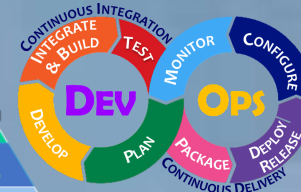
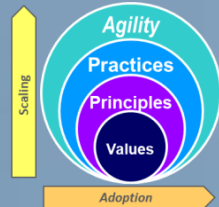
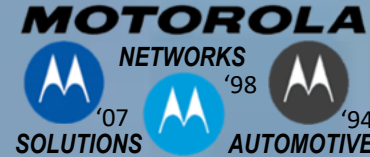
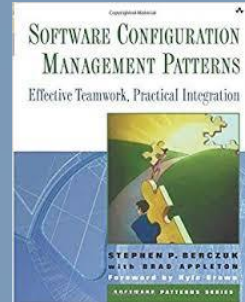




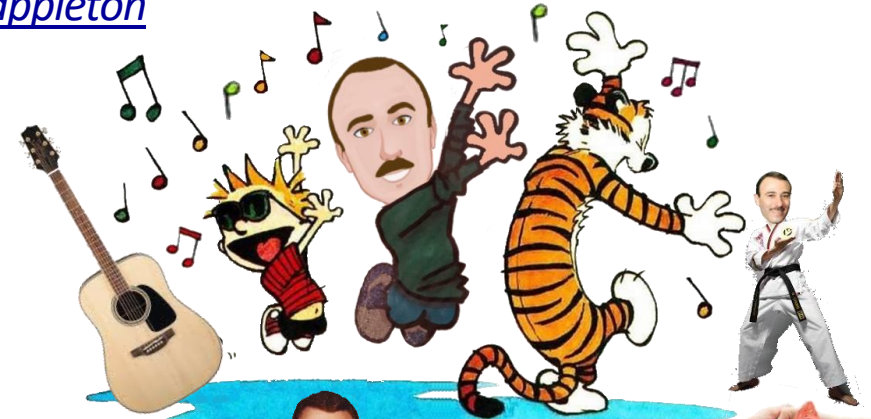
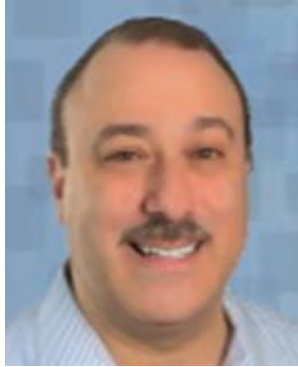
Brad Appleton *(he/him)*



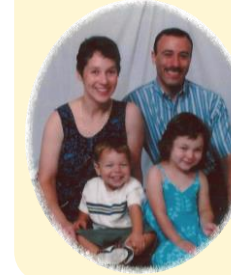
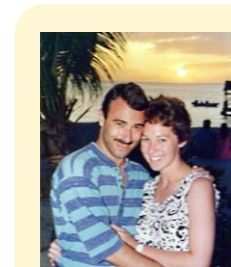
Enterprise DevOps+Agile Leader Arlington Heights, IL (NW suburban Chicago)



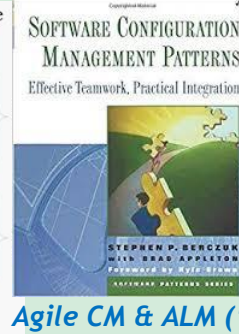
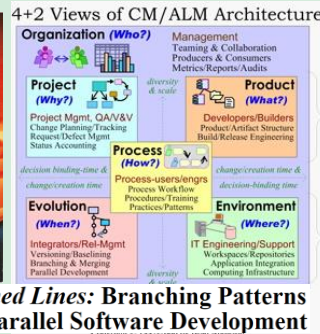
Brad Appleton (he/him) | <brad@bradapp.net> | [linkedin.com/in/bradappleton](https://www.linkedin.com/in/bradappleton)



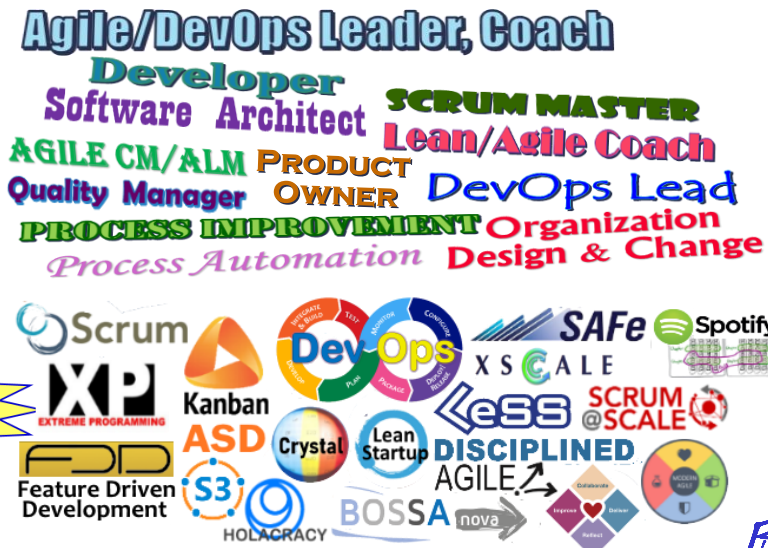
- **Agile/DevOps Leader, Manager, Coach, Solutions & Practices** (20+ years)
- **Author & Presenter:** Agile ALM/CM, SCM Patterns, Local Meetups
- **Husband, Father** (2 kids – college undergrads)
- *Cancer Survivor* (2020), *Kidney Donor* (2006)
- **Pets:** Cockatiels, Parakeets & Guinea Pigs
- **Hobbies:**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



Professional works



20+ years
200+ Organizations



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 craftsmanship 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

