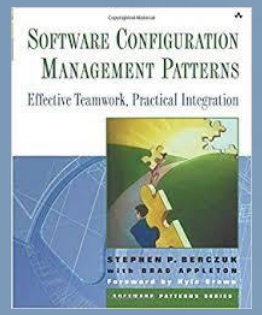
Brad Appleton *(he/they)*

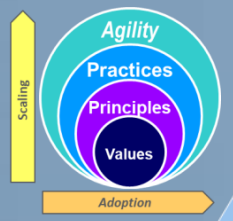


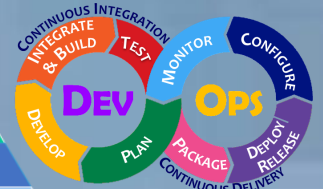
Principal 2022

WELLS FARGO 2021

2016

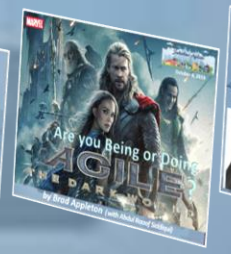
MOTOROLA
NETWORKS '98
'07 SOLUTIONS
'94 AUTOMOTIVE



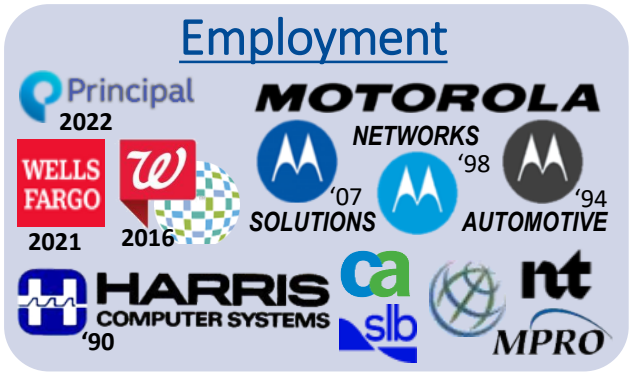


Enterprise Agile/DevOps Leader & Coach

Arlington Heights, IL (NW suburban Chicago)



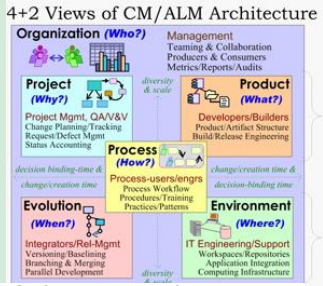
Brad Appleton (he/they) | <brad@bradapp.net> | linkedin.com/in/bradappleton



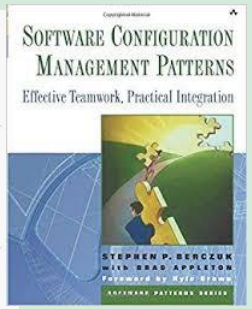
- **Agile/DevOps Leader, Manager, Coach, Solutions & Practices** (20+ years)
- **Author & Presenter:** Agile ALM/CM, SCM Patterns, Local Meetups
- **Husband, Father** (2 kids – college undergrads)
- *Cancer Survivor* (2020), *Kidney Donor* (2006)
- **Pets**: Cockatiels, Parakeets & Guinea Pigs
- **Hobbies**: DCU/MCU Movies & TV; jack-o-lanterns; singing & guitar
- **B.C. [Before Children]**: former dancer, martial arts (TKD), acapella

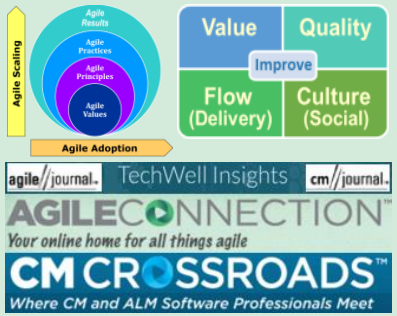
Professional works

Patterns and Software: Essential Concepts and Terminology



Streamed Lines: Branching Patterns for Parallel Software Development





Agile CM & ALM (1997-2012)

My Agile & DevOps Journey

- I've been an Agile/DevOps Engineering leader for *more than 20 years*, with a deliberate focus on software agility, tools & automation, and Agile CM/ALM (at enterprise scale)
- My Agile journey began in the mid-to-late 90's, as part of the *Software Patterns* community, where I participated in the creation/evolution of early agile methods/practices & mindset
  - 1995-2005: Scrum, XP, Crystal, ASD, FDD, Grizzly, Refactoring, CI, TDD, Agile SCM, Branching Strategies
    with: Martin, Beedle, Cockburn, Fowler, Beck, Cunningham, Coplien, Crocker, Sutherland, Highsmith, Seiwald, Wingerd
  - 2005-2010: Lean, Kanban, Agile ALM, Continuous Delivery, SAFe, LeSS, DAD, Agile Infrastructure, DevOps
    with: Poppendieck, Andersen, Cohn, Shore, Ambler, Poole, Moreira, Duvall, Betz, Humble, Leffingwell, Larman, Vodde
- I've always been passionate about improvement and craftmanship in a highly collaborative environment where people care about what they do and enjoy doing it together (as a team, and an organization).
- For the past decade my focus has been co-creating, leading & growing highly successful *Agile Engineering Ecosystems* to accelerate & transform Digital Delivery in the enterprise.

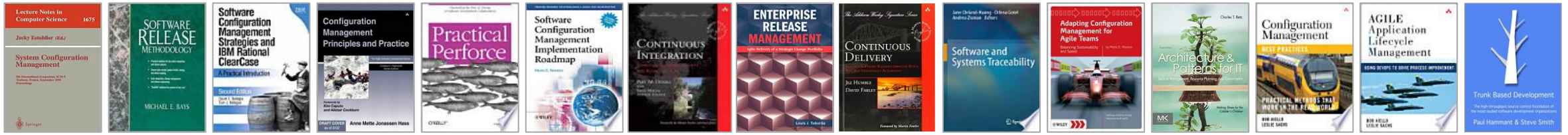
Social Media, Publications & Presentations

linkedin.com/in/BradAppleton	
slideshare.net/bradapp	
blog.bradapp.net	
twitter.com/BradApp	
bradapp.net/BradAppleton-Publications.pdf	

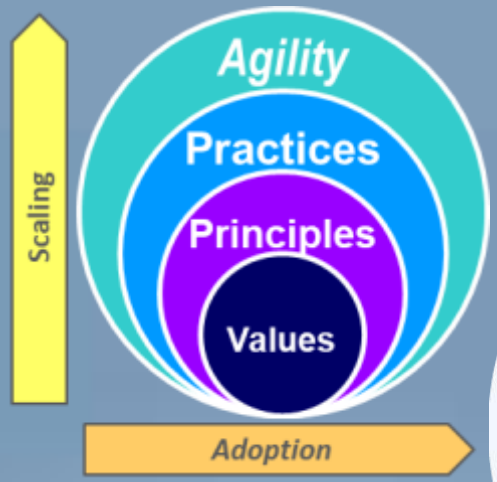
Books acknowledging me/my work

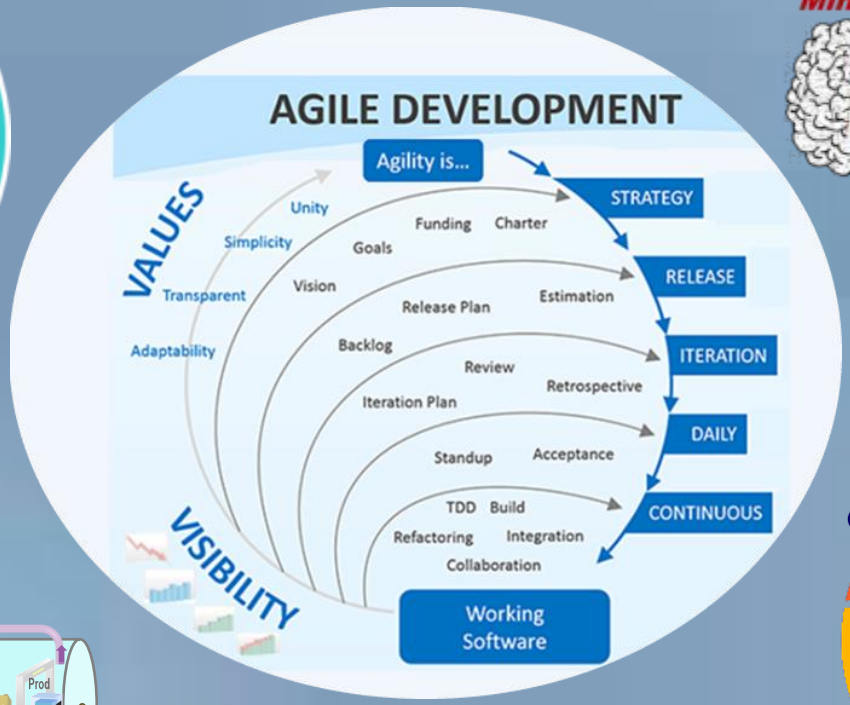
Software Development, Architecture & Engineering

