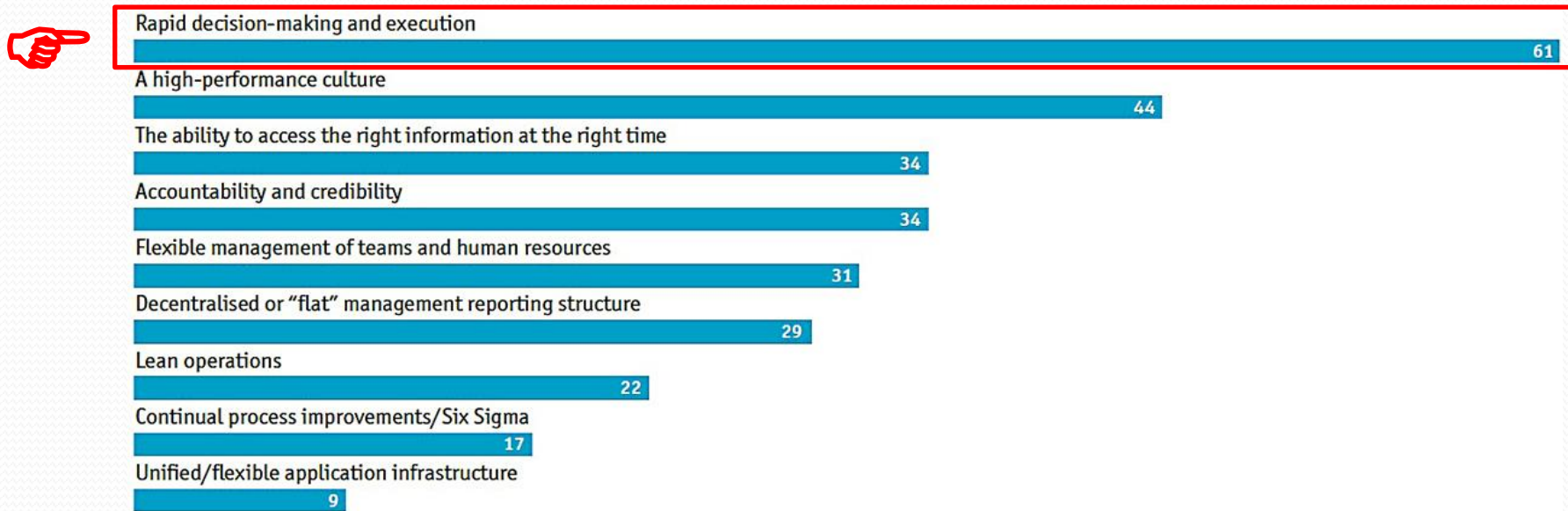
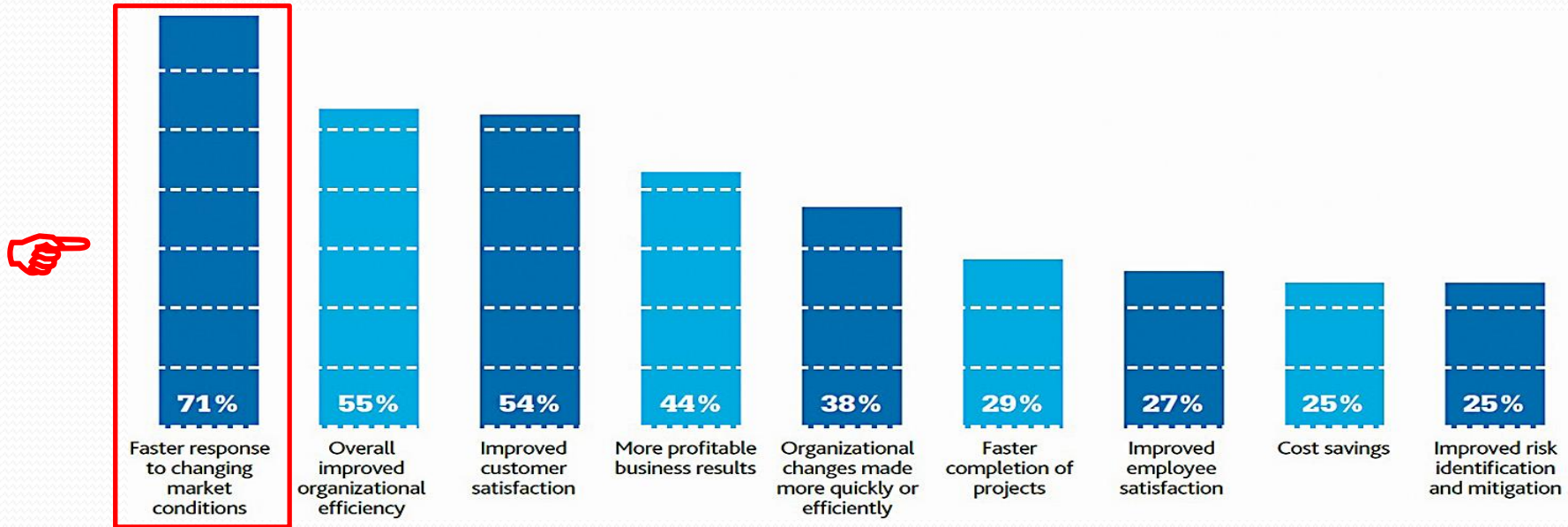


**Exponential Technology Change**

## THE SATIR CURVE



# Business Agility Justification



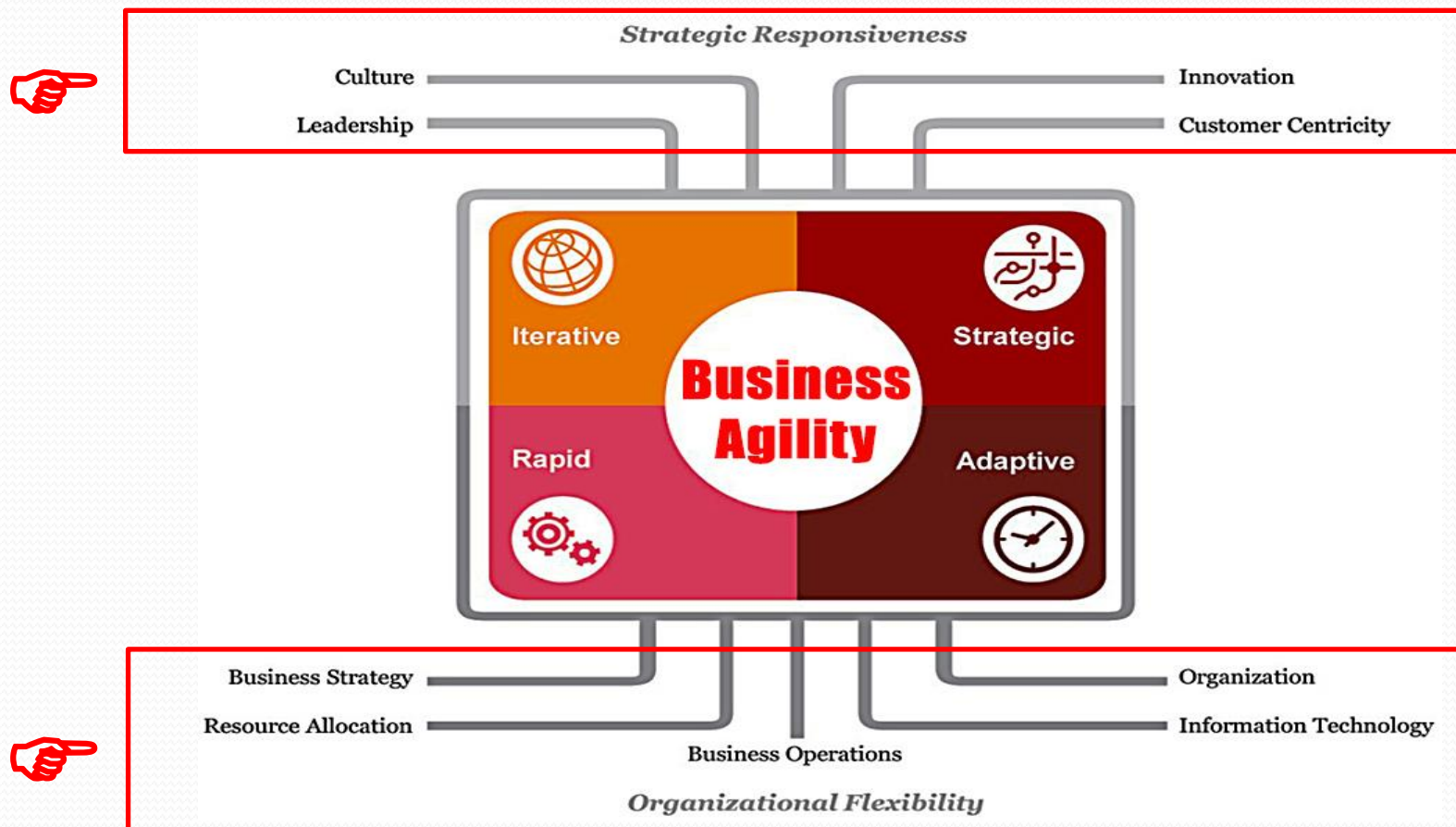


# What is **Agility**?

- **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*

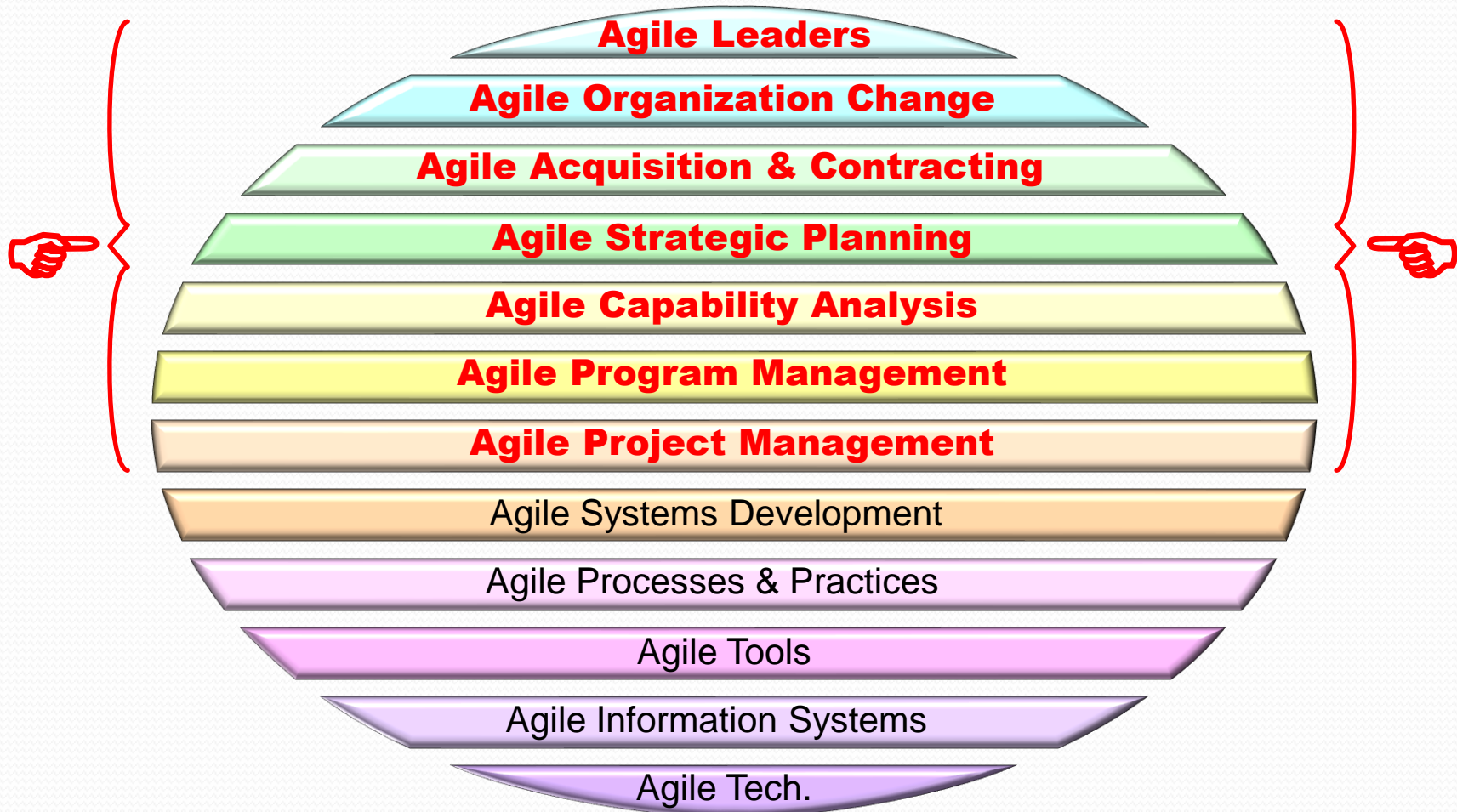
# What is **Business Agility**?