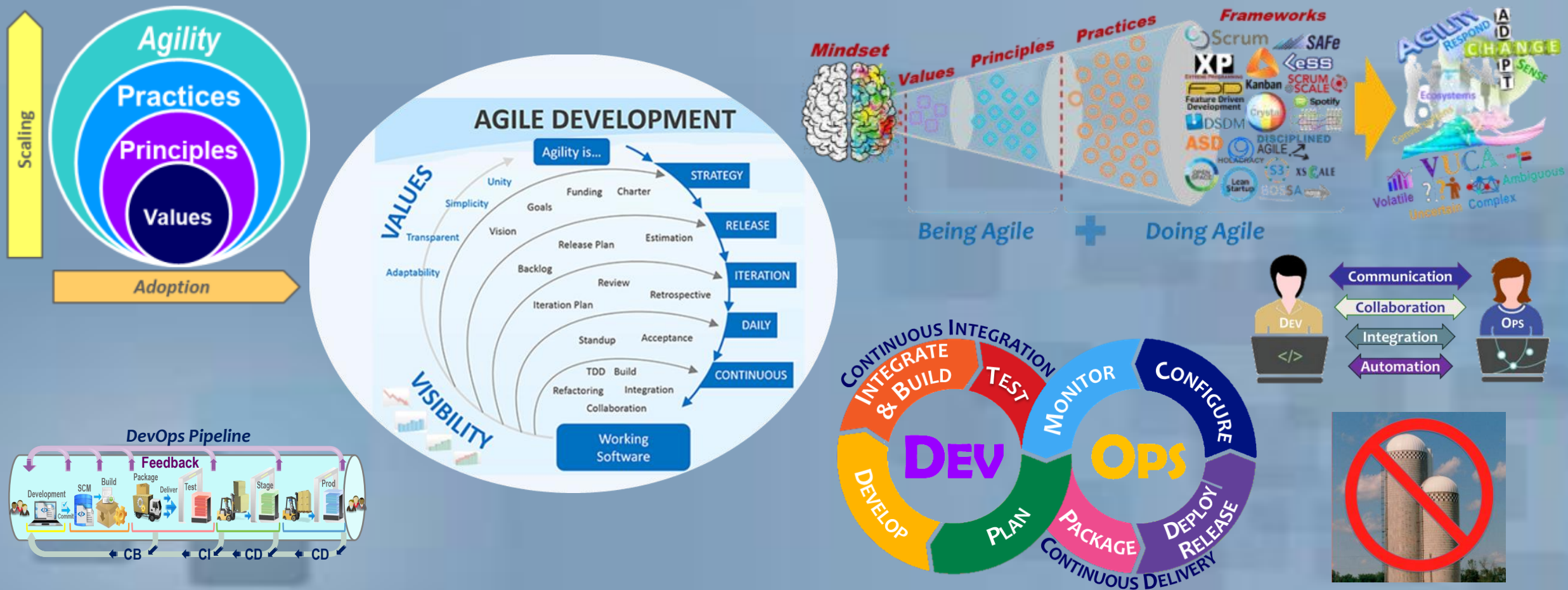


DevOps / ALM / CM



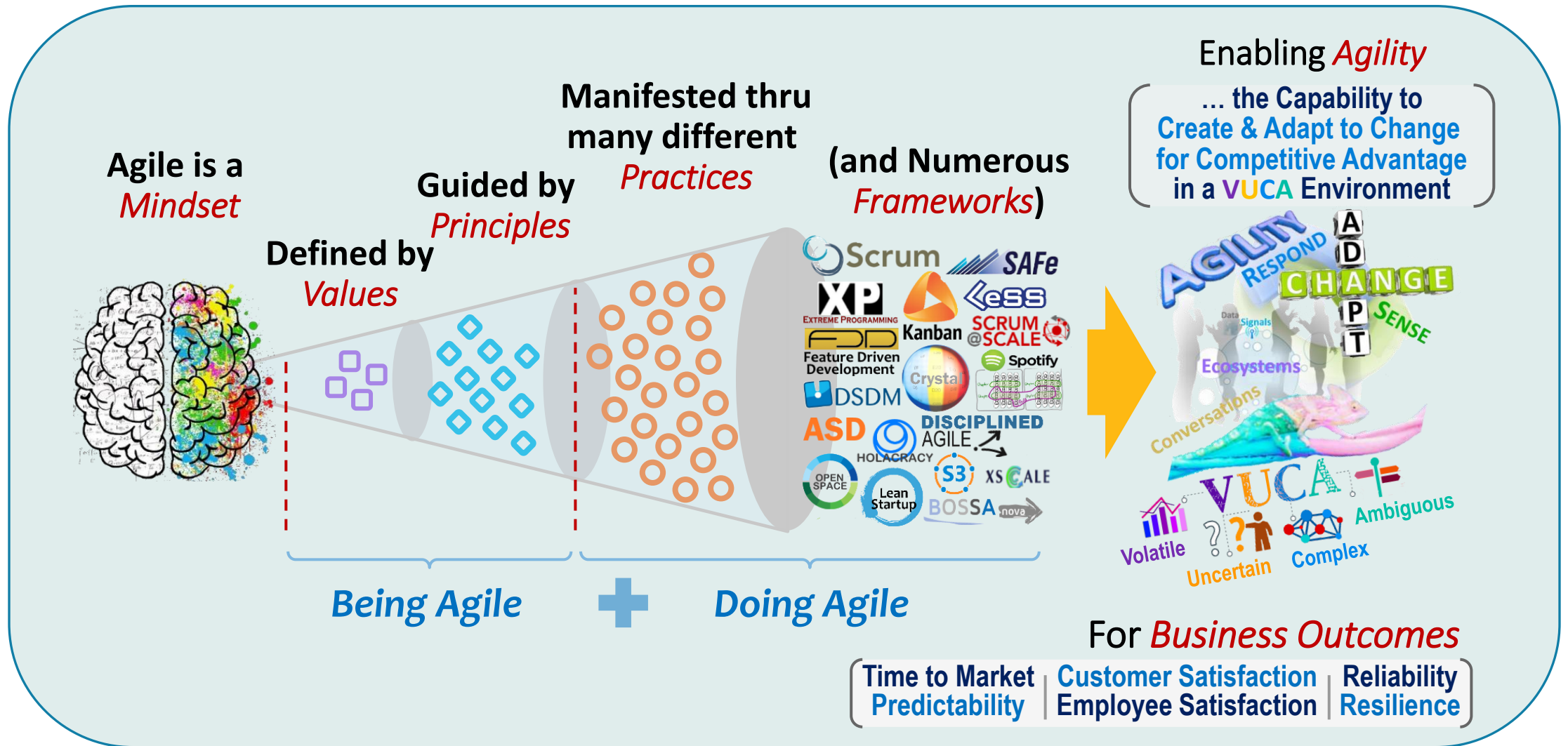
Agile Development





What is Agile? Agility? DevOps? (Intro & Overview)

Agile is a *Mindset* ... Agility is a *Capability*



Agile Development is ...

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

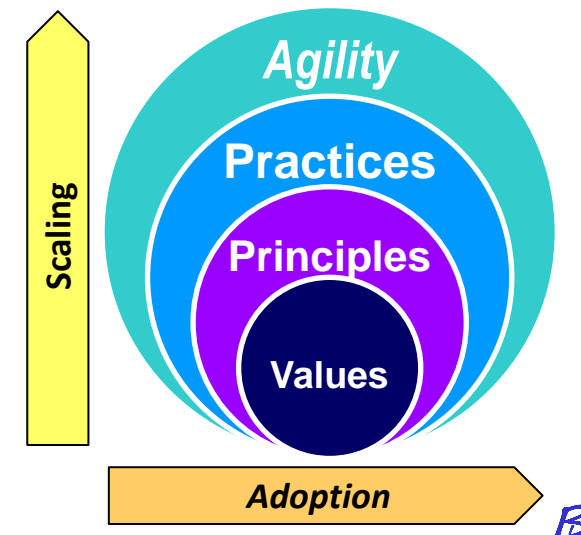
- *performed in a highly collaborative manner*
- *by self-organizing teams with "just enough" ceremony*
- *producing high quality software in a cost effective and timely manner*
- *to meet the changing needs of its stakeholders.”*

— Scott Ambler, IBM Practice Leader, Agile Development

“Ultimately, it is about:

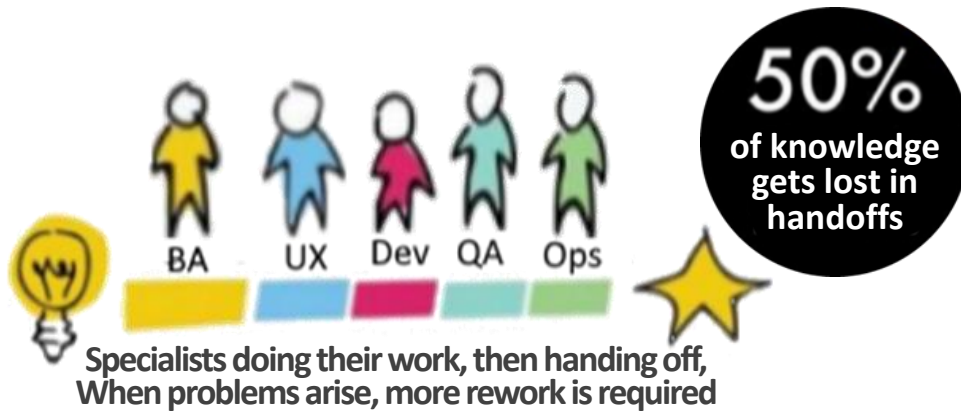
- *Embracing change rather than attempting to resist it*
- *Focus on talent and skills of individuals and teams.”*

— James Highsmith, Cutter Consortium

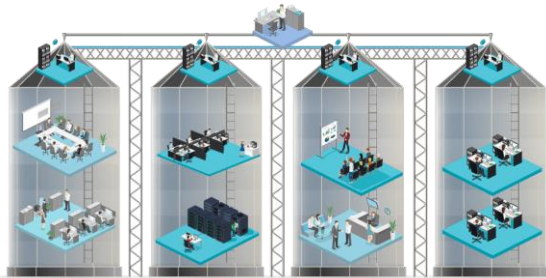


The Problem with [Functional] Silos

Waterfall Approach



*Functional silos optimize for
resource utilization by role*



Agile & DevOps Approach



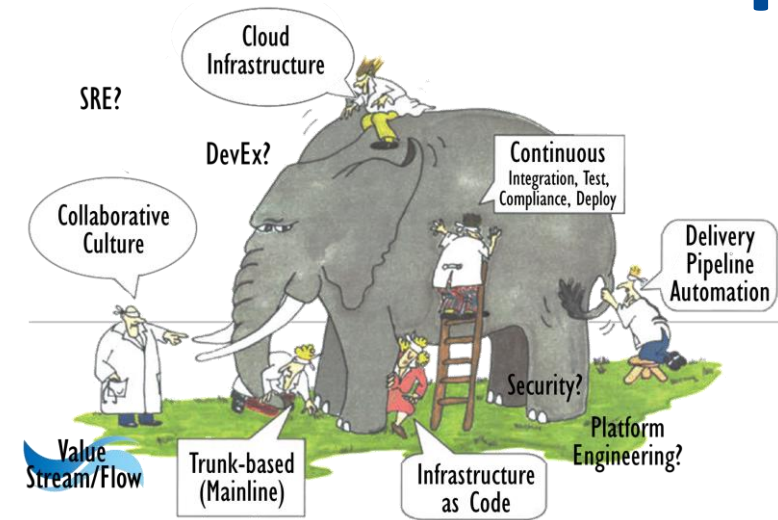
*Cross-functional collaboration with
small batch-sizes & fast-feedback
optimizes for lead-time to market*

**DANDY
PEOPLE**



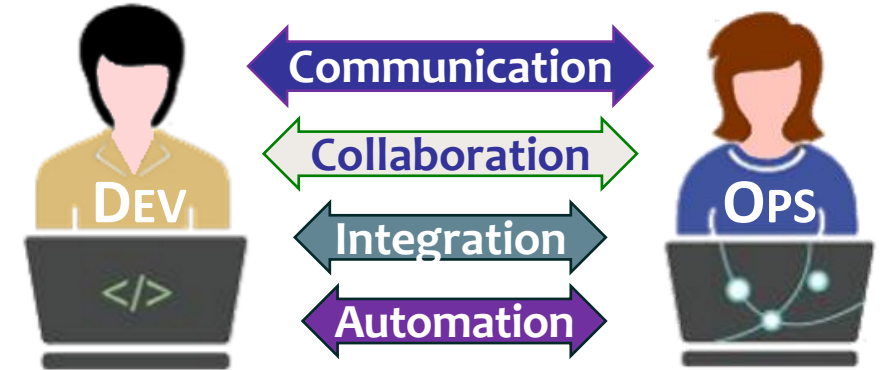
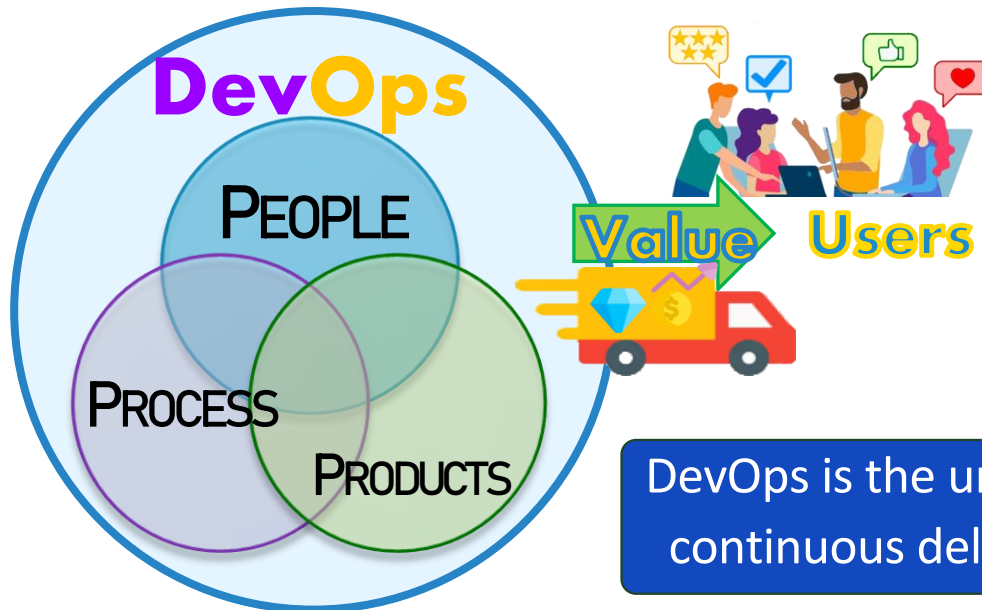
Source: dandypeople.com/posters

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.



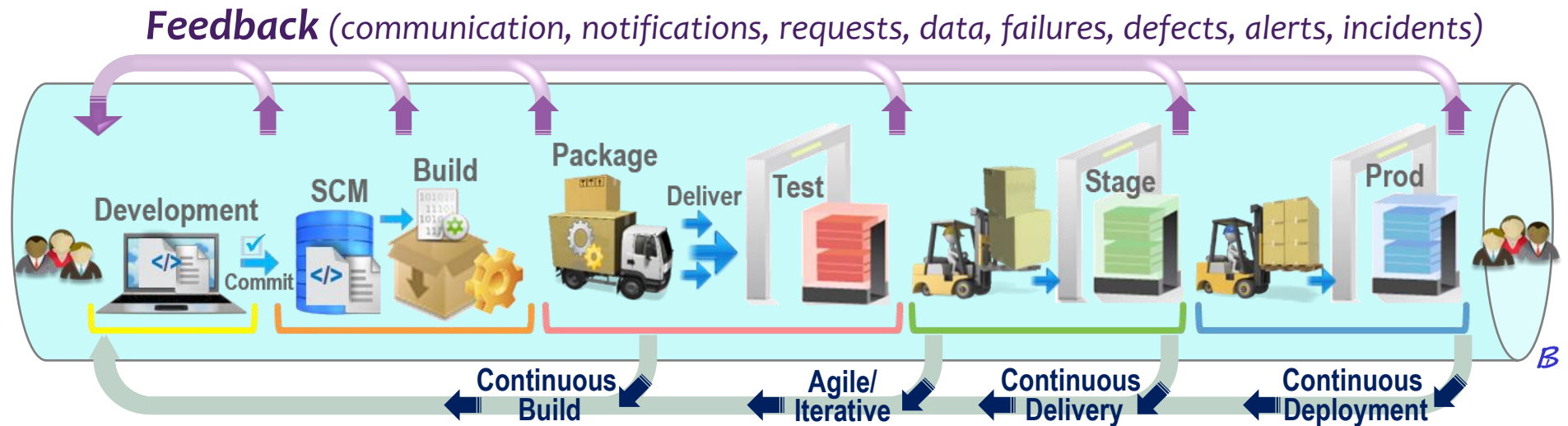
DevOps is the union of people, process, and products to enable continuous delivery of value to end users. —*Donovan Brown*