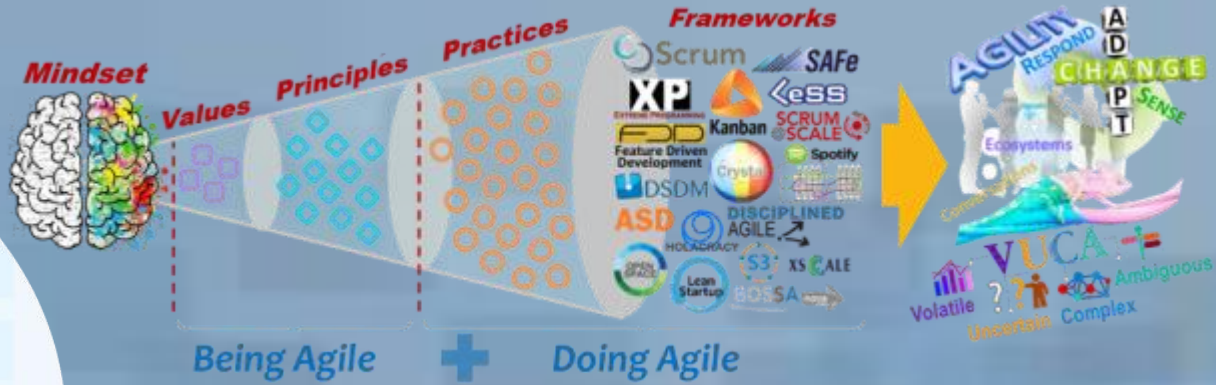
DevOps / ALM / CM

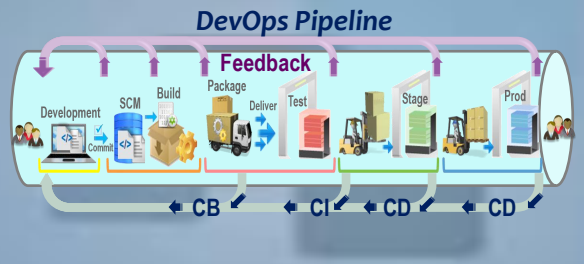


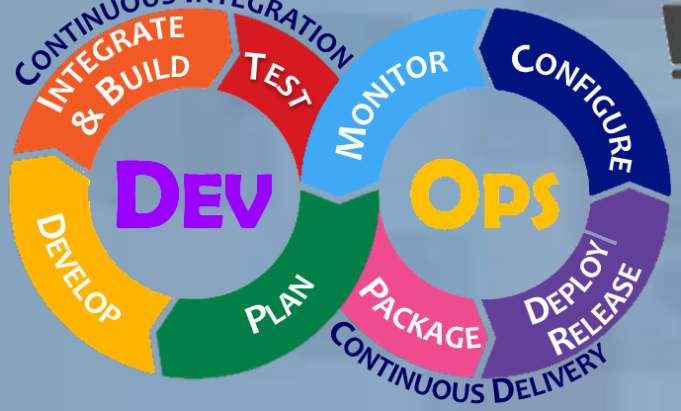
Agile Development











What is Agile? Agility? DevOps?

(Intro & Overview)

Agile is a *Mindset* … Agility is a *Capability*

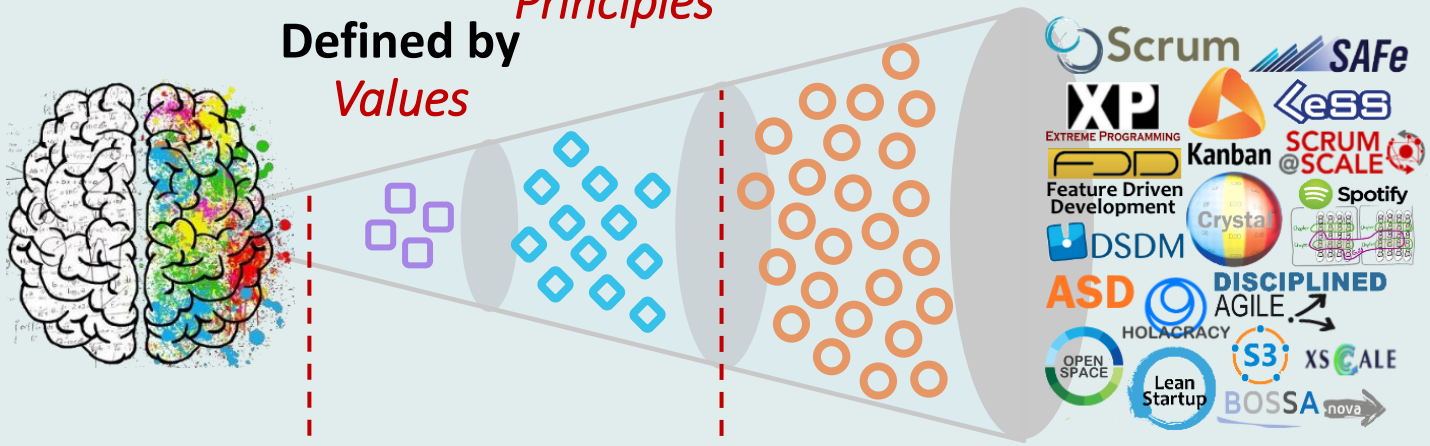
Agile is a *Mindset*

Defined by *Values*

Guided by *Principles*

Manifested thru many different *Practices*

(and Numerous *Frameworks*)



Being Agile + *Doing Agile*

Enabling *Agility*

… the Capability to *Create & Adapt to Change for Competitive Advantage* in a VUCA Environment

For *Business Outcomes*

Time to Market | Customer Satisfaction | Reliability
Predictability | Employee Satisfaction | Resilience

Agile *Development* is …

"An iterative and incremental (evolutionary) approach to software development

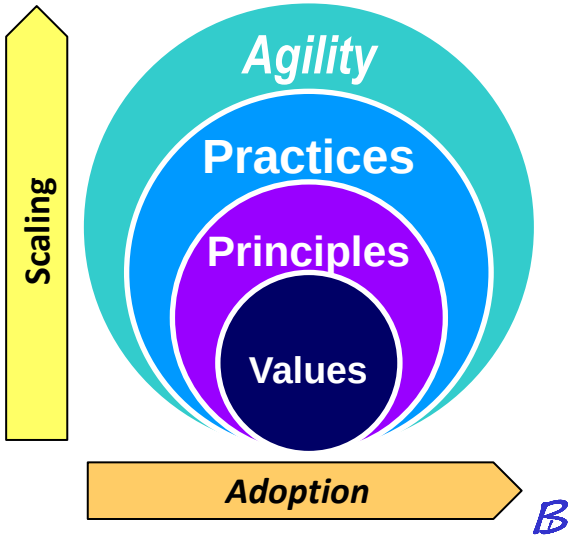
- *performed in a **highly collaborative** manner*
- *by **self-organizing teams** with **"just enough"** ceremony*
- *producing **high quality** software in a **cost effective** and **timely** manner*
- *to meet the **changing needs** of its stakeholders."*

— Scott Ambler, Disciplined Agility co-creator, IBM Agile Practice Leader

"Ultimately, it is about:

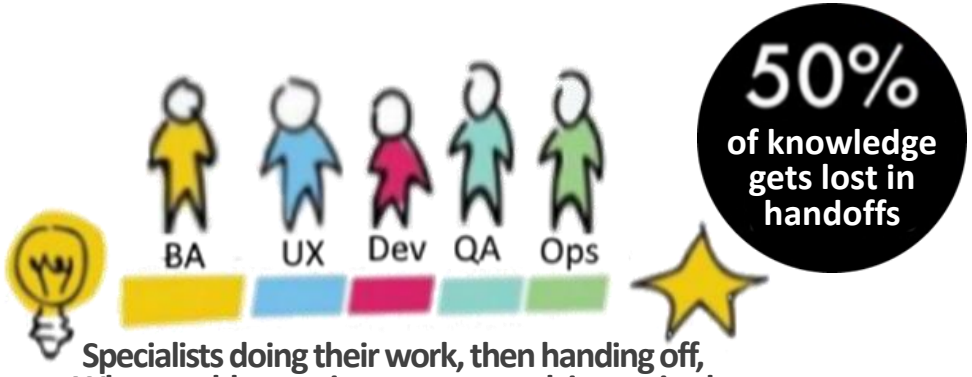
- ***Embracing change** rather than attempting to resist it*
- ***Focus on talent and skills of individuals and teams."***

— James Highsmith, Agile Manifesto co-author, Cutter Consortium



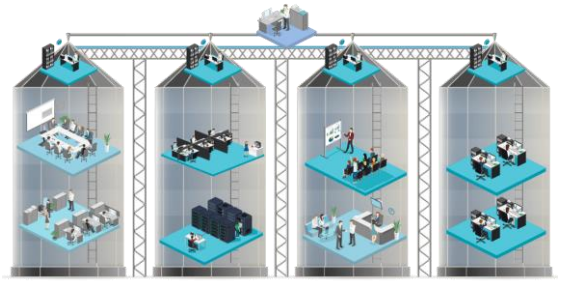
The Problem with [Functional] Silos

Waterfall Approach



Specialists doing their work, then handing off,
When problems arise, more rework is required

Functional silos optimize for resource utilization by role



Agile & DevOps Approach

Cross-functional Team effectively
solving problems together

Cross-functional collaboration with small batch-sizes & fast-feedback optimizes for lead-time to market