- **People-centric** way to create innovative solutions
- **Product-centric** alternative to big work-in-process
- ☞ □ **Market-centric** model to maximize business value

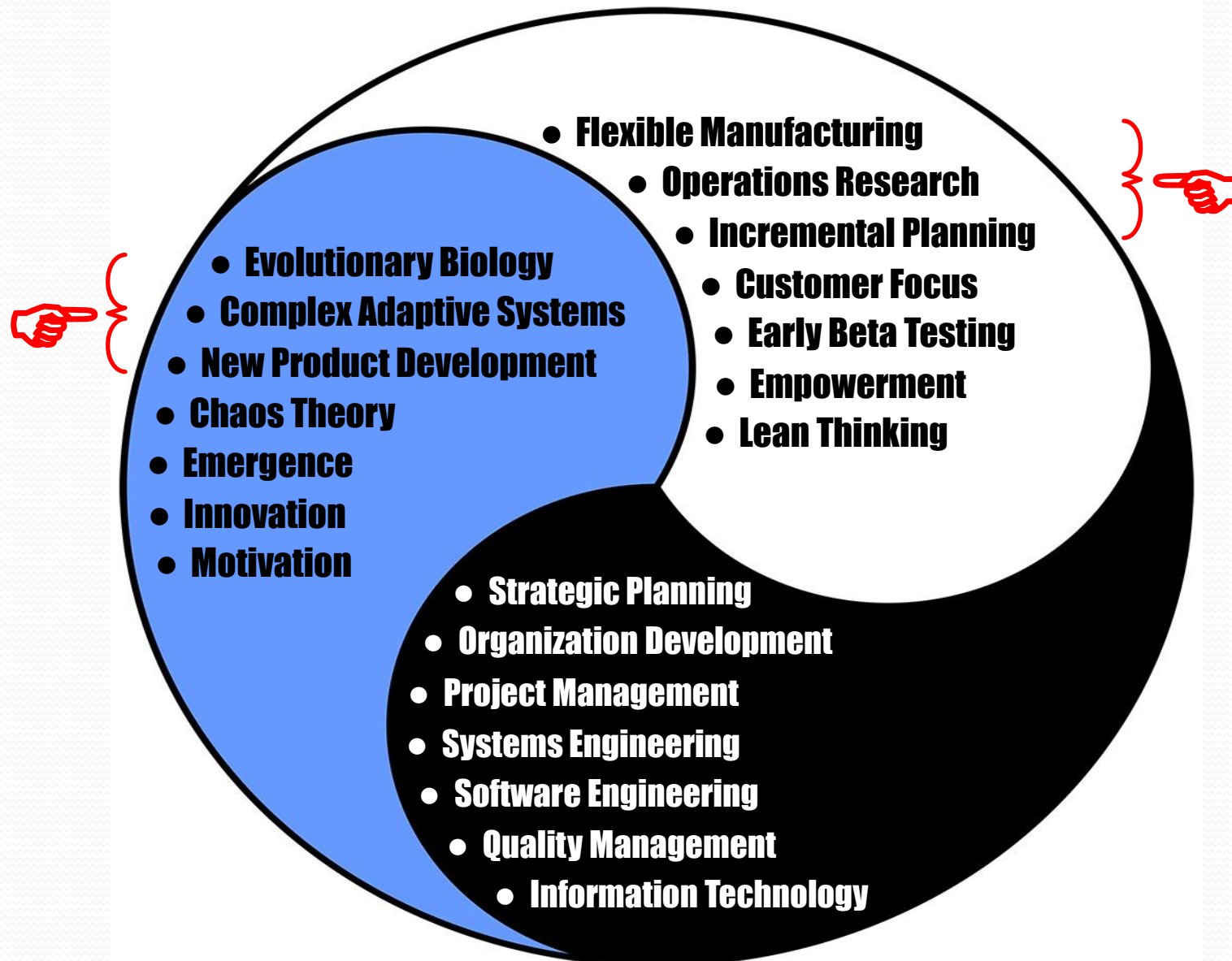


# Business Agility Dimensions

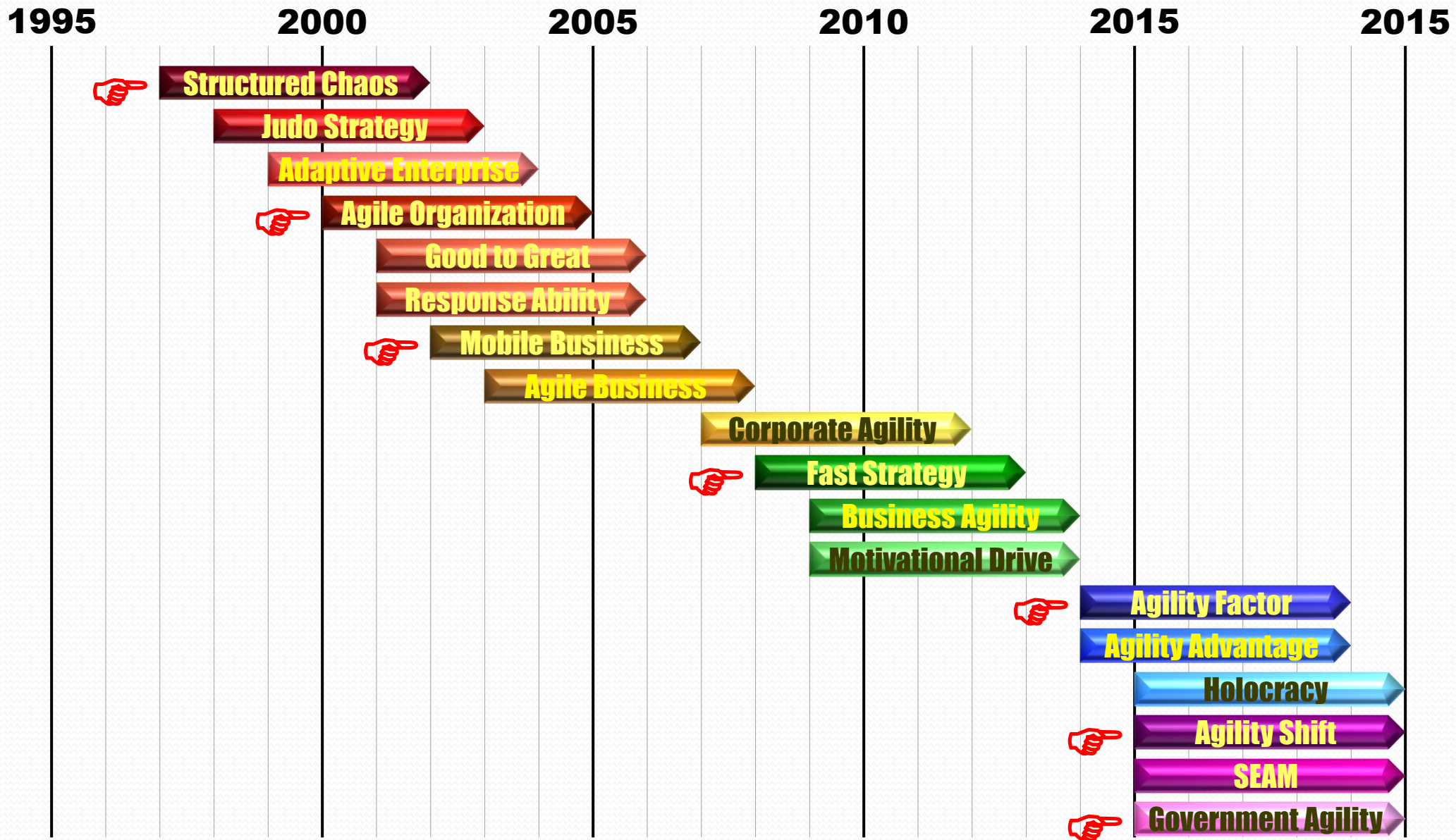
- “Agility” has many dimensions other than IT
- It ranges from leadership to technological agility
- ☞ □ Today’s focus is on organizational & enterprise agility










# Business Agility Antecedents





# Business Agility Timeline



# Business Agility Definitions

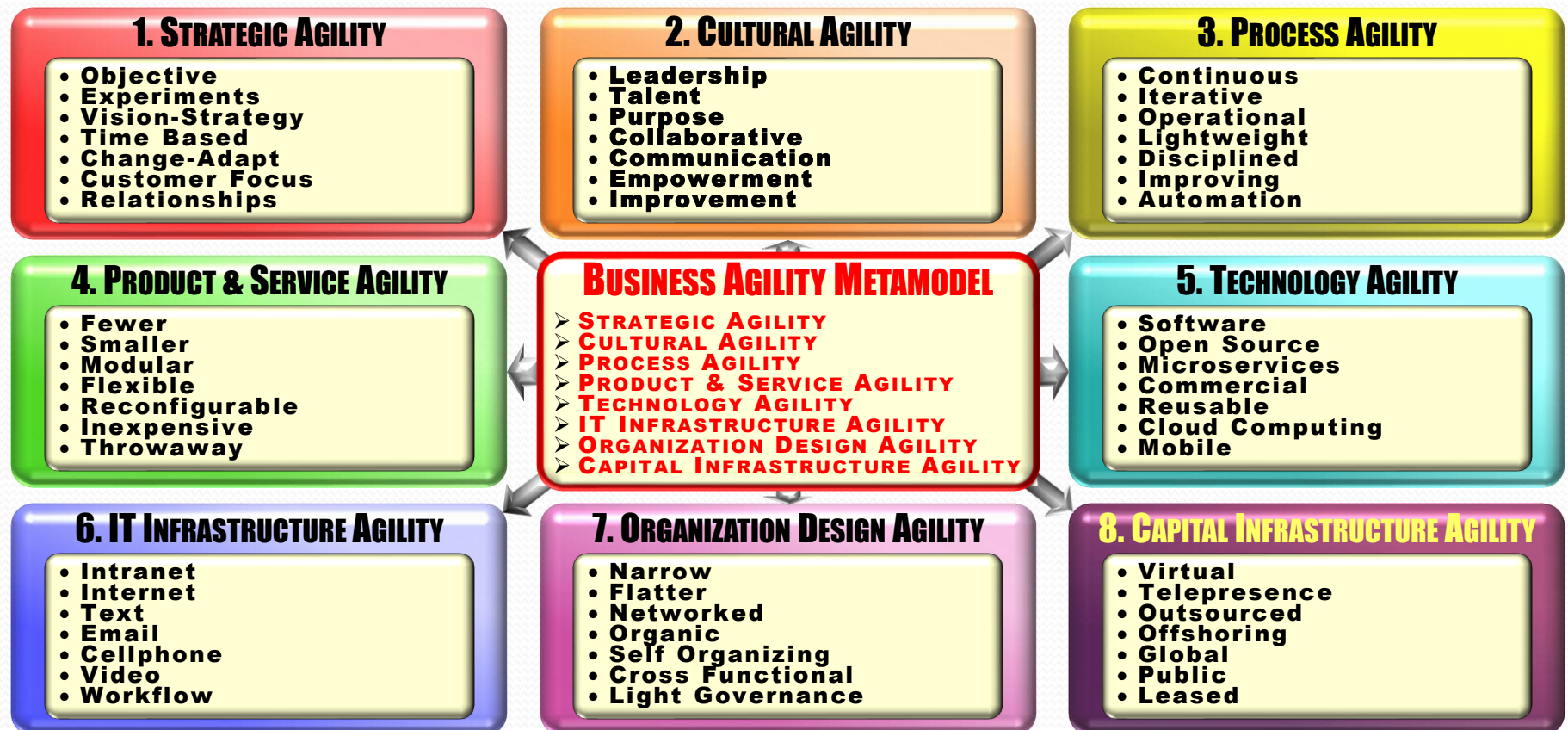
No	Year	Model	Author	Definition
 1	1997	<b>Structured Chaos</b>	Brown	<b>Reacting</b> responsibly to, <b>anticipating</b> , and dictating the pace of <b>change</b>
2	1998	Judo Strategy	Cusumano	Using <b>speed</b> and agility to mitigate effects of a company's <b>competitors</b>
3	1999	Adaptive Enterprise	Haeckel	Ability of large complex organization to systematically <b>adapt</b> to <b>change</b>
 4	2000	<b>Agile Organization</b>	Fulmer	<b>Sense making</b> for <b>success</b> by understanding <b>landscape</b> , <b>learning</b> , & <b>leading</b>
5	2001	Good to Great	Collins	Increasing <b>performance</b> standing by disciplined <b>thought</b> , <b>people</b> , and <b>action</b>
6	2001	Response Ability	Dove	<b>Intellectual</b> and <b>physical</b> ability to <b>act</b> upon <b>knowledge</b> for business <b>success</b>
 7	2002	<b>Mobile Business</b>	Evans	Confluence of business <b>processes</b> , <b>e-commerce</b> , and <b>wireless</b> communications
8	2003	Agile Business	McCarthy	Common ability to maintain a <b>steady</b> course in the face of economic <b>change</b>
9	2007	Corporate Agility	Grantham	Creating <b>new products</b> and <b>markets faster</b> than competitors by <b>reducing costs</b>
 10	2008	<b>Fast Strategy</b>	Dos	<b>Striking</b> with <b>strength</b> and <b>speed</b> through <b>strategy</b> , <b>commitment</b> , and <b>fluidity</b>
11	2009	Business Agility	Hugos	Ability to <b>respond</b> and <b>act quickly</b> to capitalize on <b>new opportunities</b>
12	2009	Motivational Drive	Pink	<b>Strategy</b> of <b>empowering</b> people with <b>autonomy</b> , <b>mastery</b> , and <b>purpose</b>
 13	2014	<b>Agility Factor</b>	Worley	Ability to make <b>timely</b> , <b>effective</b> , and <b>sustained</b> organizational <b>changes</b>
14	2014	Agility Advantage	Setili	<b>Seeing</b> and <b>responding</b> to market <b>changes capably</b> and <b>quickly</b> than others
15	2015	Holacracy	Robertson	Governance structure for <b>semi-autonomous teams</b> enabling rapid adaptation
 16	2015	<b>Agility Shift</b>	Meyer	Competence, capacity, and confidence to <b>learn</b> , <b>adapt</b> , and <b>innovate</b>
17	2015	SEAM	Worley	Ability to make timely, effective, and sustainable organizational <b>changes</b>
 18	2015	<b>Government Agility</b>	Rico	<b>Adapting</b> to <b>change</b> by reducing <b>scope</b> , <b>outsourcing</b> , and <b>collaboration</b>