DevOps is about ...



The DevOps Pipeline

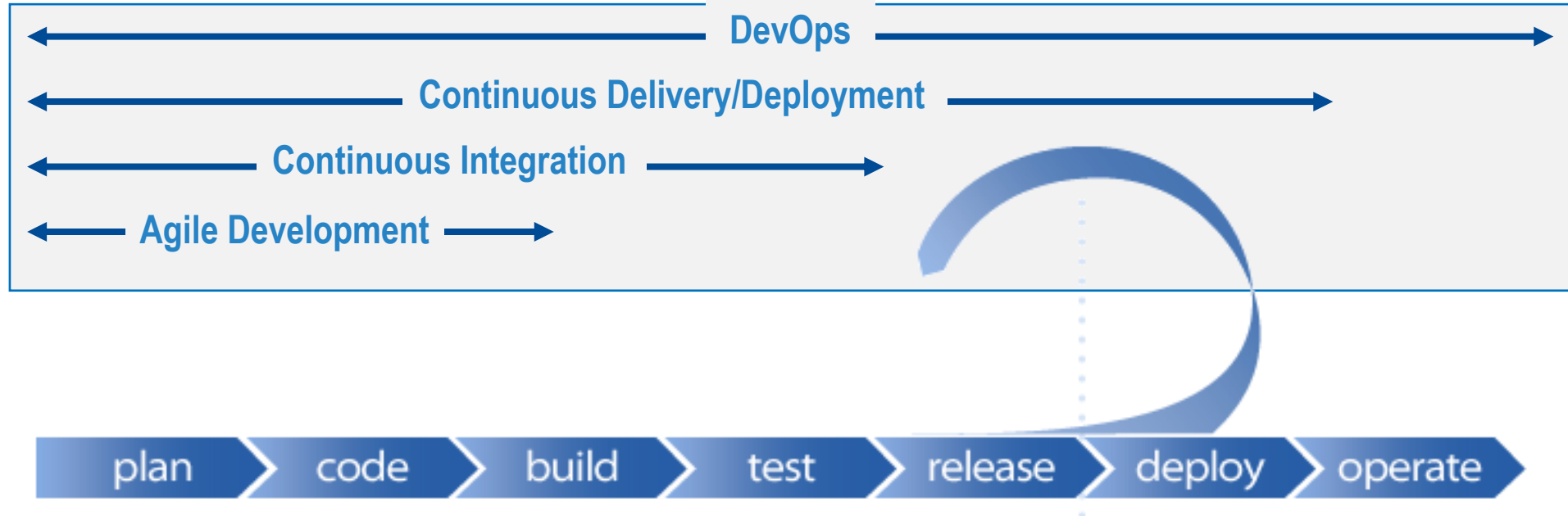
A **DevOps Pipeline** is a set of integrated software tools (toolchain) that help automate the development, deployment, management and support of digital products *throughout the development+delivery lifecycle*, as coordinated by an organization using DevOps principles & practices.



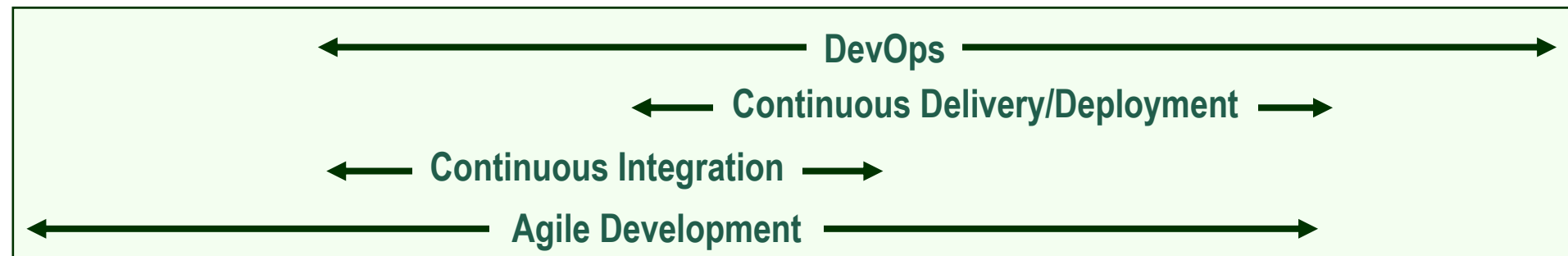
“DevOps, in a sense, is about setting up a value delivery factory – a streamlined, waste-free pipeline through which value can be delivered to the business with a predictably fast cycle-time” –Mark Schwartz, [*The Art of Business Value*](#)