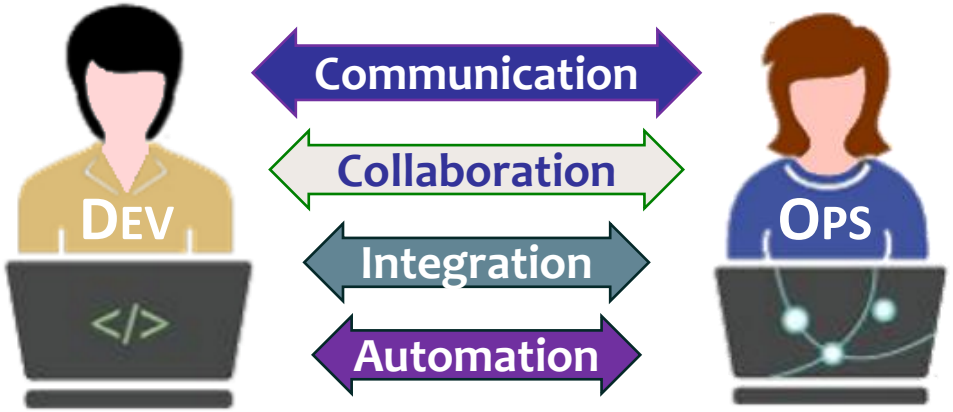
DANDY PEOPLE

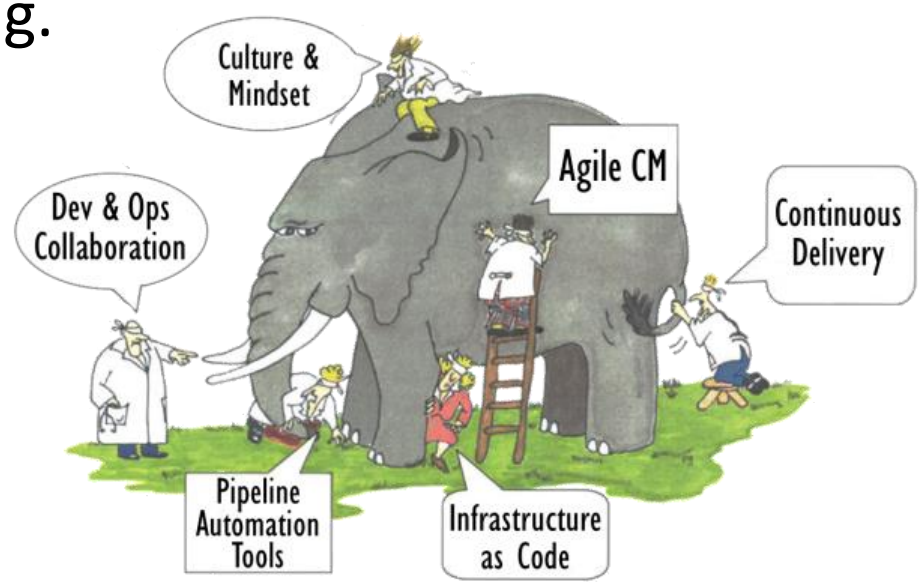
Source: dandypeople.com/posters

What is DevOps?

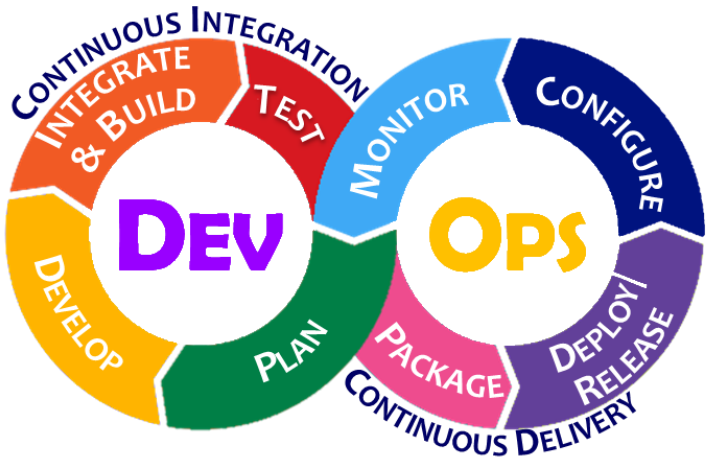
A professional IT movement, mindset & practices emphasizing ...

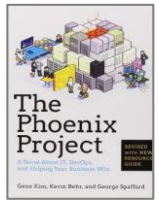
- ❑ *Culture of continuous collaboration* between development & operations
- ❑ *Automated pipelines for integration & delivery*, working in small-batches, with shorter lead-times (frequent deployment), and low failure-rates.
- ❑ *Agile practices* (coding & automation) applied to infrastructure, CM, release/deploy, operations & monitoring.