# Business Agility Attributes

Category	Attribute	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
 Strategic Agility	Objective			✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	
	Experiments	✓	✓	✓	✓				✓					✓	✓		✓	✓	✓	
	Vision-Strategy		✓	✓			✓	✓		✓				✓	✓			✓	✓	
	Time Based	✓										✓						✓	✓	
	Change-Adapt	✓		✓	✓			✓		✓		✓			✓			✓	✓	
	Customer Focus				✓				✓							✓			✓	✓
 Cultural Agility	Relationships		✓					✓	✓			✓			✓		✓	✓	✓	
	Leadership				✓	✓					✓	✓				✓		✓	✓	
	Talent		✓		✓	✓			✓					✓	✓			✓	✓	
	Purpose			✓	✓	✓				✓			✓	✓	✓	✓	✓		✓	✓
	Collaborative				✓	✓								✓	✓	✓			✓	✓
	Communication				✓	✓			✓	✓	✓	✓		✓	✓			✓	✓	✓
Process Agility	Empowerment				✓	✓	✓		✓	✓	✓			✓	✓				✓	✓
	Improvement											✓	✓	✓	✓			✓	✓	✓
	Continuous																			✓
	Iterative	✓	✓	✓					✓	✓					✓	✓				✓
	Operational	✓	✓	✓					✓	✓					✓	✓				✓
	Lightweight																			✓
Product & Service Agility	Disciplined								✓											✓
	Improving		✓	✓					✓	✓				✓	✓					✓
	Automation		✓																	✓
	Fewer						✓	✓												✓
	Smaller						✓	✓												✓
	Modular		✓				✓	✓												✓
Technology Agility	Flexible		✓				✓	✓												✓
	Reconfigurable		✓				✓	✓												✓
	Inexpensive						✓	✓												✓
	Throwaway						✓	✓												✓
	Software					✓		✓												✓
	Open Source					✓		✓												✓
IT Infrastructure Agility	Microservices					✓		✓												✓
	Commercial					✓		✓												✓
	Reusable					✓		✓												✓
	Cloud Computing					✓		✓												✓
	Mobile					✓		✓												✓
	Intranet			✓		✓		✓			✓							✓		✓
Organization Design Agility	Internet			✓		✓		✓			✓							✓		✓
	Text			✓		✓		✓			✓							✓		✓
	Email			✓		✓		✓			✓							✓		✓
	Cellphone			✓		✓		✓			✓							✓		✓
	Video			✓		✓		✓			✓							✓		✓
	Workflow			✓		✓		✓			✓							✓		✓
Capital Infrastructure Agility	Narrow		✓												✓	✓				✓
	Flatter														✓	✓				✓
	Networked											✓				✓	✓			✓
	Organic	✓															✓	✓		✓
	Self Organizing						✓										✓	✓		✓
	Cross Functional			✓											✓	✓				✓
Capital Infrastructure Agility	Light Governance	✓		✓		✓	✓				✓					✓			✓	✓
	Virtual						✓			✓	✓									✓
	Telepresence						✓			✓	✓									✓
	Outsourced						✓			✓	✓									✓
	Offshoring						✓			✓	✓									✓
	Global						✓			✓	✓									✓
Capital Infrastructure Agility	Public						✓			✓	✓									✓
	Leased						✓			✓	✓									✓

# Business Agility Metamodel

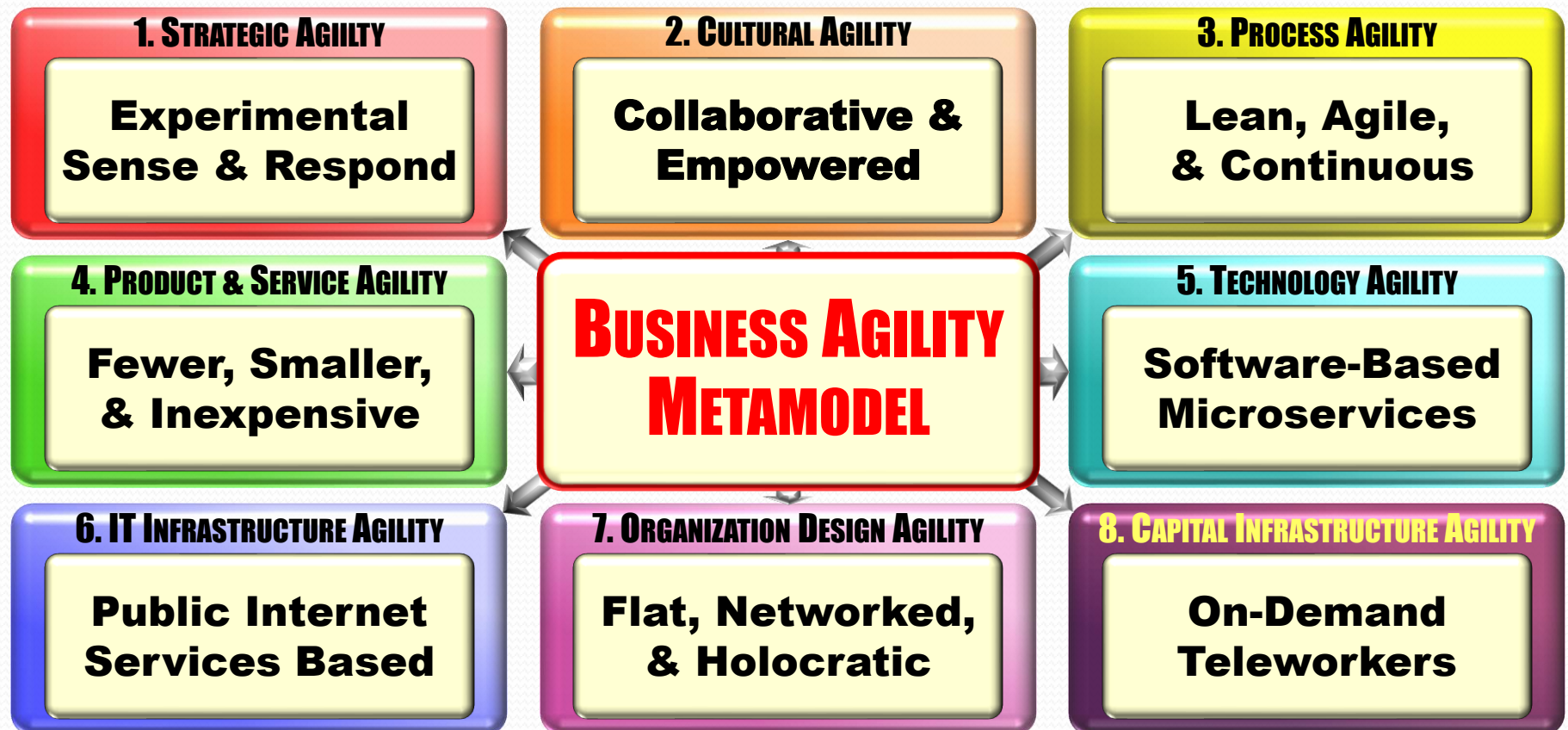
- ❑ Created by Dave Rico in 2015-16
- ❑ Metamodel analysis of 18 major approaches
- ☞ ❑ Product, technology, & infrastructure major themes





# Business Agility Metamodel Recap

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



# Business Agility Metamodel Kiviat

## 8. Capital Infrastructure Agility

## 1. Strategic Agility

## 7. Organization Design Agility

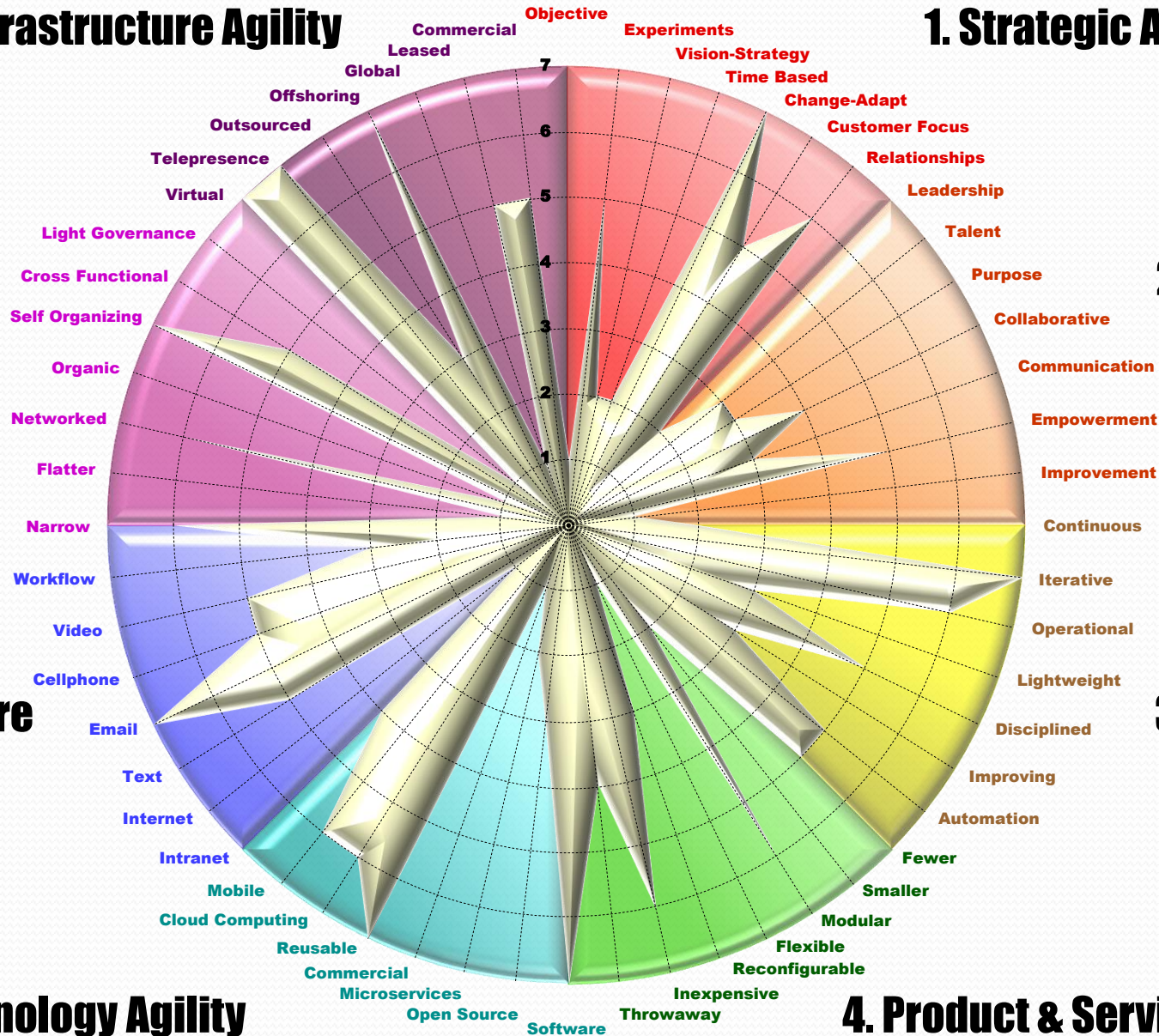
## 2. Cultural Agility

## 6. IT Infrastructure Agility

## 3. Process Agility

## 5. Technology Agility

## 4. Product & Service Agility



# Business Agility Case Studies

- ❑ Virtual enterprises have reached tipping point
- ❑ Many U.S. civilian agencies use virtual workforce
- ☞ ❑ Online, large, & have a very small capital footprint