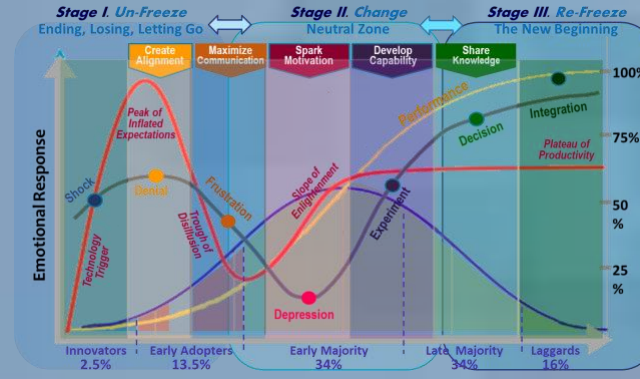
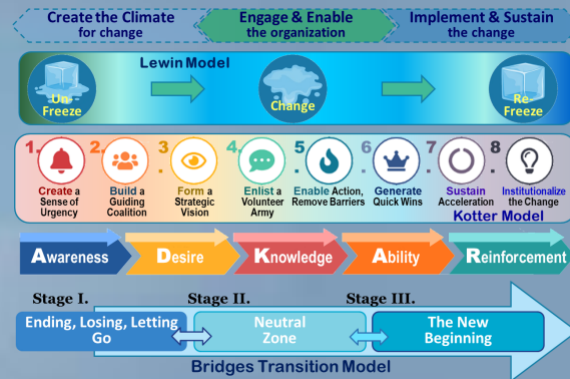
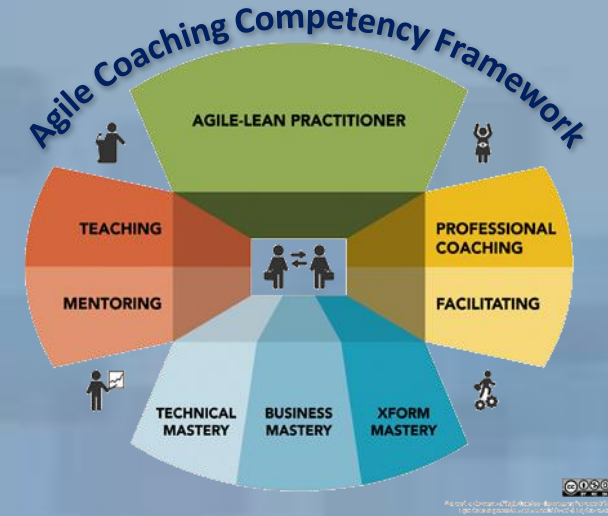
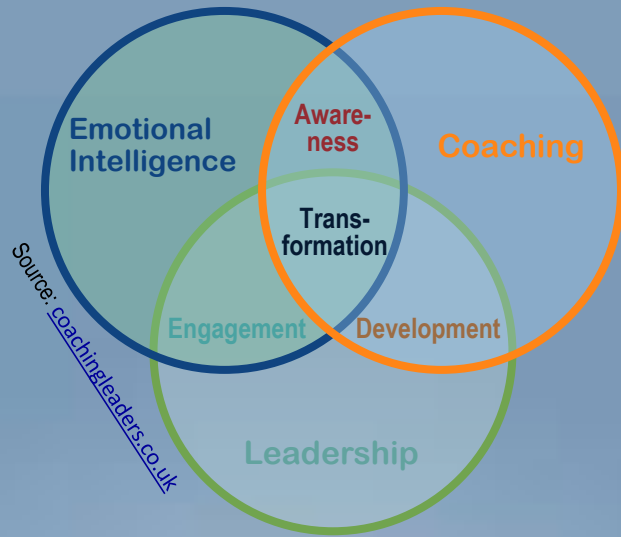
Relationship between Agile & DevOps

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)

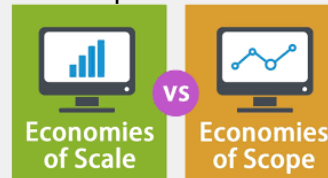
Six Sigma & Mass Production
(optimize resource *utilization* & minimize *variation/change*)



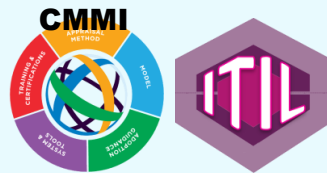
Stage & Gate
(program *compliance*, process *control*)



[Physical] **Economies of Scale**
(one size [process/tool] fits *all*)

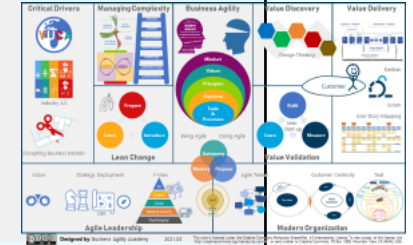


CMMI & ITIL-based
process+metrics

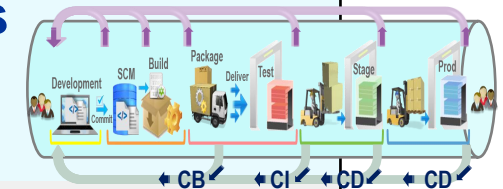


To (Agile Product/Service Delivery)

Agility, Collaboration & Learning
(optimize *knowledge-creation* & minimize *the economic impact* of variation/change)



D2D [Discovery-to-Delivery] Pipelines
(streamlined/flexible *flow* to *adapt/pivot*)



[Digital] **Economies of Scope**
(complex systems, product-lines, start-ups)

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

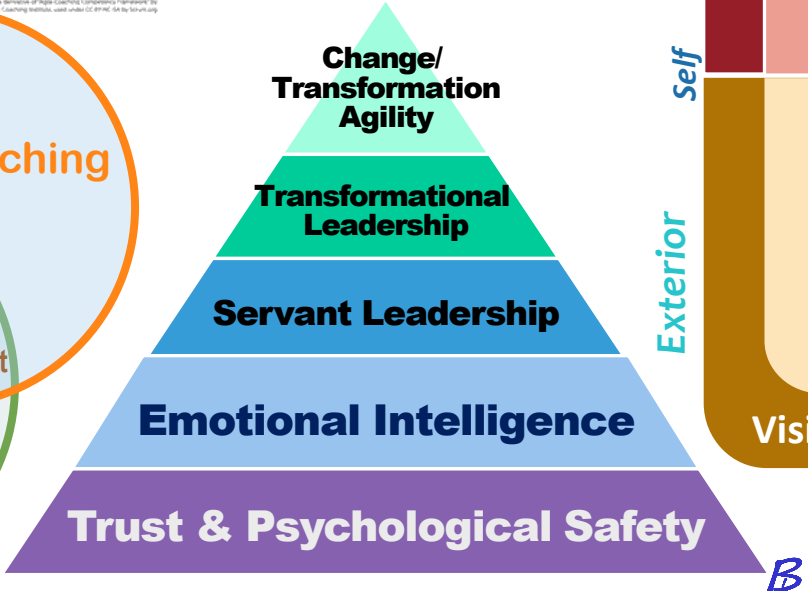
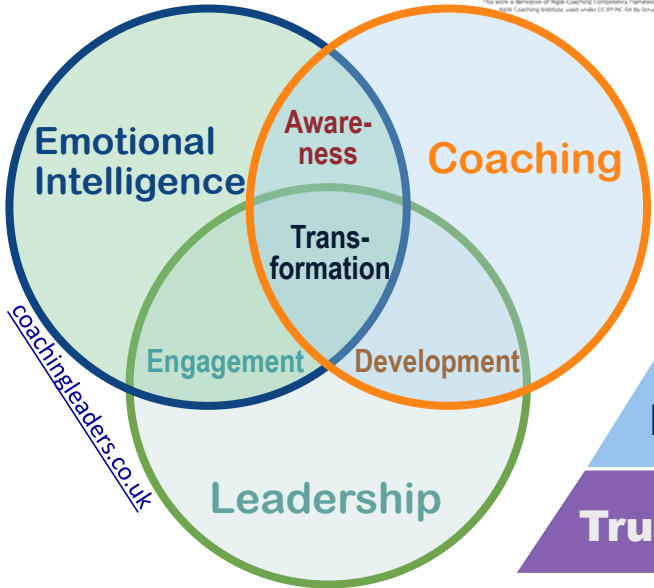
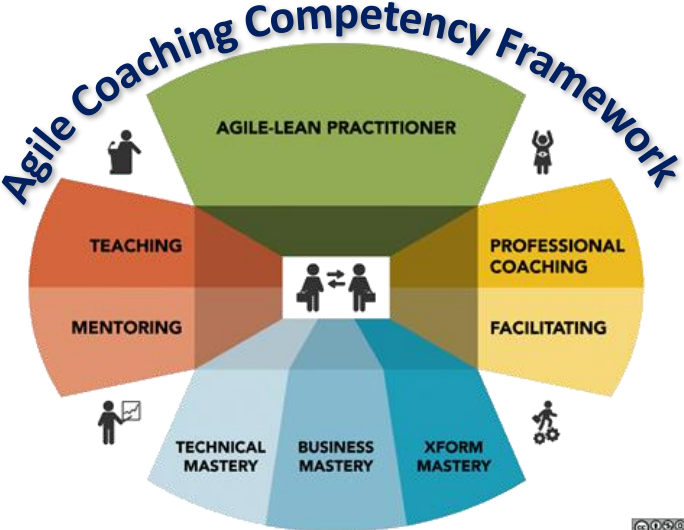
Isolated/decoupled, collaborative ↔ closely coupled, contractual