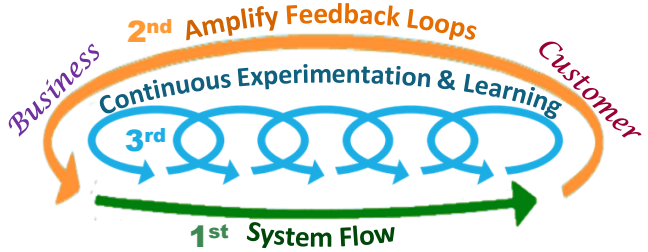


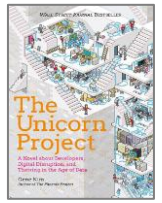


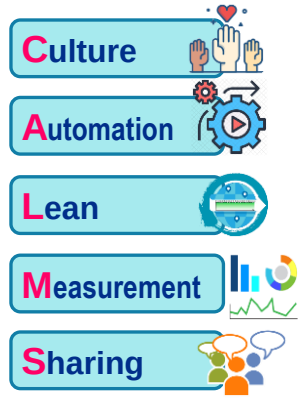
DevOps is about …

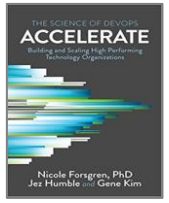


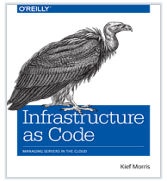


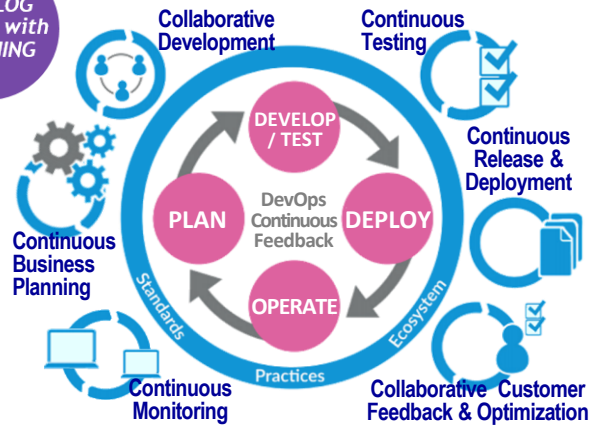


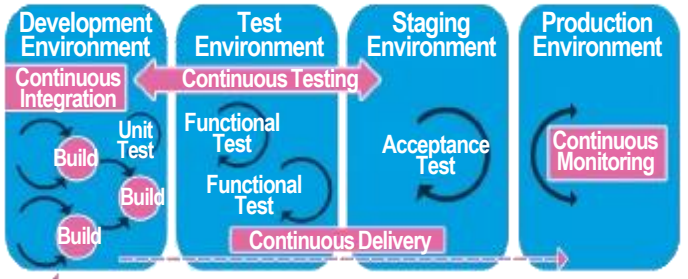


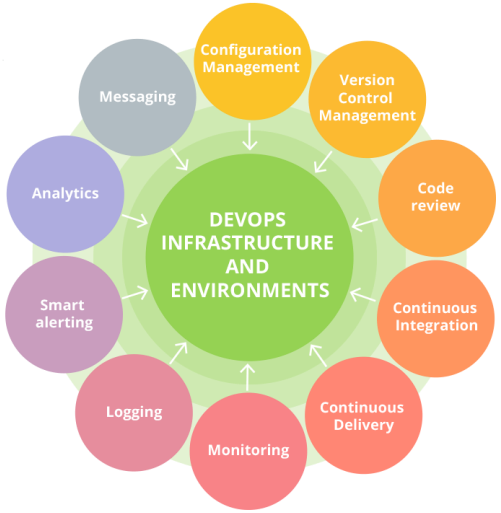






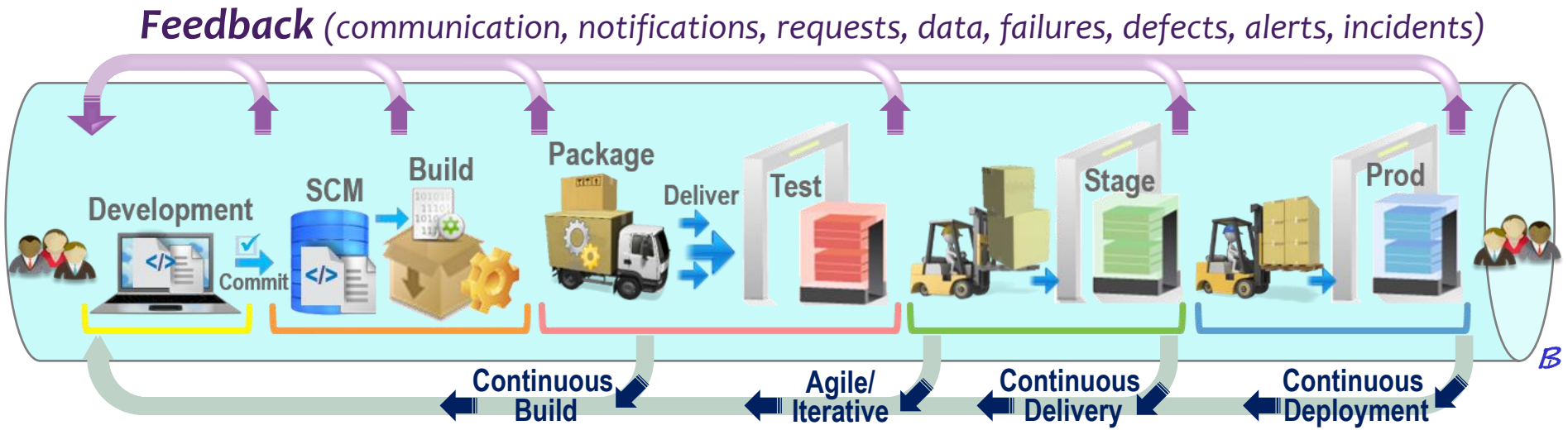






The DevOps Pipeline

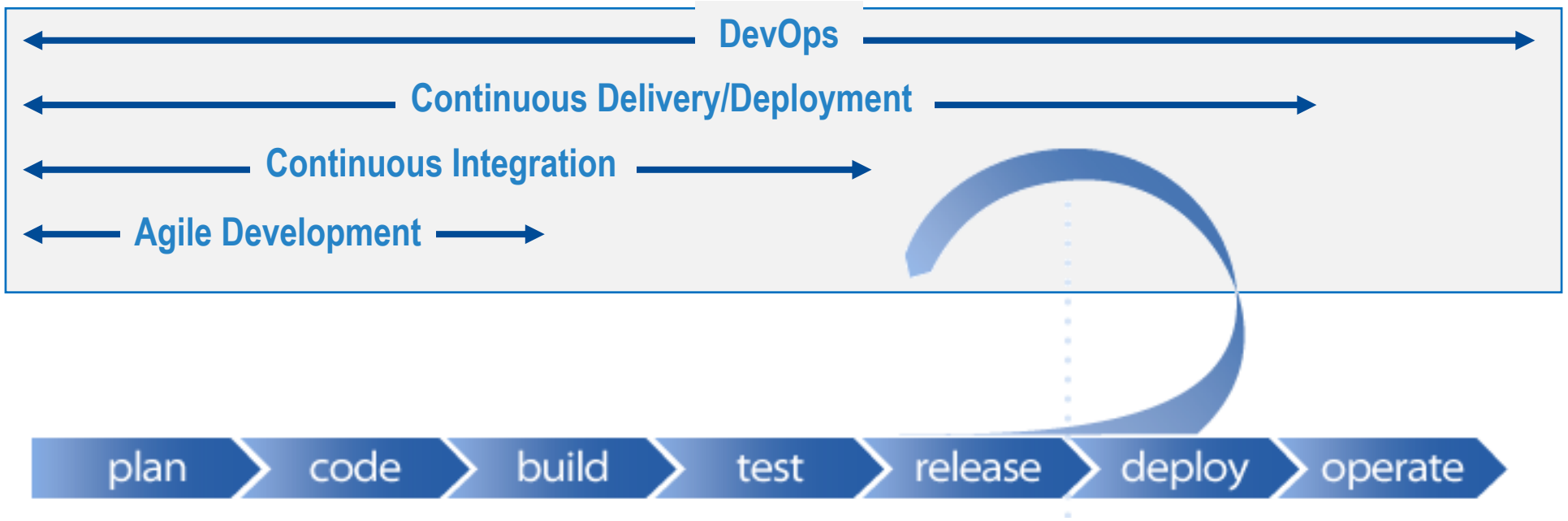
A **DevOps Pipeline** is *a set of integrated software tools* (toolchain) that help automate the development, deployment, management and support of digital products *throughout the development+delivery lifecycle*, as coordinated by an organization using DevOps principles & practices.



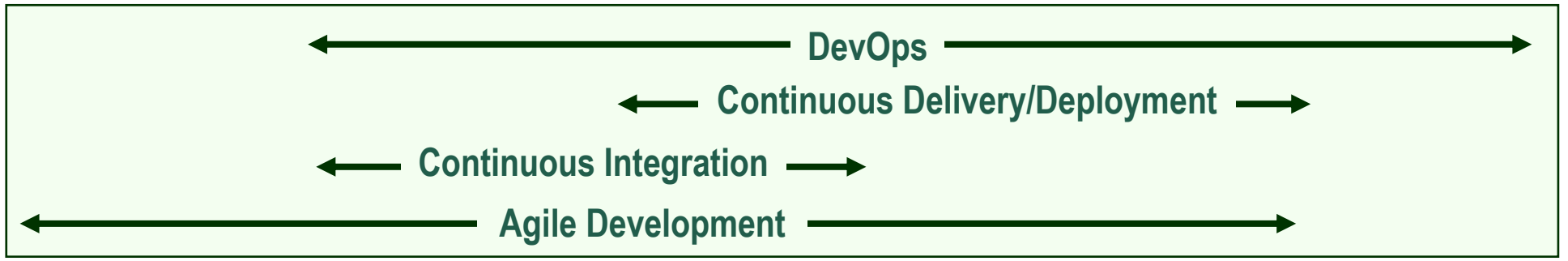
"DevOps, in a sense, is about setting up a value delivery factory – a streamlined, waste-free pipeline through which value can be delivered to the business with a predictably fast cycle-time" –Mark Schwartz, *The Art of Business Value*

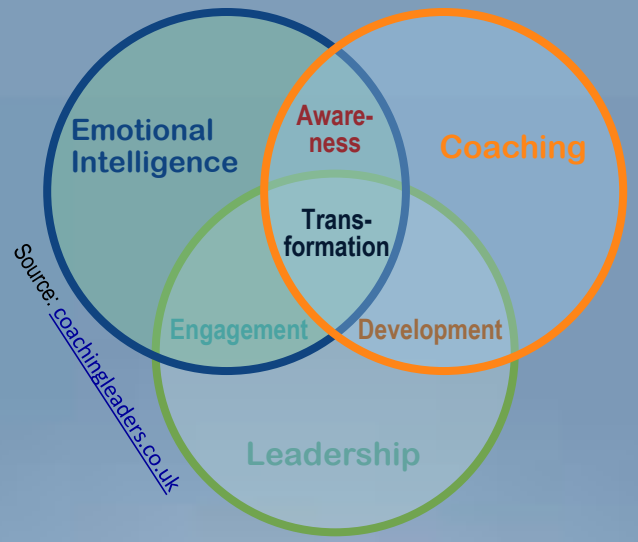
Relationship between Agile & DevOps

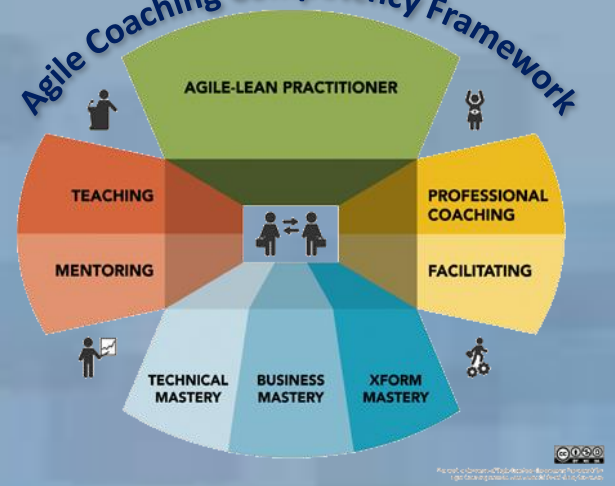
DevOps Perspective of Agile Development

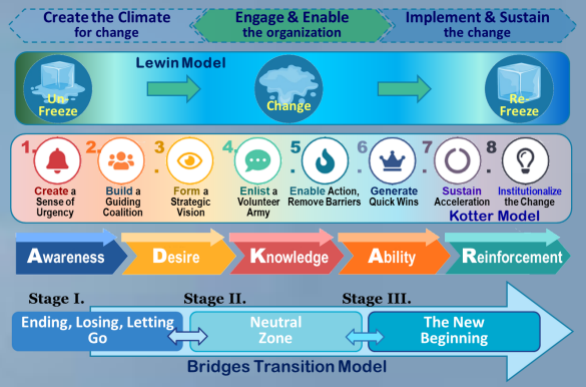


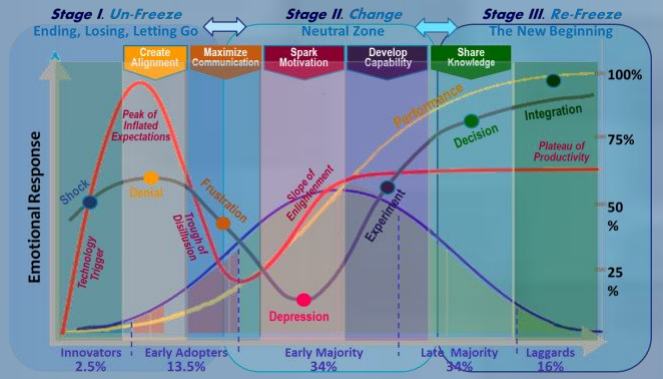
Agile Developer's Perspective of DevOps







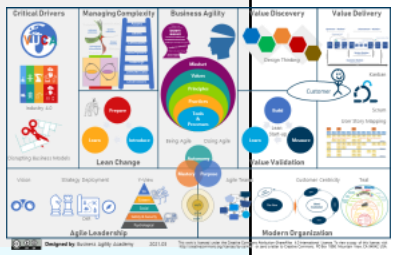
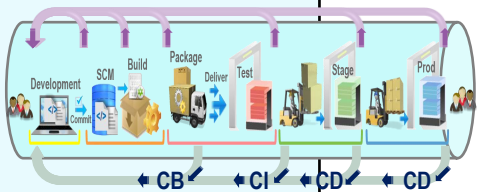
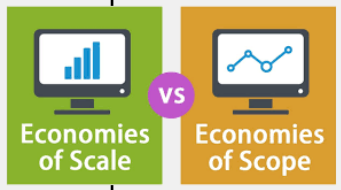
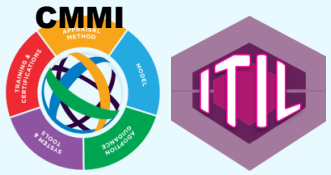




Digital+Agile+DevOps Transformation

(Organizational Leadership & Change)

Shift Happens! *(What are we Transforming from/to?)*

From (Traditional Projects)	**To** (Agile Product/Service Delivery)
Six Sigma & Mass Production (optimize resource *utilization* & minimize *variation/change*) 	**Agility, Collaboration & Learning** (optimize *knowledge-creation* & minimize *the economic impact* of variation/change) 
Stage & Gate (program *compliance*, process *control*) 	**D2D** [Discovery-to-Delivery] **Pipelines** (streamlined/flexible *flow* to *adapt/pivot*) 
[Physical] **Economies of Scale** (one size [process/tool] fits *all*) 	[Digital] **Economies of Scope** (complex systems, product-lines, start-ups)
CMMI & **ITIL**-based process+metrics 	**Agile/DevOps & Lean/IT4IT** process/practice frameworks   

Agility @ Scale: Dimensions of Complexity/Risk

Team size+distribution

<10 developers, all co-located ⟷ 100+ developers, many teams+sites

Technical size+complexity

Number/size of repositories, #files/requirements levels+span of architecture & requirements, interdependencies

Process complexity

Flexible workflows, minimal dependencies few handoffs/approvals ⟷ Rigid, complex workflows, strict roles & dependencies many handoffs/approvals