Open Source Software	Univ. of Maryland Univ. College
<ul style="list-style-type: none"> <li>• <b>95% of IT firms use open source tools</b></li> <li>• <b>Over 10 million open source projects</b></li> <li>• <b>At least 10 million contributors to open source</b></li> <li>• <b>Most contributors don't have full-time day jobs</b></li> <li>• <b>Most contributors work from home without pay</b></li> <li>• <b>~ 100 billion lines of software source code</b></li> <li>• 50% are "live" projects with active commits</li> <li>• Live projects average 6.5 million lines of code</li> <li>• 50% of Projects are Java, C, and C++</li> <li>• Dozens of open source repositories worldwide</li> <li>• Most repositories offer static source code analysis</li> <li>• Automatic code security analysis typically done</li> <li>• Development process follows lean-agile paradigm</li> <li>• <b>Surpasses commercial code quality</b></li> <li>• <b>Commercial code has more severe defects</b></li> <li>• <b>Linux is benchmark for open source quality</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Open, Affordable, Quality Education</b></li> <li>• <b>One of 11 major schools in USM</b></li> <li>• <b>82,555 Total Students</b></li> <li>• <b>248,104 Course Enrollments</b></li> <li>• <b>31,378 Full-Time Students</b> (38,140 UMCP)</li> <li>• <b>11,550 Annual Degrees Granted</b> (9,700 UMCP)</li> <li>• 237,343 Degrees Since 1948</li> <li>• Offers more than 90 types of degrees</li> <li>• <b>45% of Students are Minorities</b> (11% UMCP)</li> <li>• <b>28% of Degrees go to Minorities</b></li> <li>• <b>75% of Students Work Full-Time</b></li> <li>• <b>54% of Students Have Children</b></li> <li>• <b>63% of Students Active Duty Military</b></li> <li>• 140 Worldwide Locations on Four Continents</li> <li>• <b>535,480 Square Feet</b> (13.5m UMCP)</li> <li>• <b>MTCO2e/Student &lt; 0.72</b> (6.5 UMCP)</li> </ul>

# Business Agility Performance

**76** vs **38**  
Percent Percent

High performers have twice as many successful strategic initiatives vs. low performers

**31** vs **9**  
Percent Percent

High performers are three times as likely to have high organizational agility

**57** vs **28**  
Percent Percent

High performers are twice as likely to have high alignment of projects to organizational strategy

## Three Strategic Focuses That Drive Organizational Success

### PEOPLE



#### Managing Talent and Change

High performers achieve significantly more successful strategic initiatives by effectively managing their project management talent. Furthermore, they demonstrate successful organizational change management, which is more effective with actively engaged sponsors.

**2** times

Twice as many high performers have actively engaged sponsors compared to low performers.

### PROCESSES



#### Project, Program and Portfolio Management Maturity

High-performing organizations fully understand the value of project management, have a project management office (PMO) and use standardized project management practices throughout the organization.

**4** times

Four times more high performers have project, program and portfolio management that is highly mature compared to low performers.

### OUTCOMES



#### Benefits Realization

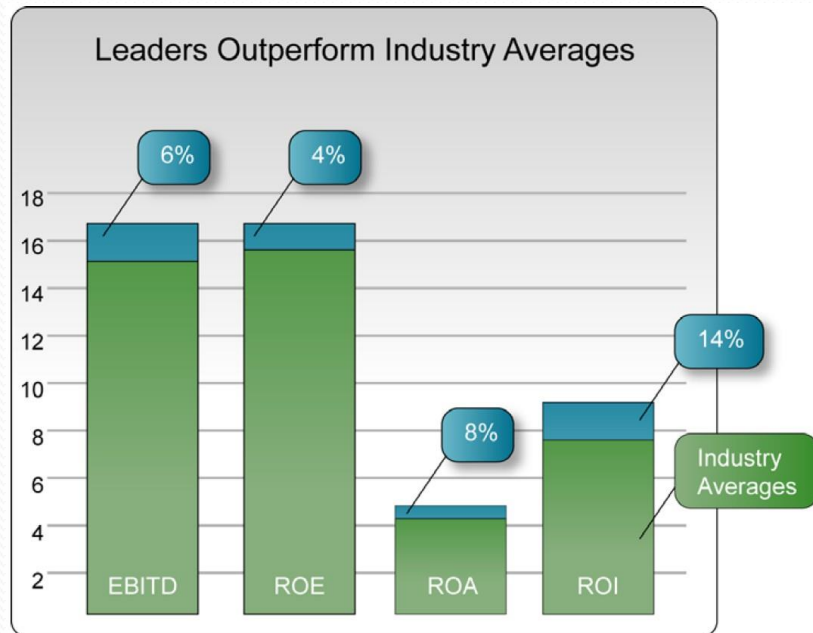
Organizations need to focus on effectively establishing, measuring and communicating the intended benefits of projects and programs.

**5** times

Five times more high-performing organizations have highly mature benefits realization compared to low-performing organizations.

# Business Agility Benefits I

- 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%



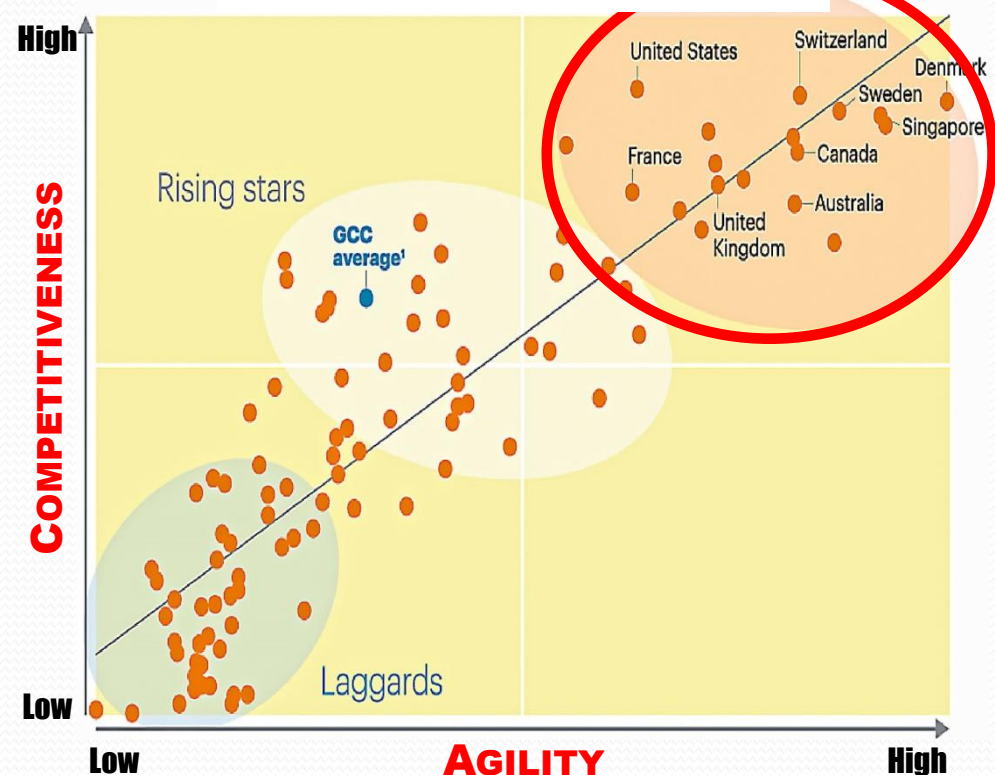
# Business Agility—National Level

- 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



## GOVERNMENT COMPETITIVENESS



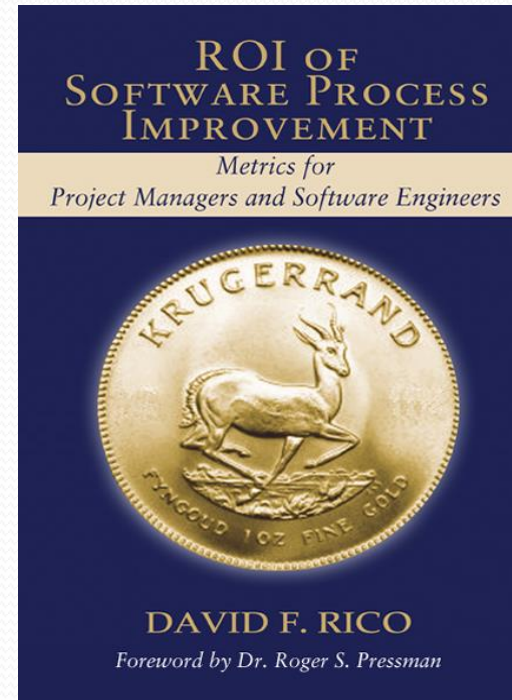
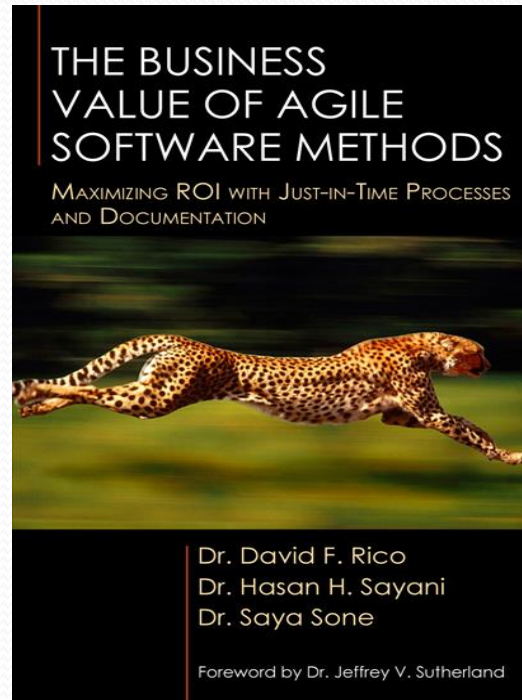
# BUSINESS AGILITY Summary

- ❑ Early approaches focused on strategy & culture
- ❑ Hard to make big administrative bureaucracy agile
- ☞ ❑ Need to focus on products, org. structure, & facilities

- ☞ ✓ *Agility isn't just for [software] coding cowboys*
- ✓ *[Business] agility has been around for a long time*
- ✓ *Agility is rooted in a lot of rich theoretical traditions*
- ☞ ✓ *Lean and agile paradigms are at root of business agility*
- ☞ ✓ *Business agility is **NOT** a means of putting lipstick on a pig*
- ☞ ✓ *The **KEY** to agility is to make the **ENTIRE** organization agile*
- ✓ *Applies to strategy, culture, products, technologies, & facilities*
- ☞ ✓ *True business agility is by competing with **software** vs. hardware*