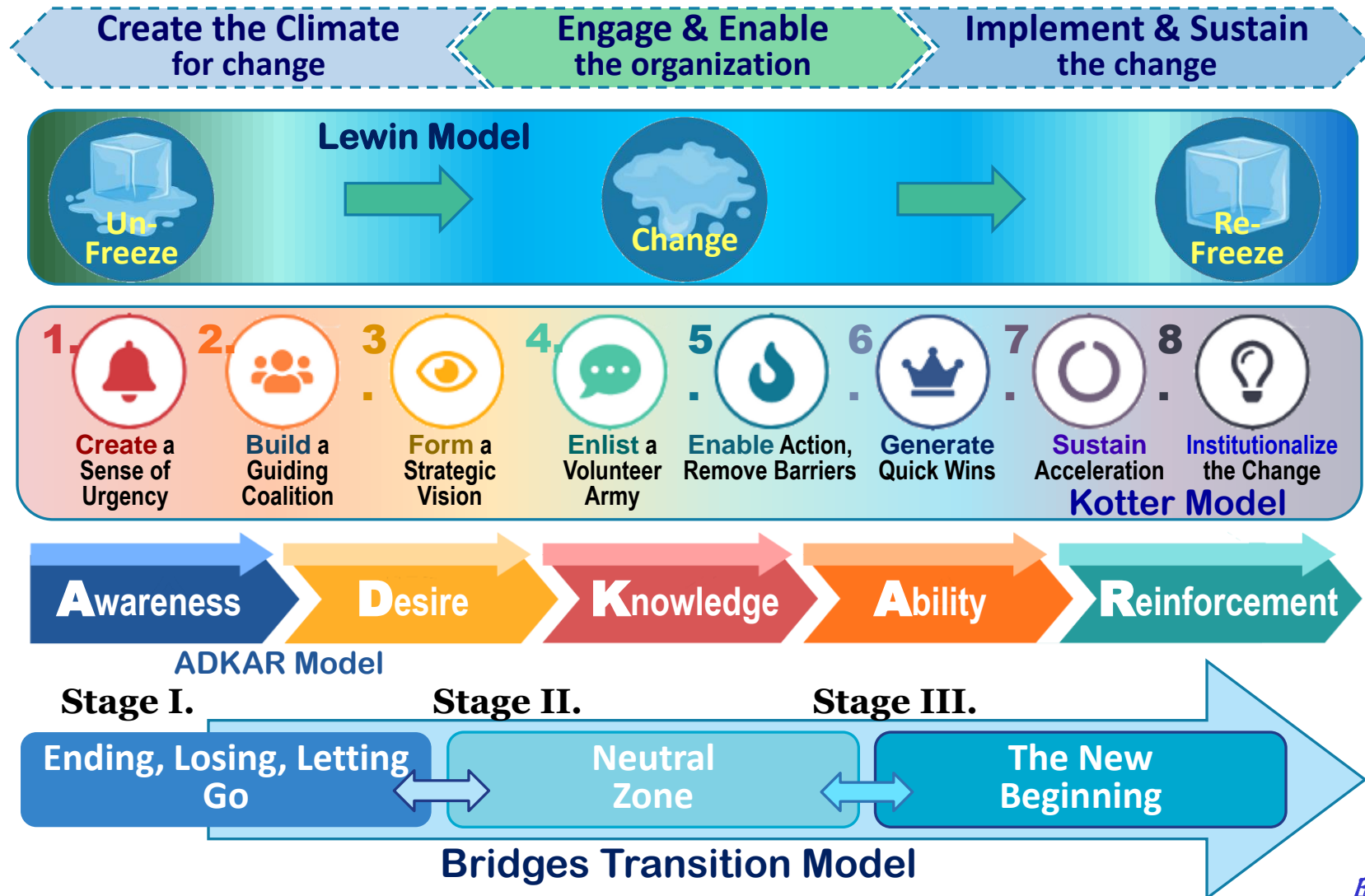
Compliance/Criticality

Low risk ↔ Critical, audited

Integral Agile Leadership & Coaching

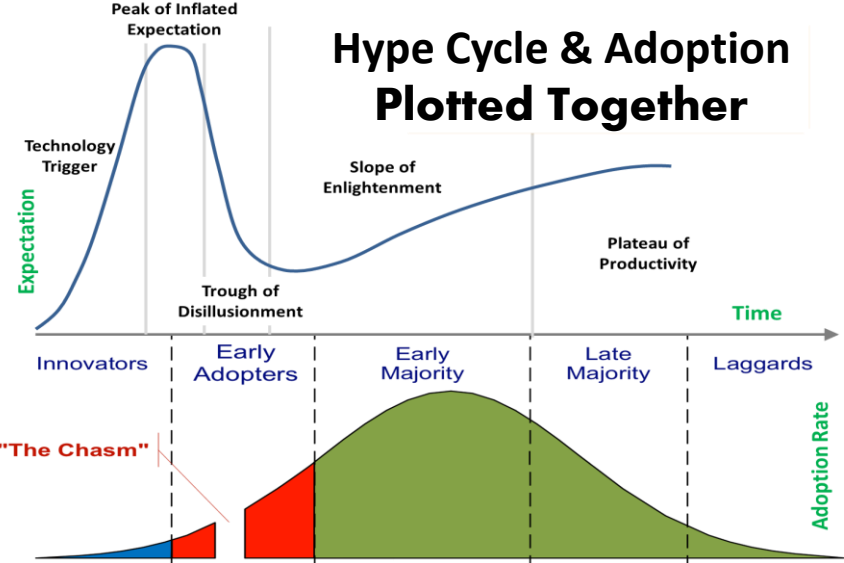


Transformation/Change Models



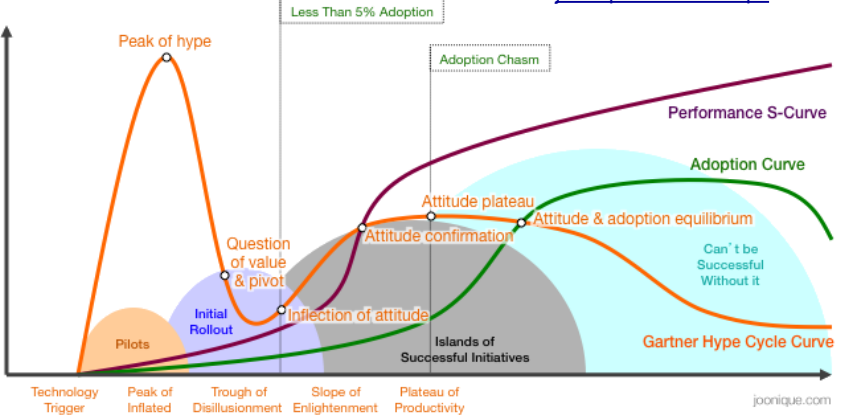
Change & Adoption Curves

Source: setandbma.wordpress.com



Gartner Hype, Performance, Adoption, & Scopes
Dynamic Relationships

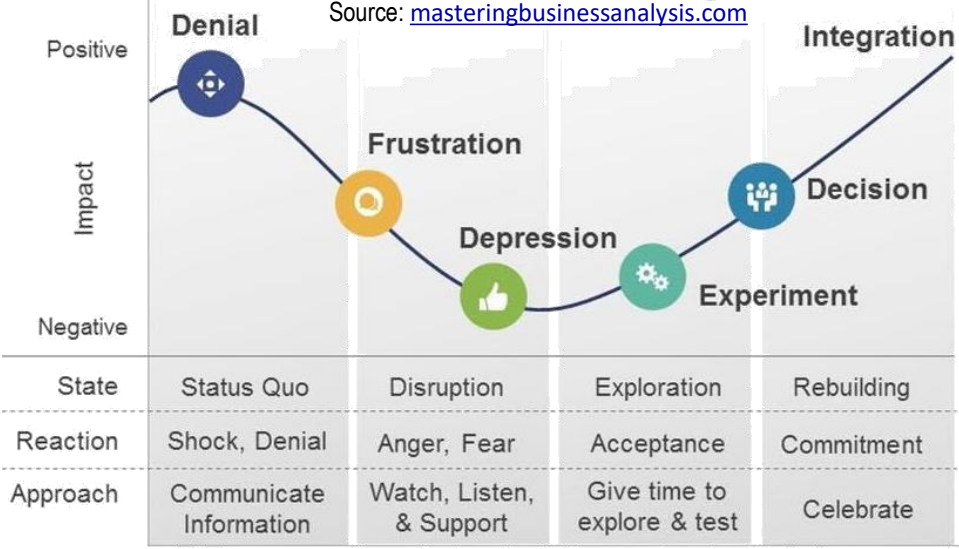
Source: joonique.com/startups



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

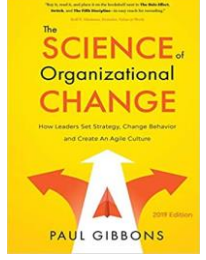
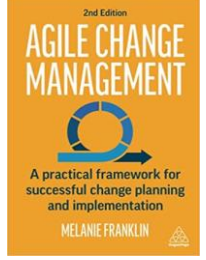
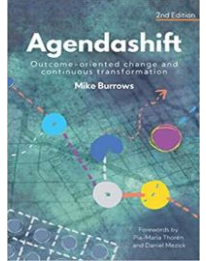
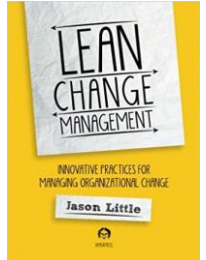
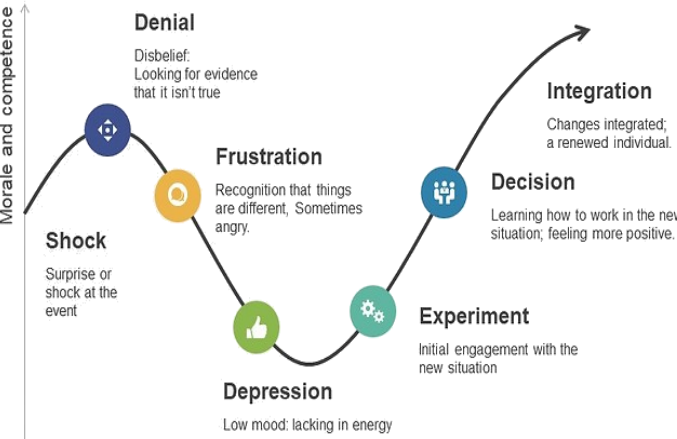
The Kübler-Ross Change Curve