Distributed/Parallel complexity

Single focus ⟷ Multiple releases, tiers, markets, channels, environments

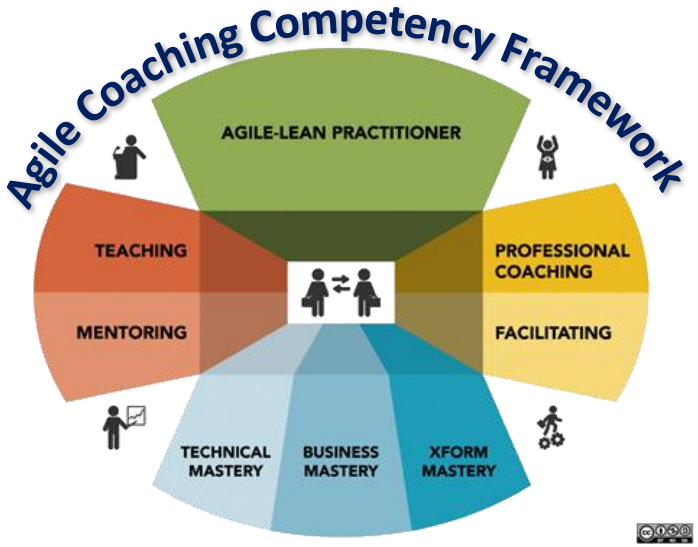
Partnerships/interfaces

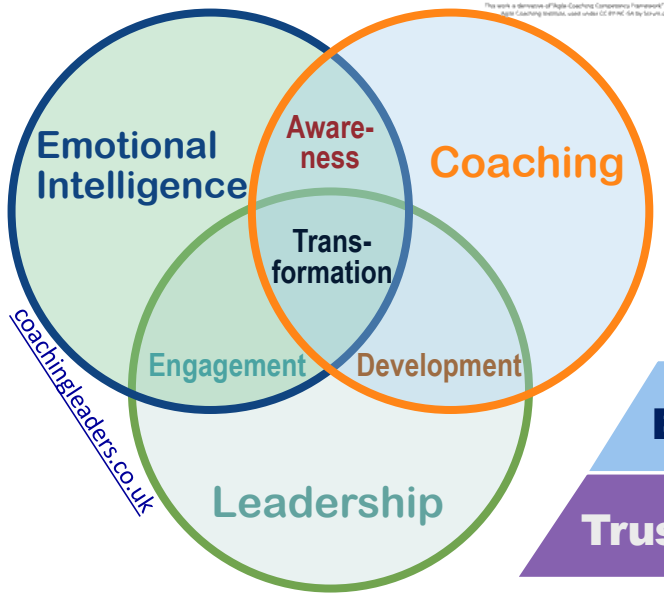
Isolated/decoupled, collaborative ⟷ closely coupled, contractual