# Business Agility—Related Books

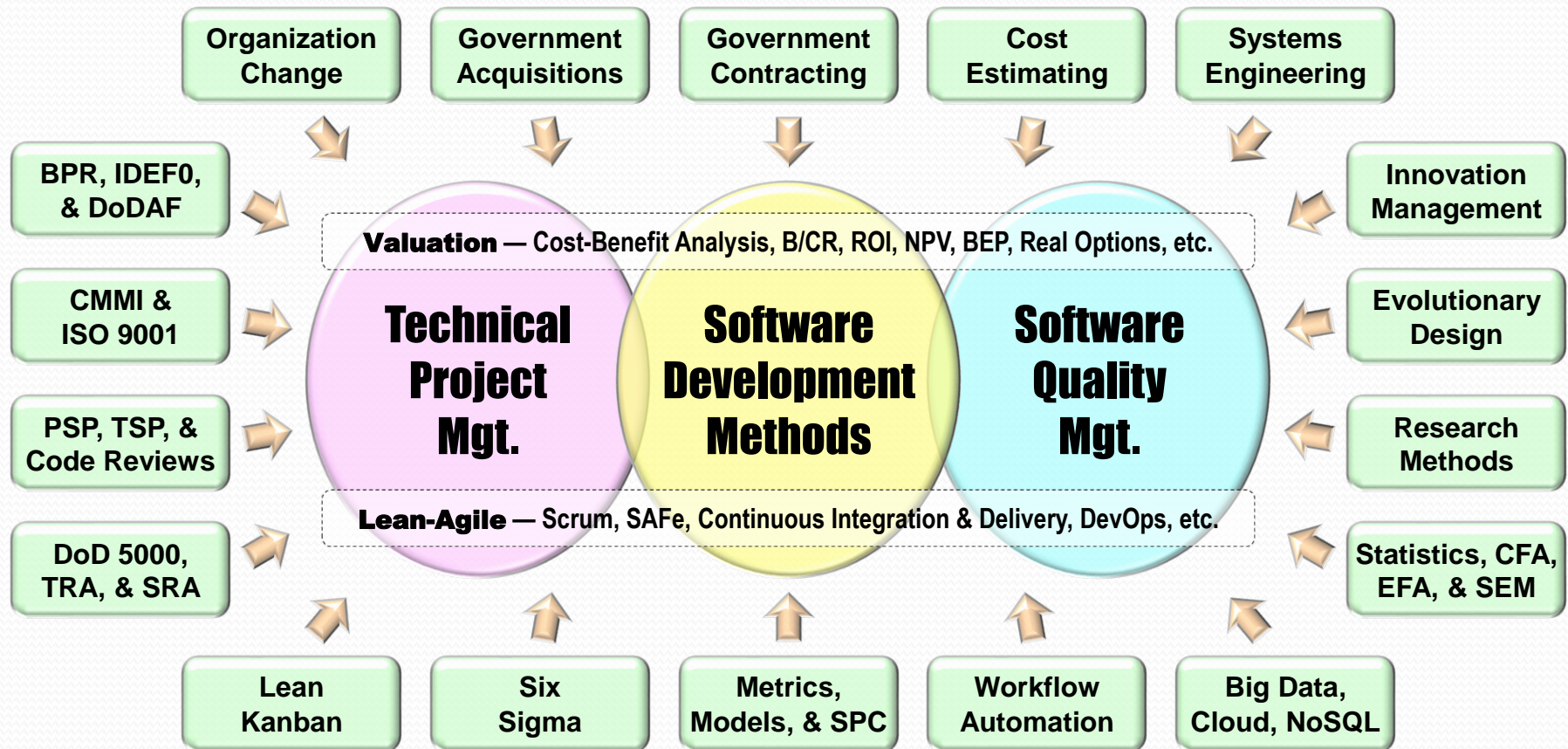
- Guides to software methods for business leaders
- Communicates the business value of IT approaches
- ☞ □ Rosetta stones to unlocking ROI of software methods



- <http://davidfrico.com/agile-book.htm> (*Description*)
- <http://davidfrico.com/roi-book.htm> (*Description*)



# Dave's PROFESSIONAL CAPABILITIES



**STRENGTHS** – Data Mining • Gathering & Reporting Performance Data • Strategic Planning • Executive & Management Briefs • Brownbags & Webinars • White Papers • Tiger-Teams • Short-Fuse Tasking • Audits & Reviews • Etc.



- **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.



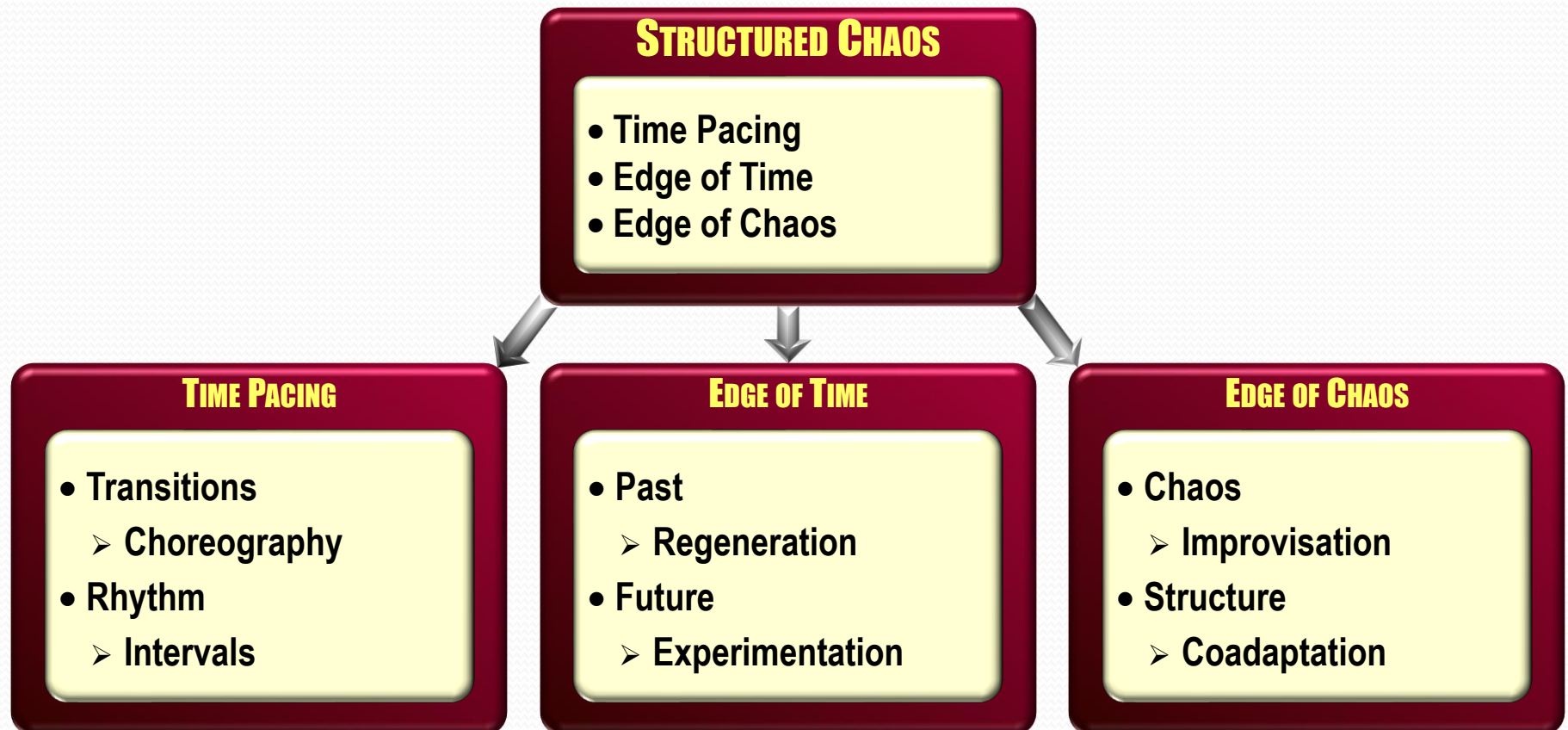
# Backup Slides

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**18 Business Agility Patterns,  
Models, & Other Alternatives**

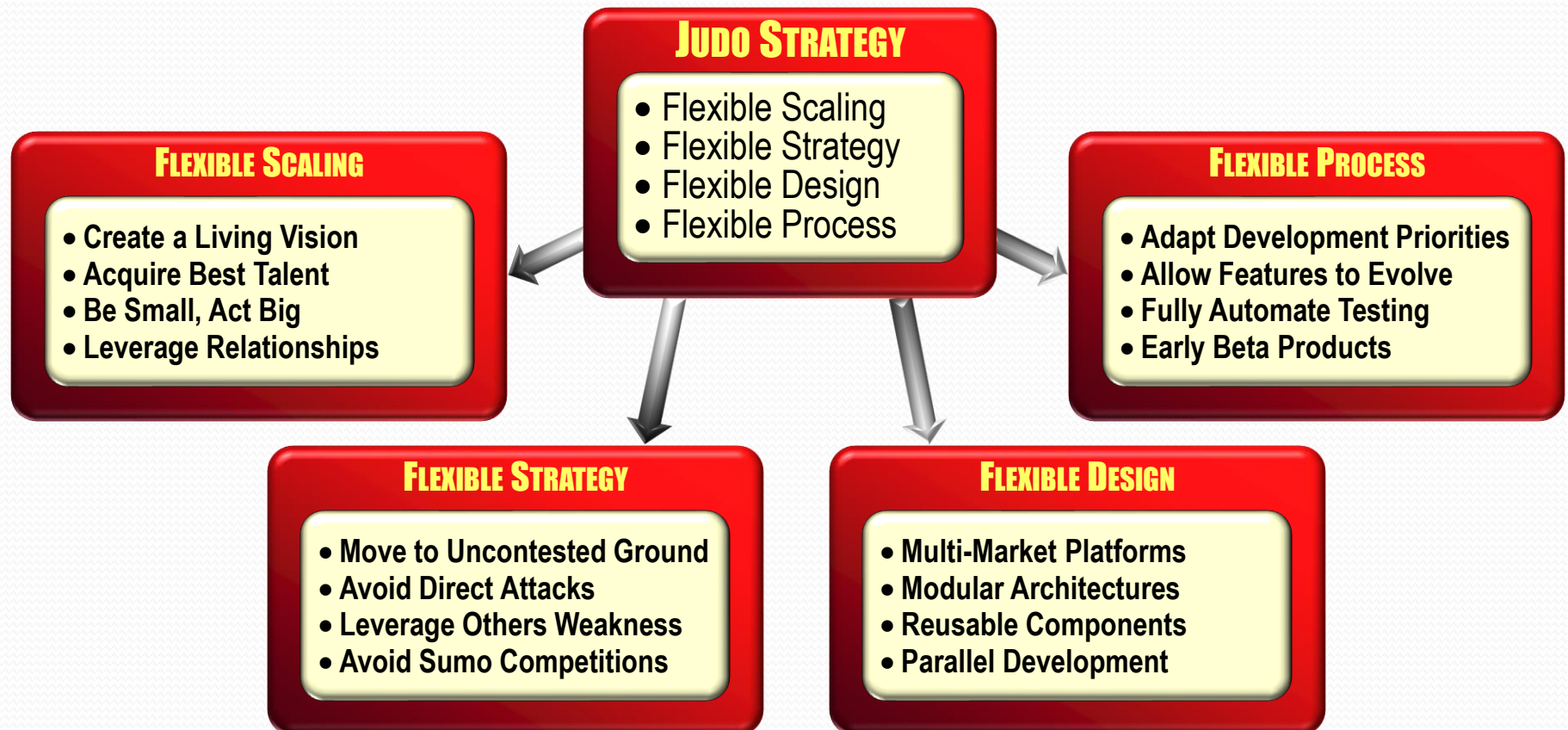
# 1. Structured Chaos

- Created by Brown et al. in 1998
- Inspired by chaos & complex adaptive sys.
- ☞ □ Time-based, portfolio, & collaboration major themes