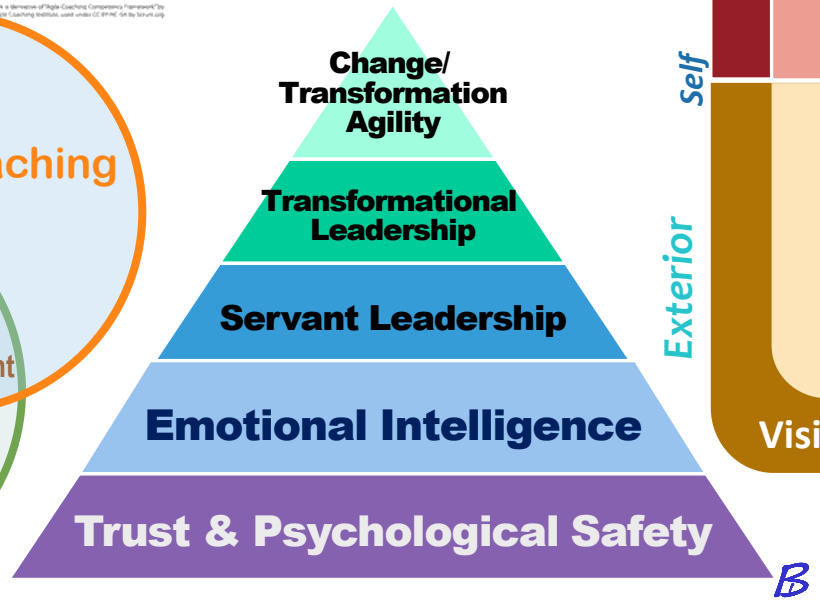
Compliance/Criticality

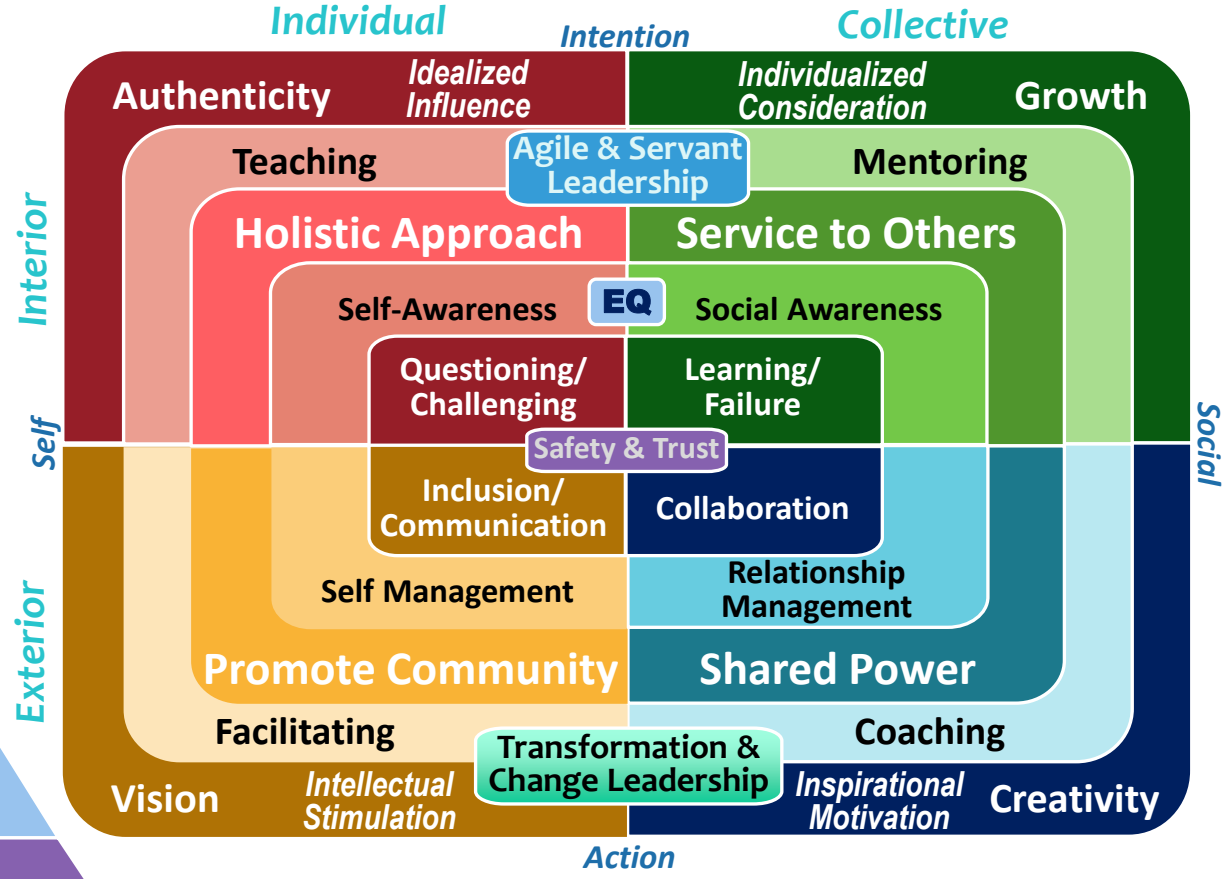
Low risk ⟷ Critical, audited

Integral Agile Leadership & Coaching

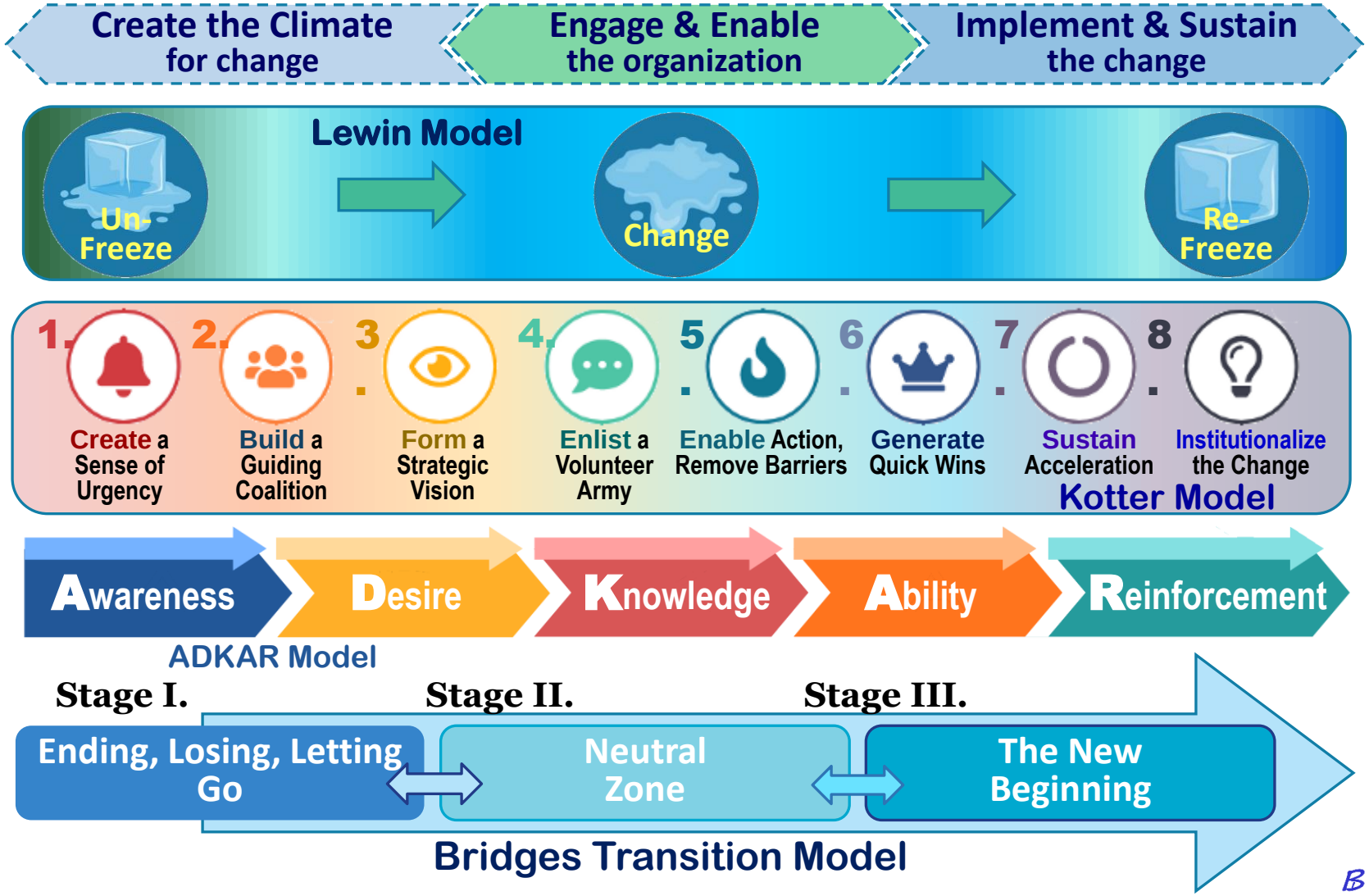






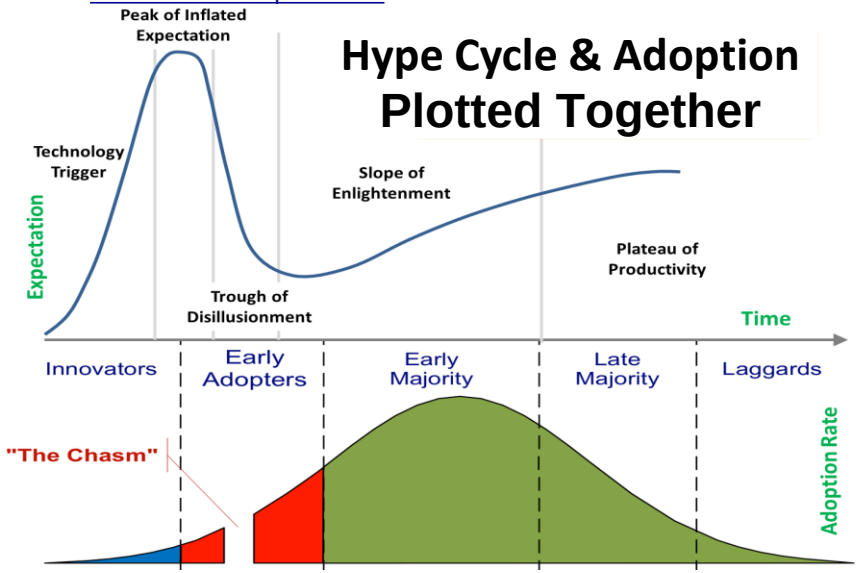


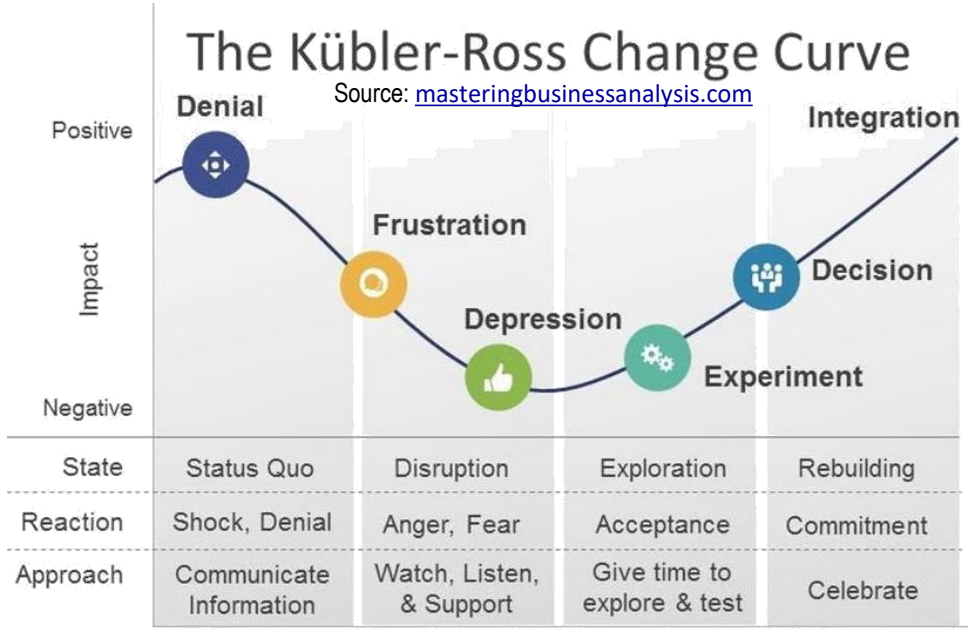
Transformation/Change Models

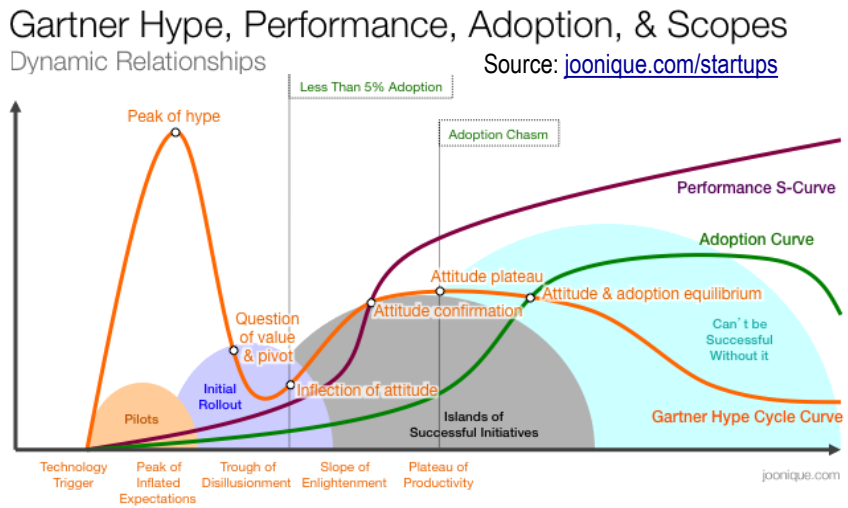


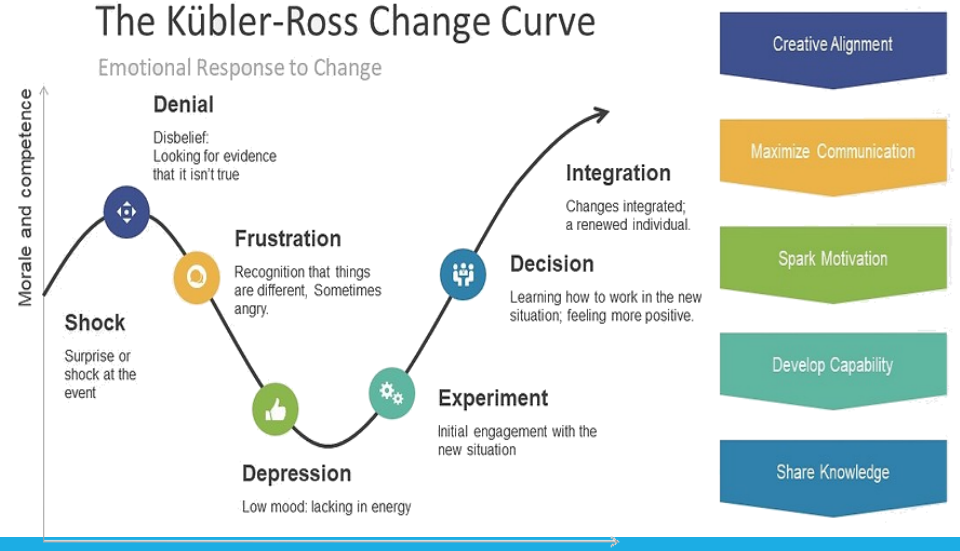
Change & Adoption Curves

Source: setandbma.wordpress.com

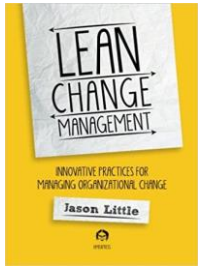


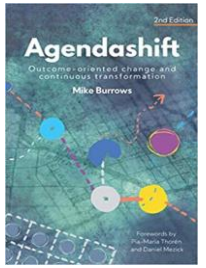


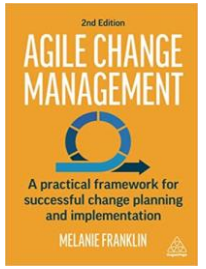


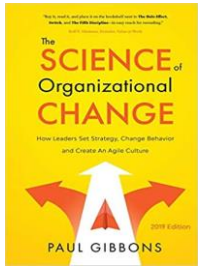


See also: weblog.tetradian.com/2016/08/09/tech-adoption-tech-evolution-lifecycle-mgmt