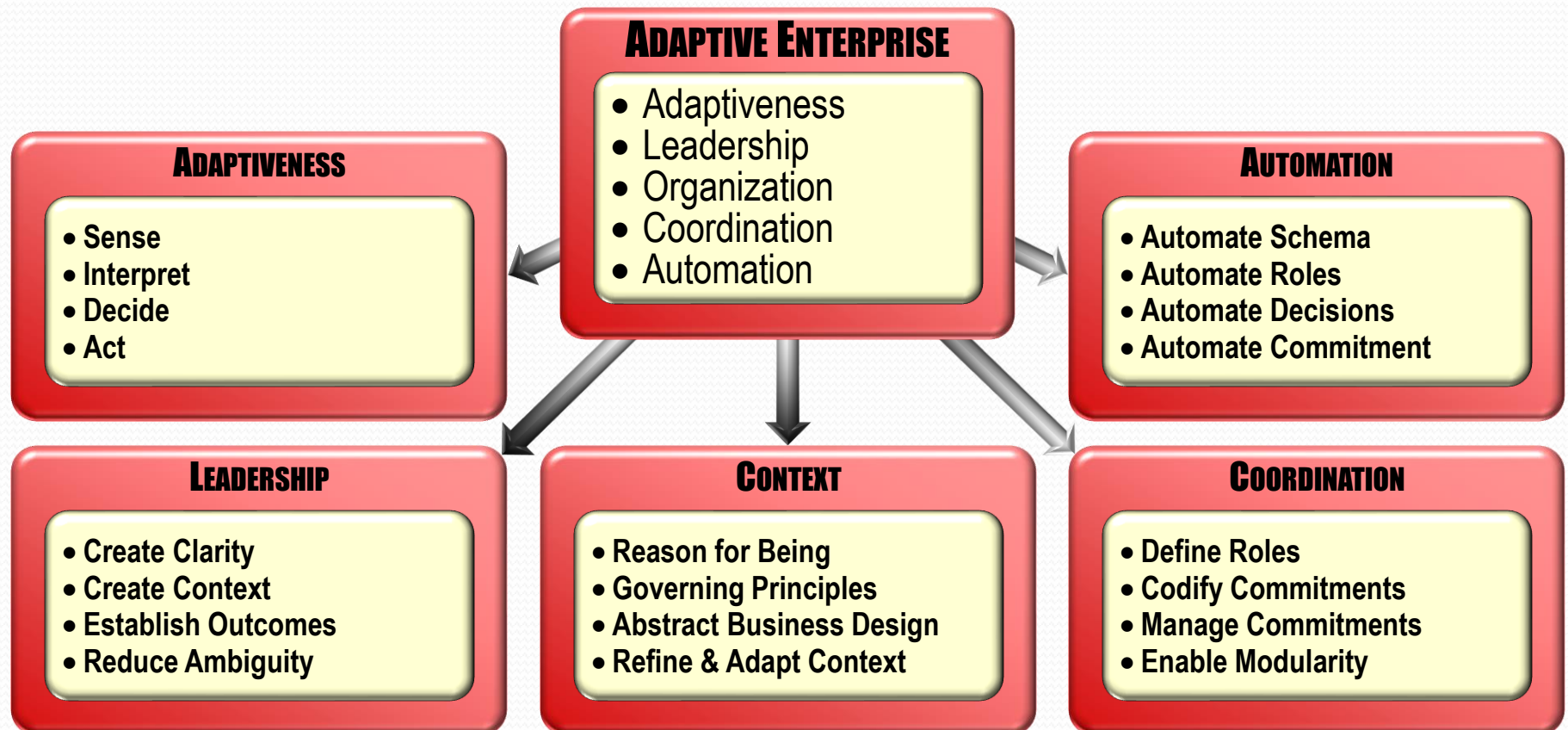
# 2. Judo Strategy

- Created by Mike Cusumano et al. in 1998
- Inspired by Silicon Valley Internet/Web firms
- ☞ □ Planning, testing, & implementing major themes



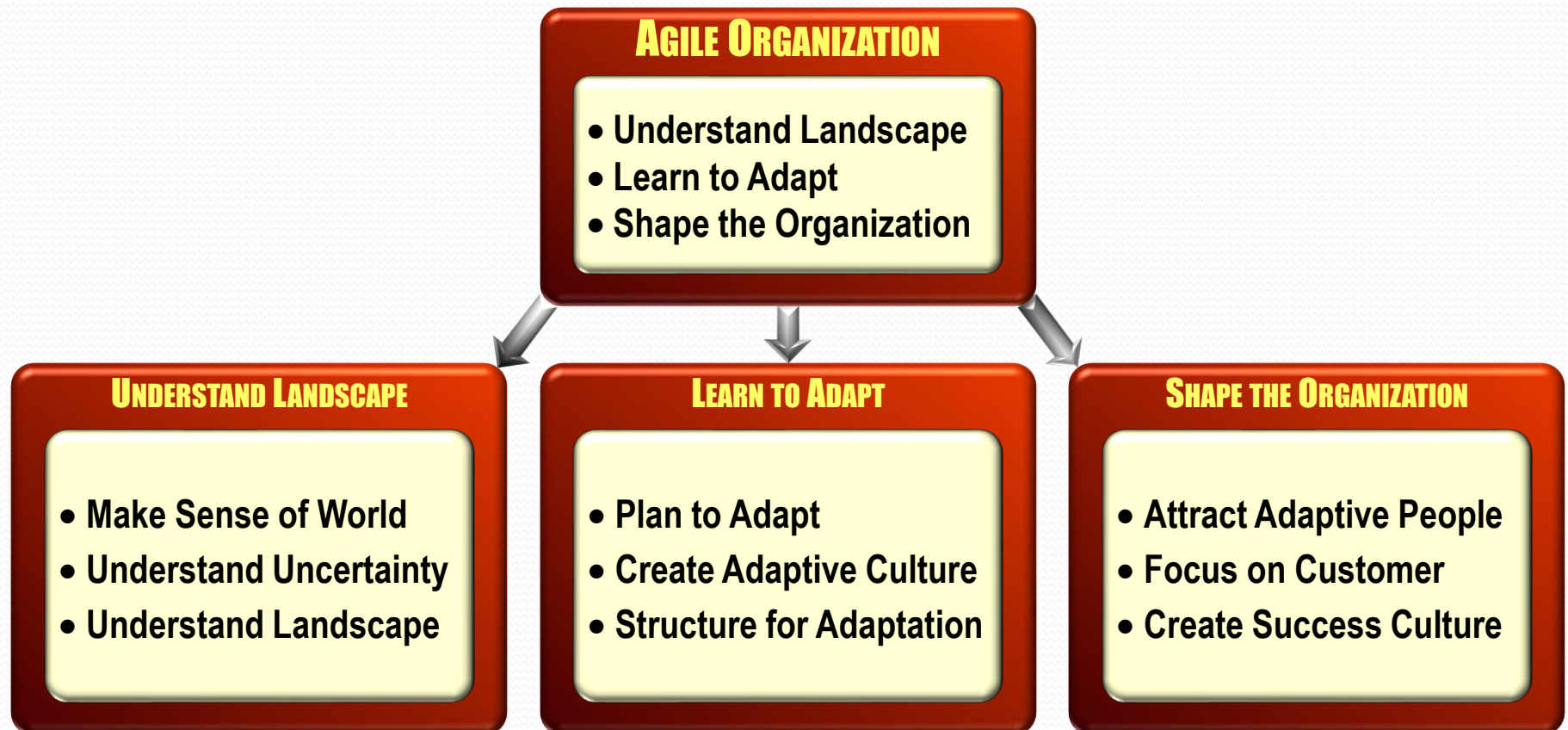
# 3. Adaptive Enterprise

- Created by Stephan Haeckel in 1999
- Inspired by complex adaptive systems theory
- ☞ □ Leaders, governance, & coordination major themes



# 4. Agile Organization

- Created by William Fulmer in 2000
- Inspired by chaos & complex adaptive sys.
- ☞ □ Marketing, adaptation, & culture major themes



# 5. Good to Great

- ❑ Created by Jim Collins in 2001
- ❑ Study of late 20th century Fortune 500 firms
- ❑ Servant leaders, talent, & objectivity major themes

## DISCIPLINED PEOPLE

### LEVEL 5 LEADERSHIP

- Ambition for Company
- Compelling Modesty
- Unwavering Resolve
- Give Credit to Others

### FIRST WHO, THEN WHAT

- Deep Strong Teams
- Who You Pay Not How
- Rigorous Not Ruthless
- First Who, Firm, & Life

## DISCIPLINED THOUGHT

### CONFRONT BRUTAL FACTS

- Facts vs Dreams
- Climate of Truth
- Unwavering Faith
- Confidence & Realism

### HEDGEHOG CONCEPT

- Understand Strength
- Understand Economics
- Understand Passion
- Understand Bravado

## DISCIPLINED ACTION

### CULTURE OF DISCIPLINE

- Free But Responsible
- Culture Not a Tyrant
- Adhere to Hedgehog
- Start a Stopdoing List

### DISCIPLINE ACCELERATORS

- Tech Induced Change
- Tech Acceleration
- Tech Moderation
- Tech Mastery

# 6. Response Ability

- Created by Rick Dove in 2001
- Inspired by lean firms from the early 1990s
- ☞ □ Change, flexibility, & improvement major themes

## CHANGE PROFICIENCY

### FRAMEWORKS FOR CHANGE

- Change Proficiency
- Quality of Change
- Categorizing Change
- Proactive Dynamics
- Reactive Dynamics
- Language of Change

### RESPONSE SITUATION ANALYSIS

- Define Problems
- Identify Opportunities
- Establish Requirements
- Collaboration
- Analyze Process
- Validate Process

## ADAPTABLE STRUCTURE

### ENABLING RESPONSE ABILITY

- Deferred Commitment
- Distributed Control
- Elastic Capacity
- Redundancy & Diversity
- Self Organization
- Evolving Standards

### RESPONSIVE SYSTEMS

- Self Organized Dynamic
- Response Able Product
- Response Able Process
- Response Able Practice
- Response Able People
- Just in Time Systems

## KNOWLEDGE & CULTURE

### WAKING UP THE ENTERPRISE

- Strategic Planning
- Business Justification
- Organization Relations
- Innovation Management
- Knowledge Management
- Performance Metrics

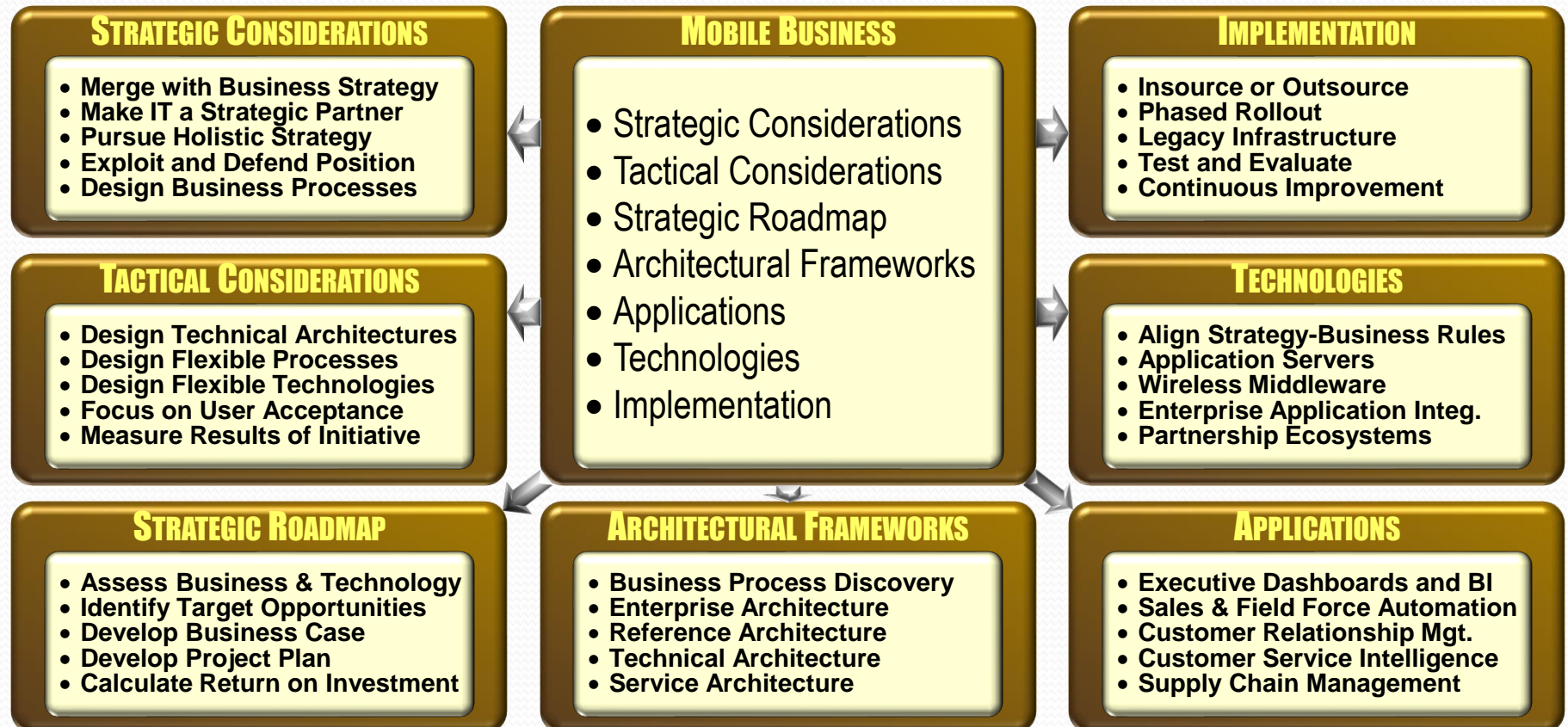
### MANAGING THE ENTERPRISE

- Organizational Learning
- Communities of Practice
- Collaborative Learning
- Insightful People
- Workshops & Metaphors
- Portfolio Management



# 7. Mobile Business

- ❑ Created by Nicholas Evans in 2002
- ❑ Inspired by wireless mobile communications
- ❑ Process, e-business, & wireless tech. major themes



# 8. Agile Business

- ❑ Created by Pat McCarthy et al. in 2003
- ❑ Inspired by strategic and operational agility
- ❑ Value, alignment, & operations major themes