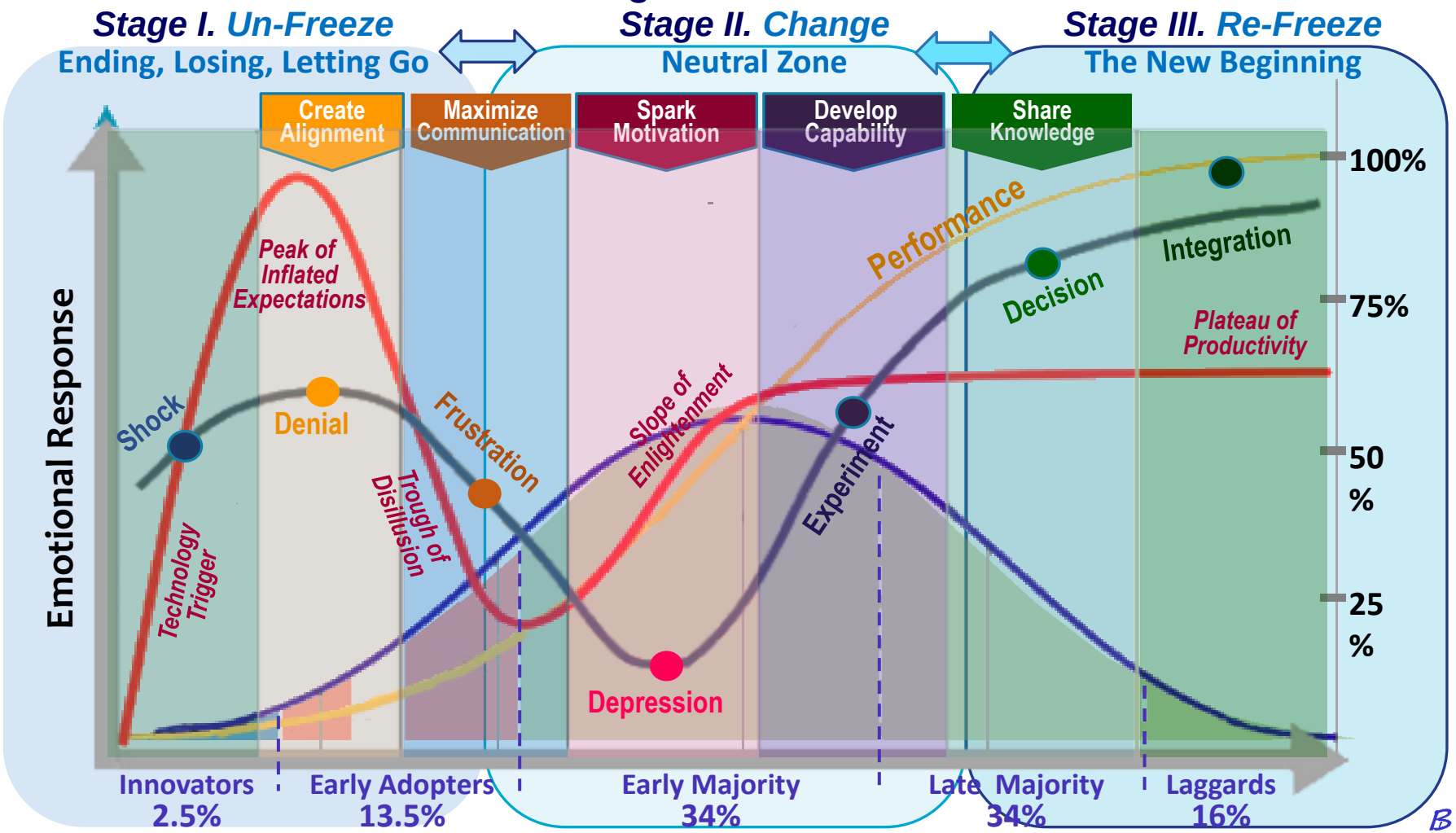


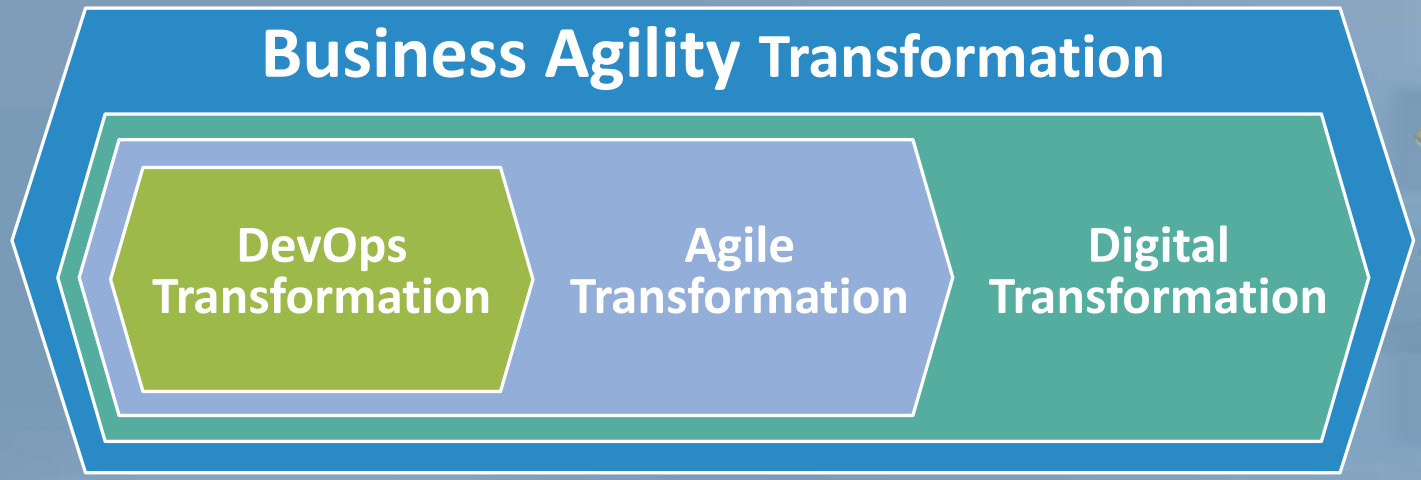


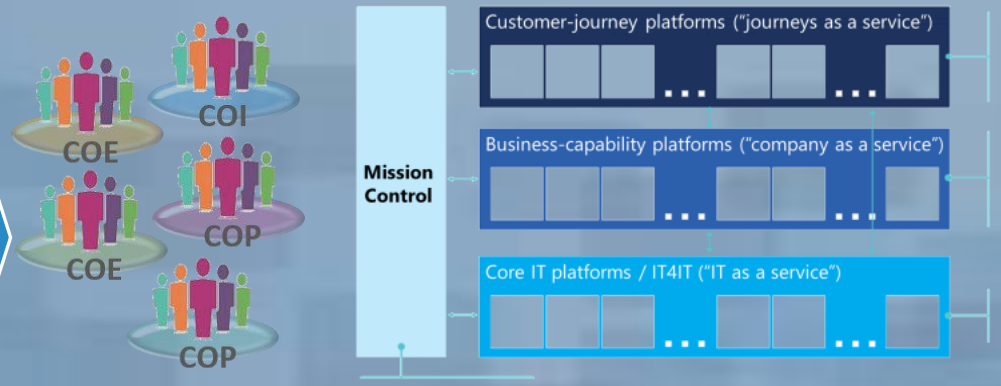
[Combined] Transformation & Change Curves

Kübler-Ross + Adoption Cycle + Hype Cycle + Performance + Transformation Curves

Lewin + Bridges Transition Model







Digital+Agile+DevOps Transformation

(Operating Model & Framework)

Agile/DevOps IT Operating Model —
Replacing Functional Silos with Cross-Functional Collaboration

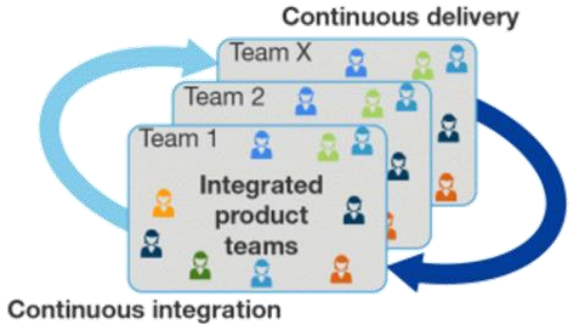
FORRESTER® RESEARCH

The Transition From Silos To Product-Centric Teams

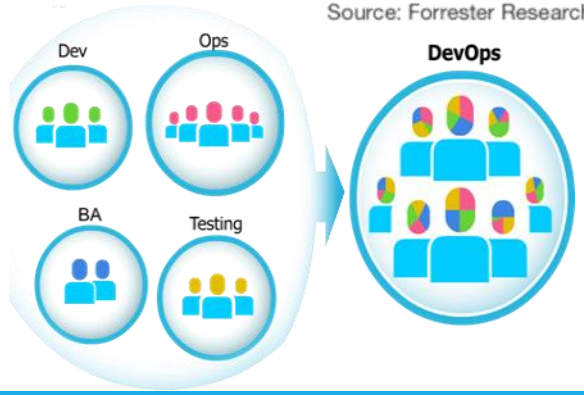
DevOps: The CIO's Guide To Velocity

Teams organized by function:
- Silo information.
- Stymie collaboration.
- Reduce customer focus.

Product teams:
- Ease information sharing.
- Improve response time.
- Maintain customer focus.

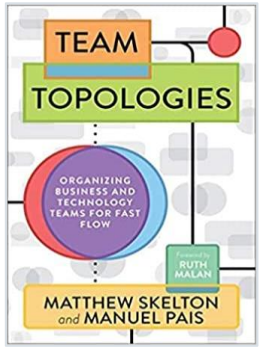


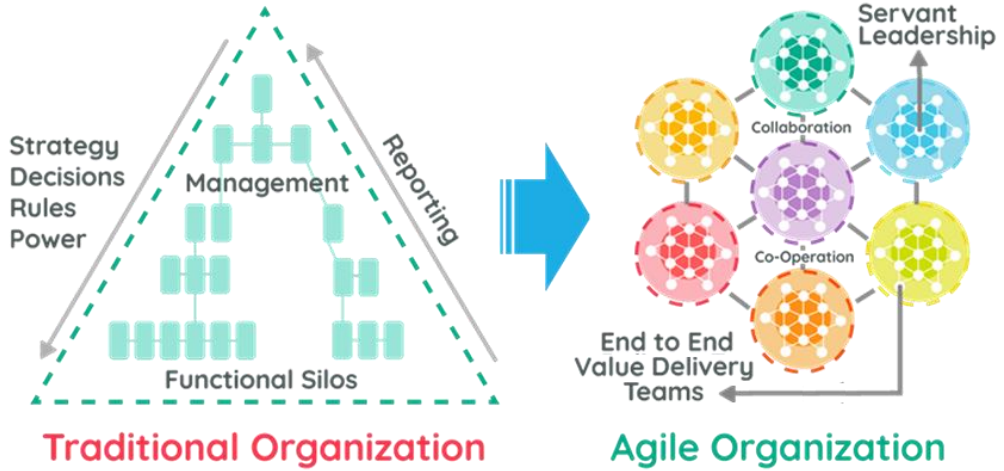
Source: Forrester Research, Inc.