## STRATEGIC AGILITY

- Revenue & Profit Focus
- Understand Central Priorities
- Assess & Report on Value
- Transparent Communication
- Organizational Alignment
- Frequent Test & Measurement
- High Performance Culture
- Shared Decision Making
- Rapidly Adapt to Change

## OPERATIONAL AGILITY

- Critical Thinking & Questions
- Value & Profit Focus
- Adapt Quickly to Change
- Flexible Integrated Processes
- Lean & Disciplined
- Reflective vs. Reflexive
- Trust & Relationships
- Passionate Improvement
- Measure & Learn from Results

# 9. Corporate Agility

- Created by Charles Grantham et al. in 2007
- Inspired by global outsourcing and offshoring
- ☞ □ Expense, talent, & virtualization major themes



# 10. Fast Strategy

- ❑ Created by Yves Dos & Mikko Kosonen in 2008
- ❑ Inspired by four+ decades of strategy research
- ❑ Sensing, decisions, & adaptation major themes

## SHARPEN STRATEGIC SENSITIVITY

### RAPID STRATEGY

- Strategic Foresight
- Strategic Insight
- Simple Rules

### MAKING SENSE VS. SENSING

- External Knowledge
- Utilize Experimentation
- Holistically Involve All
- Know Where You Stand
- Provoke Thinking
- High-Quality Dialogue

## BUILD COLLECTIVE COMMITMENT

### RAPID COMMITMENT

- Difficult Decisions
- Captains vs. Architects
- Barons vs. Courtiers

### UNIFIED TOP TEAM DECISIONS

- Mutual Dependency
- Work Together
- Conflict Management
- Change the Top Team
- Align Leadership Style
- Executive Capabilities

## KNOWLEDGE & CULTURE

### RAPID ADAPTATION

- Imprisoned Resources
- Identifying Resources
- Prioritize Modularity

### DIRECTION VS. STRUCTURE

- Mobilize Resources
- Foster People Mobility
- Reduce Business Risk
- Reduce Entry-Exit Risk
- Access Resources
- Grow Resources

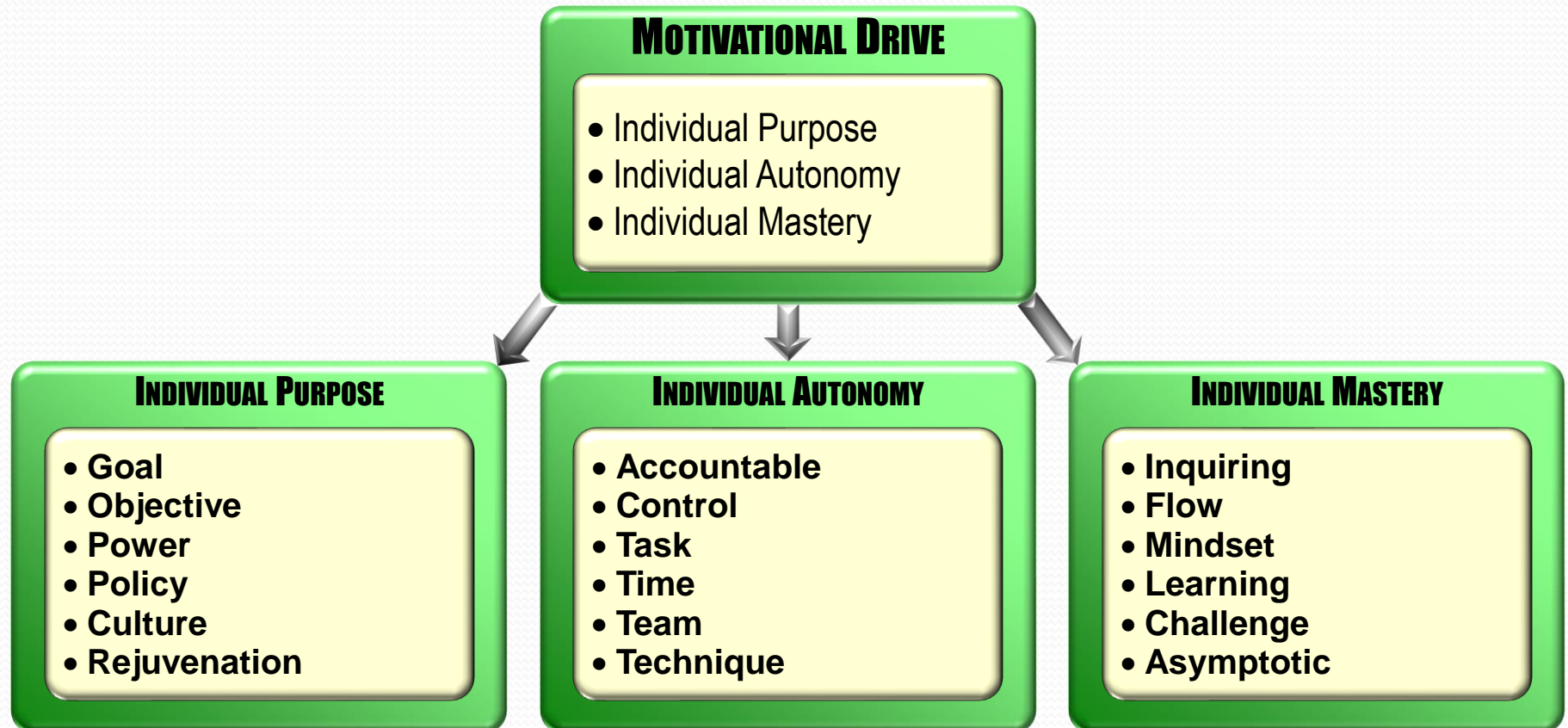
# 11. Business Agility

- Created by Michael Hugos in 2009
- Inspired by micro-marketing segmentation
- ☞ □ Teams, marketing, & improvement major themes



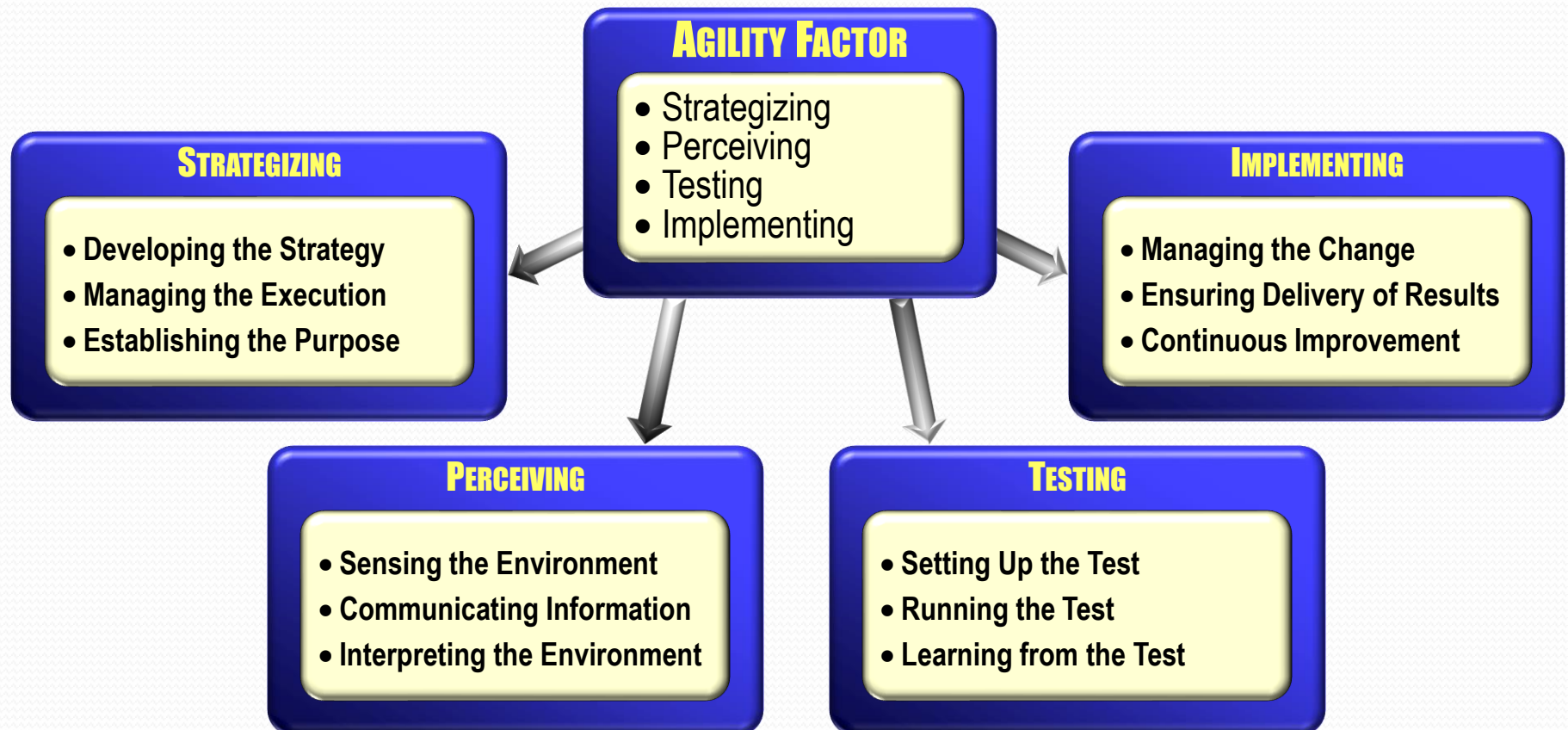
# 12. Motivational Drive

- Created by Dan Pink in 2009
- Inspired by field of motivation research
- ☞ □ Purpose, autonomy, & mastery major themes



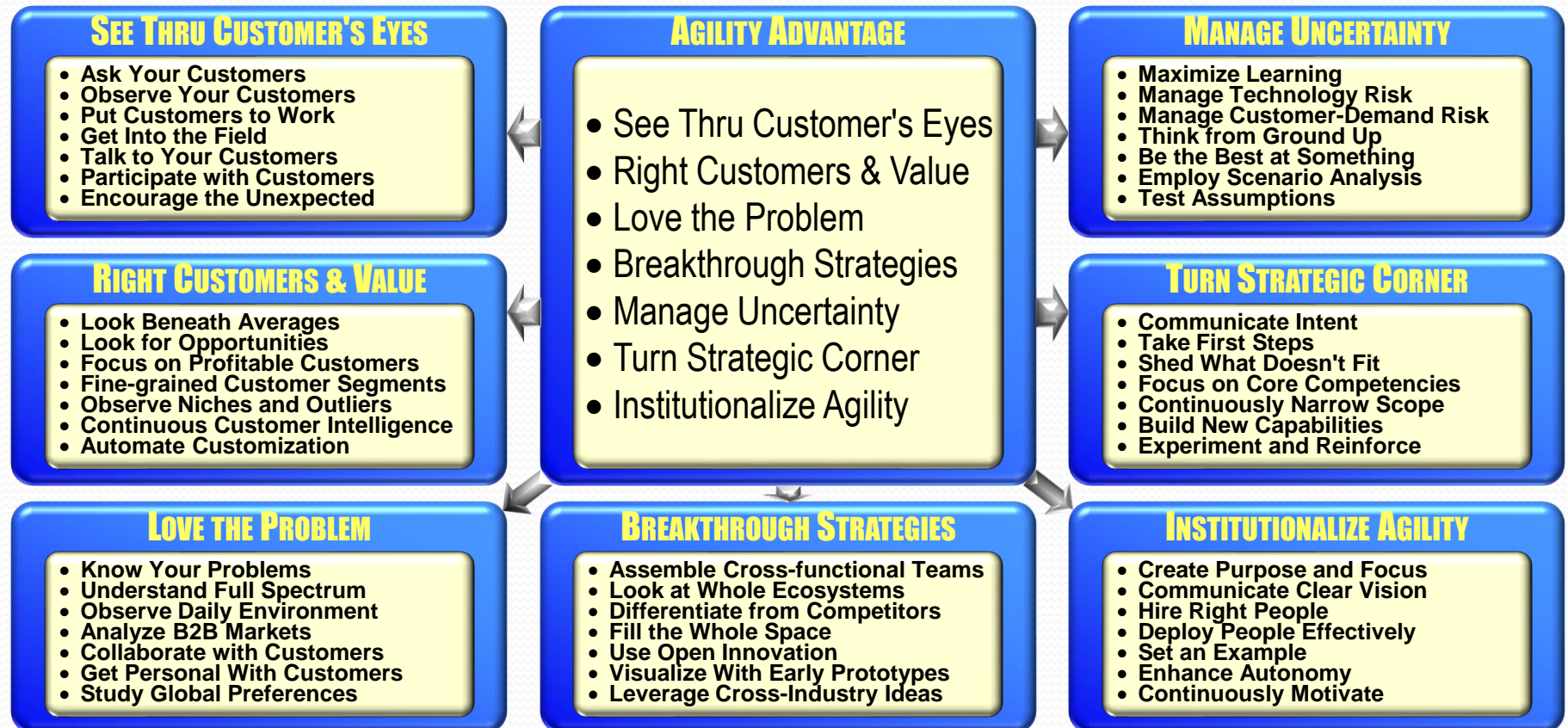
# 13. Agility Factor

- Created by Chris Worley et al. in 2014
- Inspired by PDCA cycle at organization level
- ☞ □ Planning, testing, & implementing major themes



# 14. Agility Advantage

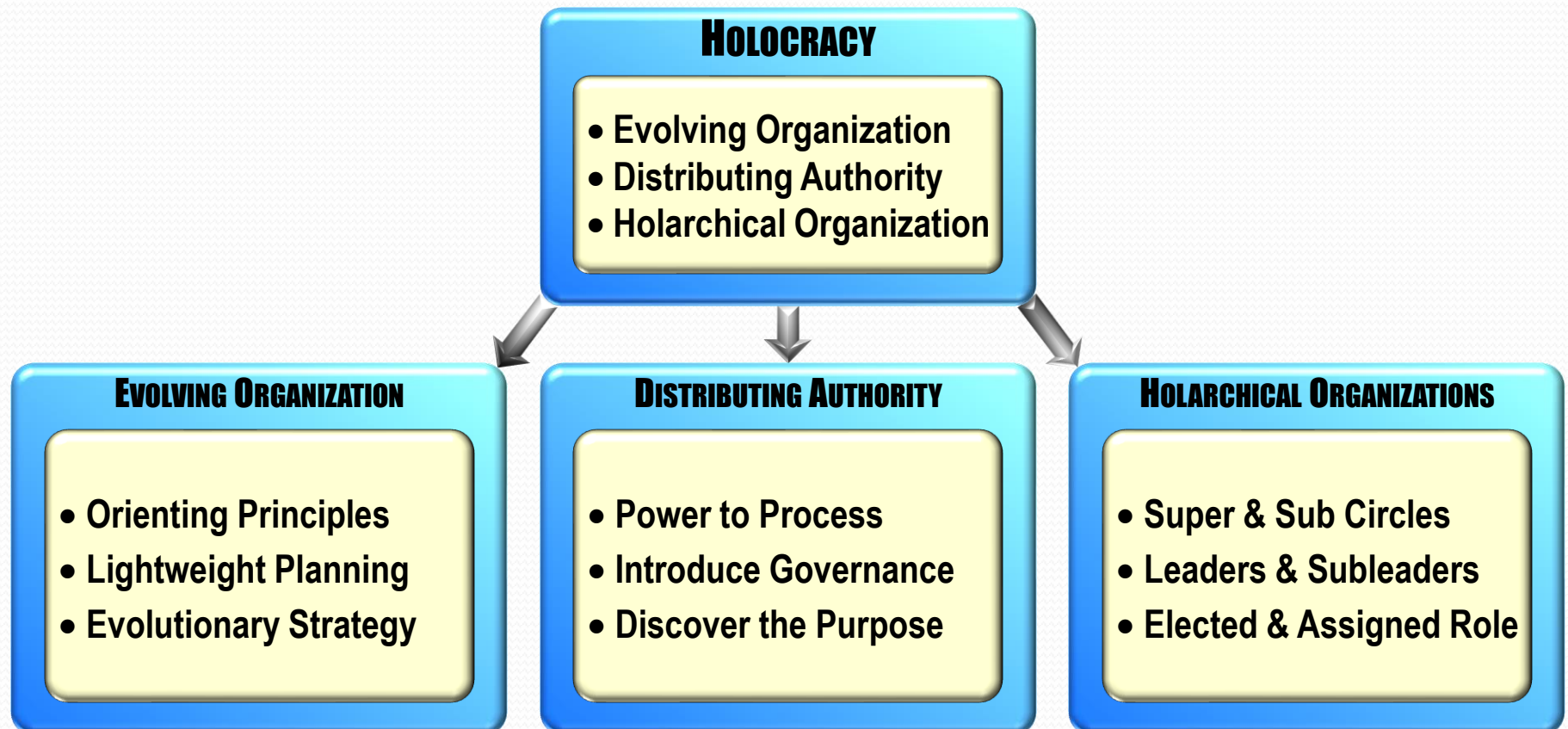
- ❑ Created by Amanda Setili in 2014
- ❑ Inspired by Customer Active Paradigm
- ❑ Market, alignment, & execution major themes





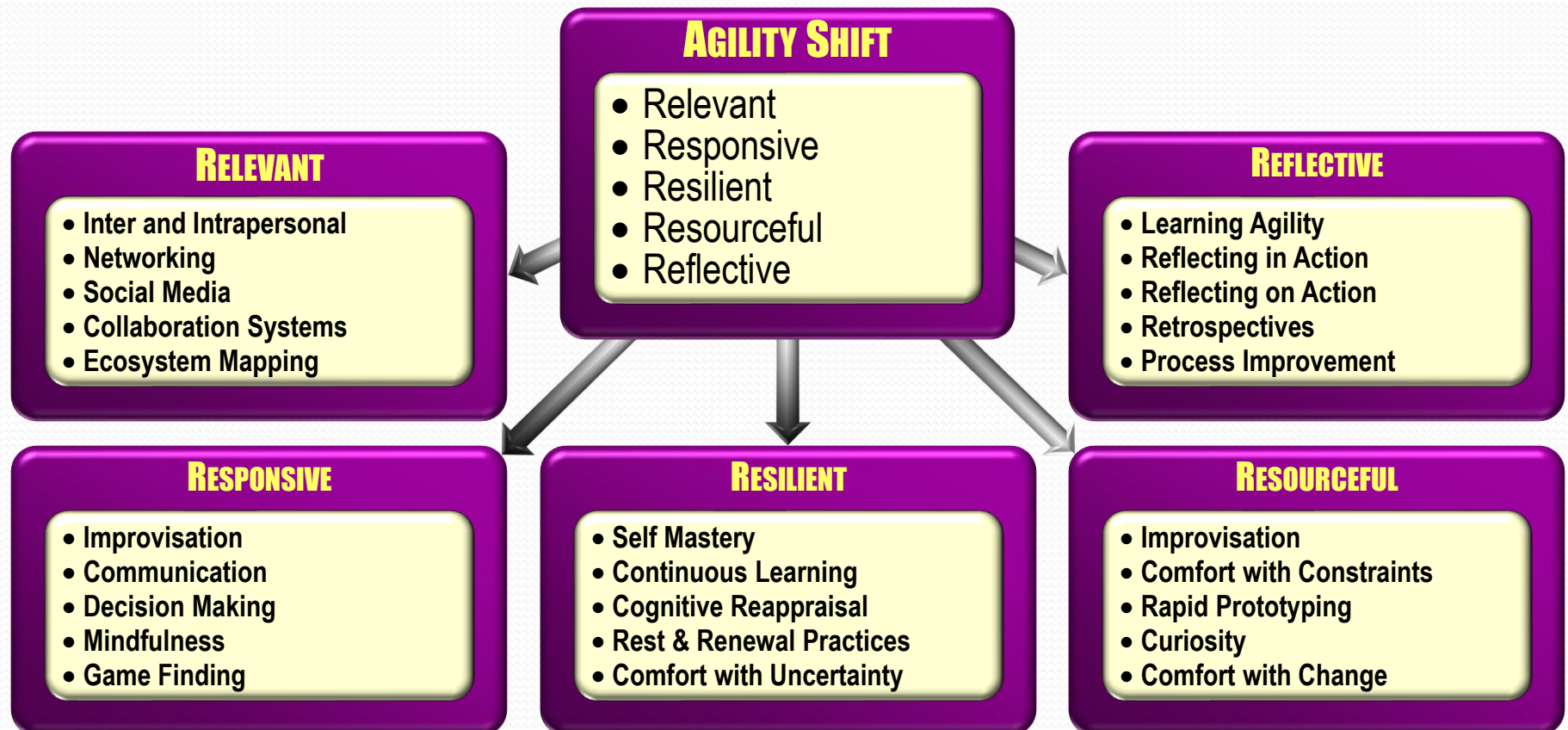
# 15. Holacracy

- Created by Brian Robertson in 2015
- Inspired by networked self organizing teams
- ☞ □ Purpose, governance, & recursion major themes



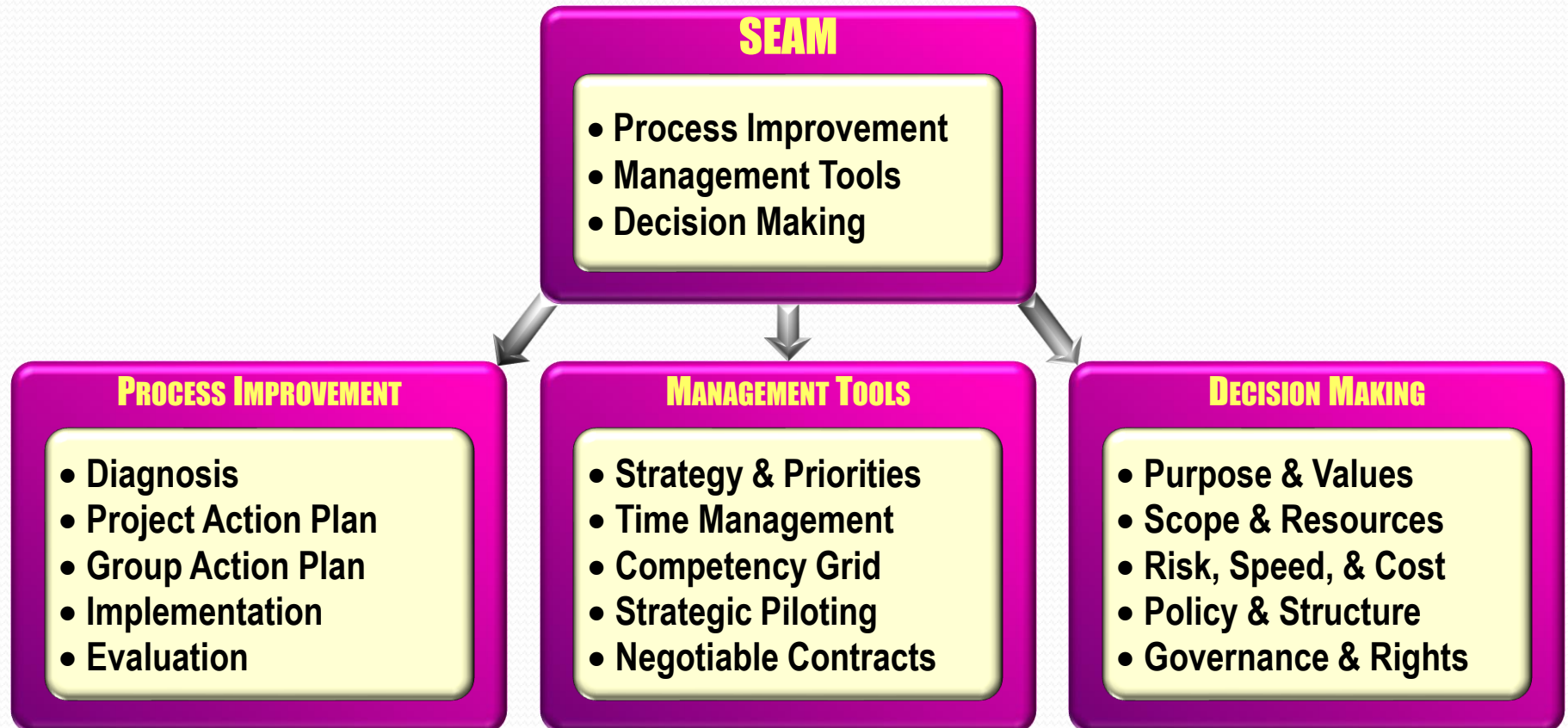
# 16. Agility Shift

- Created by Pamela Meyer in 2015
- Inspired by complex adaptive systems theory
- ☞ □ Collaboration, resilience, & improvising major themes



# 17. SEAM

- ❑ Created by Chris Worley et al. in 2015
- ❑ Inspired by socio-economic decision making
- ❑ Process, right-sizing, & governance major themes



# 18. Government Agility

- ❑ Created by Dave Rico in 2015
- ❑ Inspired by U.S. DoD 3rd offset strategy
- ❑ Lean, collaboration, & outsourcing major themes