4 Team Types
- Stream Aligned
- Enabling
- Complex Subsystem
- Platform

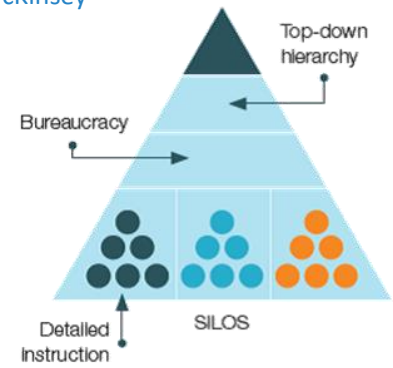
3 Interaction Modes
- Collaboration
- X-as-a-Service
- Facilitating

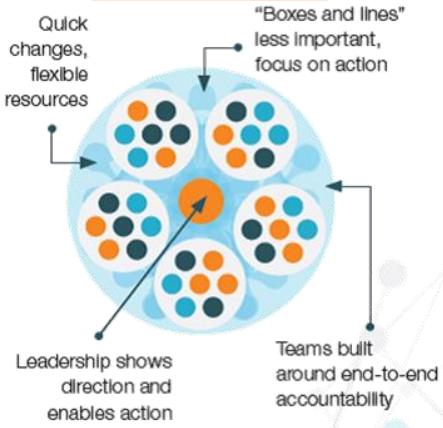




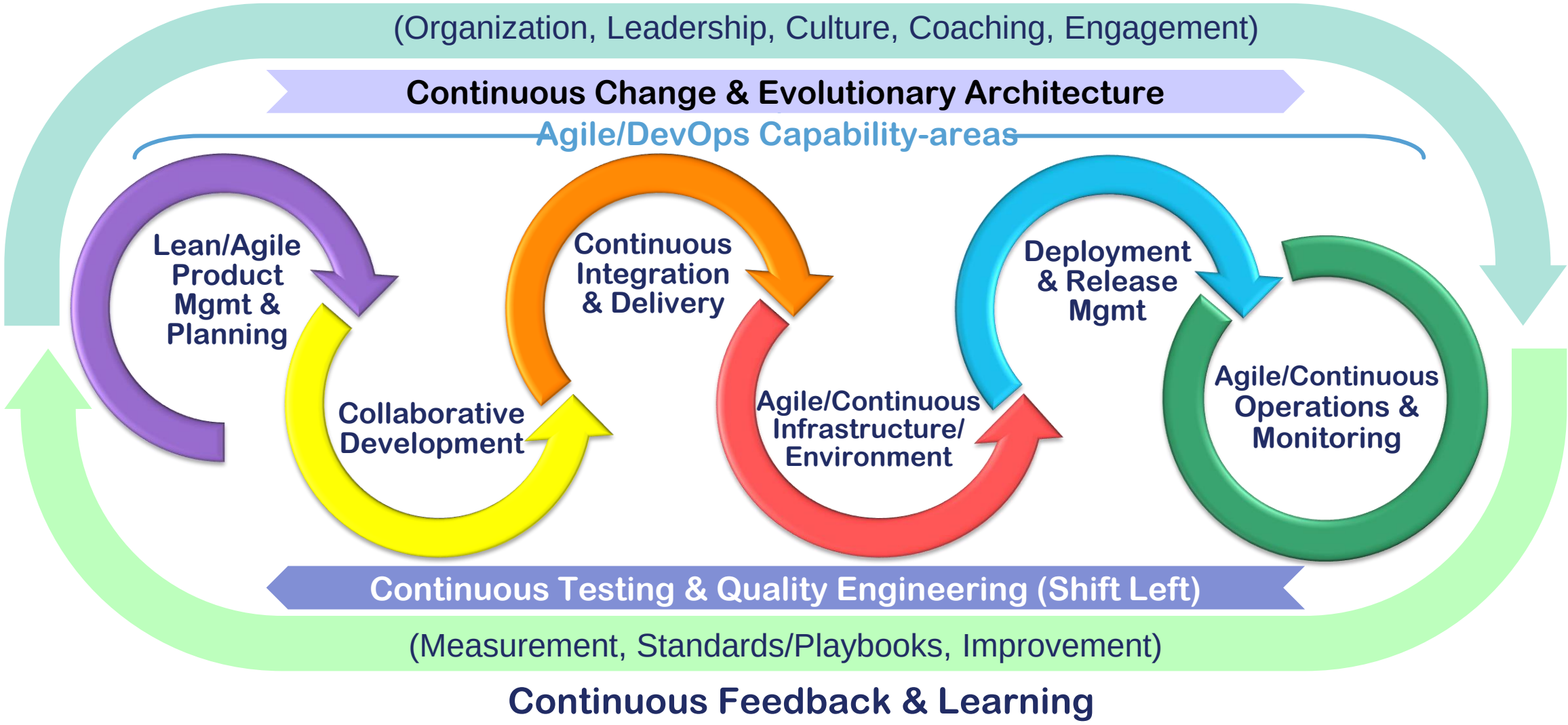
From organizations as "machines" ... → ... to organizations as "organisms"

Source: McKinsey



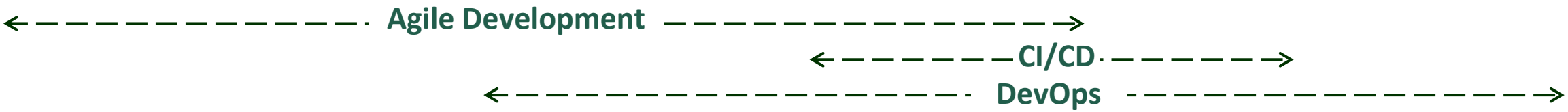


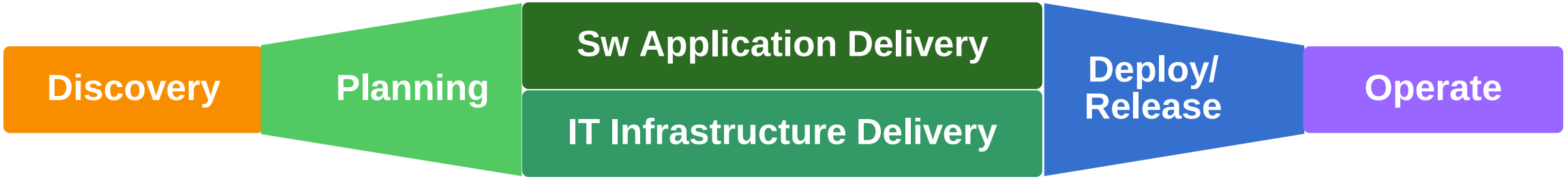
Lean-Agile/DevOps Integrated Delivery Framework



Continuous Feedback & Learning

IT Agility (across Mgmt, Engineering & Operations)





Enterprise Agility Metrics (Value, Flow, Quality, Culture)

Lean-Agile & DevOps Enablement Services - Alignment

Management/Leadership Agility

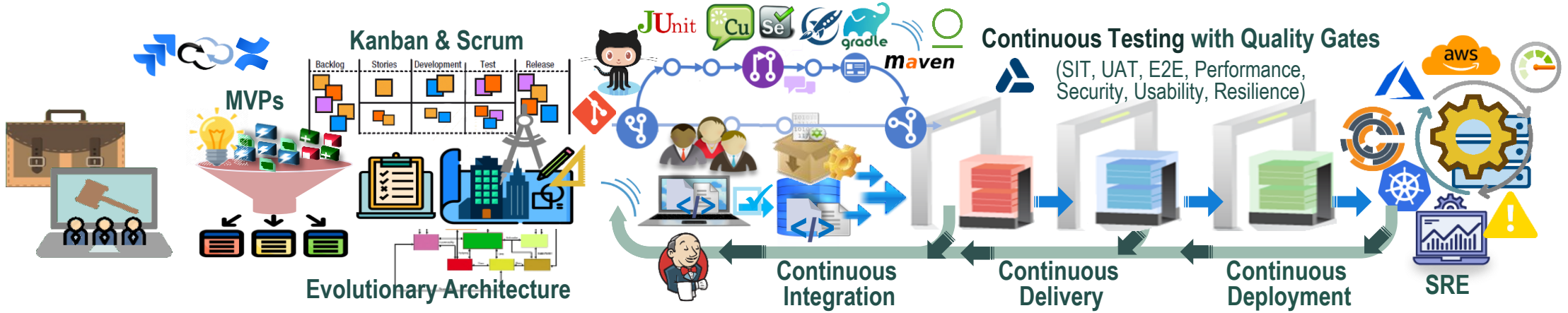
Scrum, Kanban, Journey Mapping, Product Mgmt, HDD, MVP, Stories, …

Technical/Engineering Agility

Evolutionary Architecture, Incremental Design, DDD, TDD/BDD, Refactoring, CI/CD, Infra-as-Code, Collective Ownership, Clean-Code, Agile SCM …

Operational Agility

Agile Ops, SRE, Chaos Engineering, A/B Testing, Canary Releases, Blue-Green Deployments, …



Portfolio & Governance → Intake & Requirements → Architecture & Planning → Design & Build → Integrate & Test → Deliver & Deploy → Operate & Monitor

Enterprise Lean-Agile Metrics (Value, Flow, Quality, Culture)

Thank You!