Source: masteringbusinessanalysis.com



The Kübler-Ross Change Curve

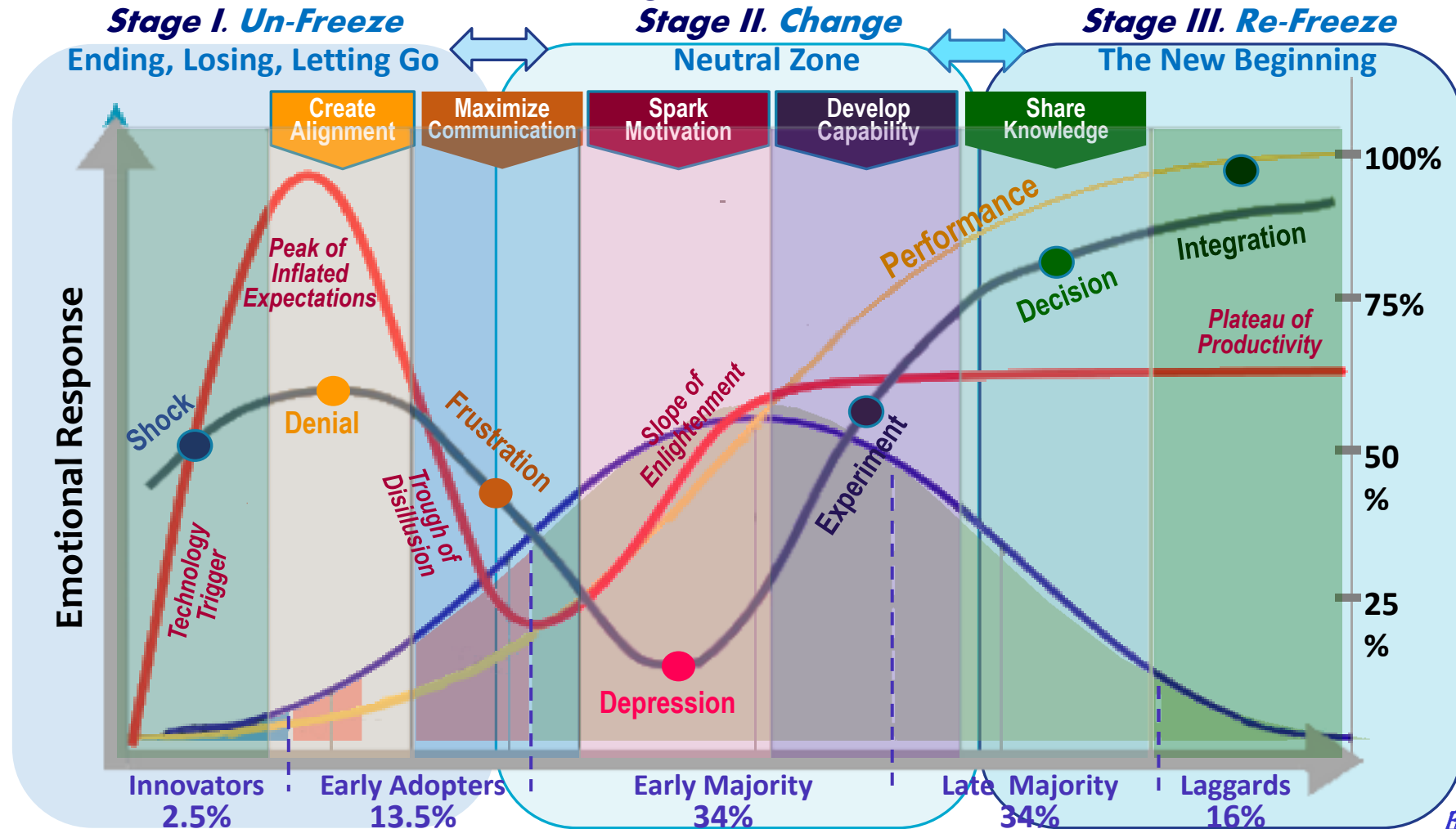
Emotional Response to Change



[Combined] Transformation & Change Curves

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

Lewin + Bridges Transition Model

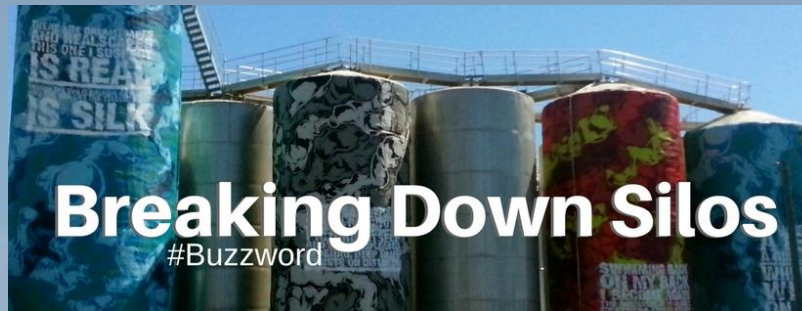
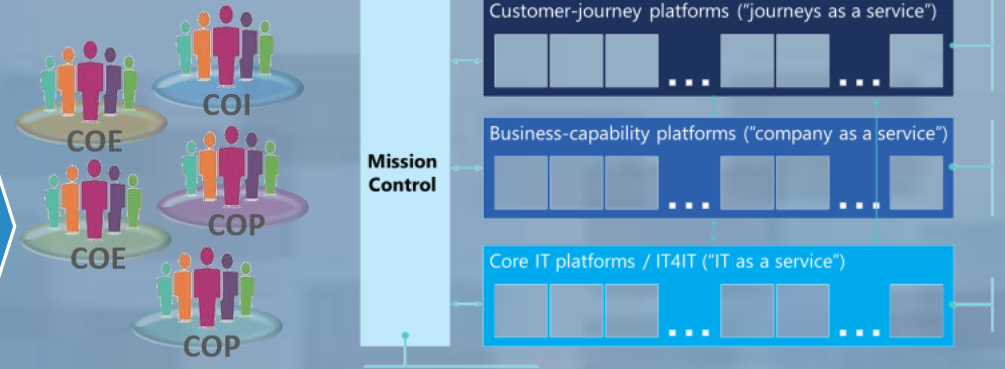


Business Agility Transformation

DevOps
Transformation

Agile
Transformation

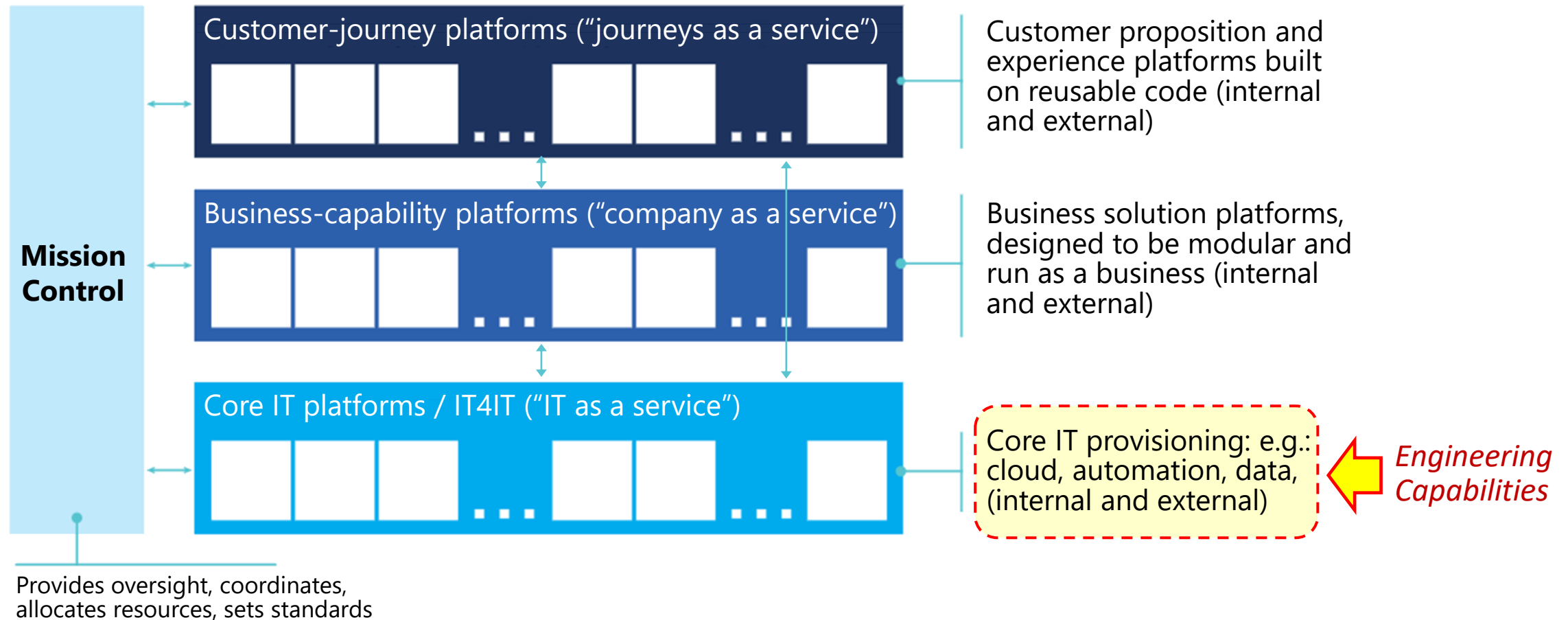
Digital
Transformation



Digital+Agile+DevOps Transformation (Operating Model & Framework)

Digital Platform Operating Model – (Agile Business Ecosystems)

Platforms are grouped into three broad areas



Source: <https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-platform-play-how-to-operate-like-a-tech-company>

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

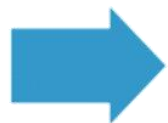
FORRESTER RESEARCH

The Transition From Silos To Product-Centric Teams

DevOps: The CIO's Guide To Velocity

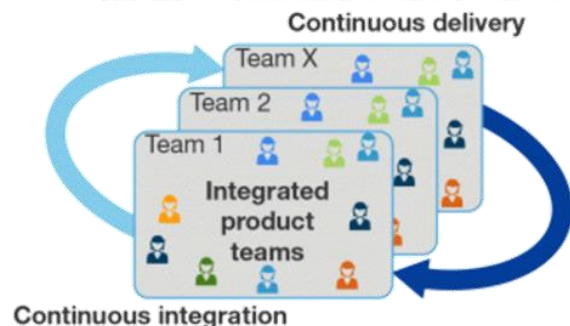
Teams organized by function:

- Silo information.
- Stymie collaboration.
- Reduce customer focus.

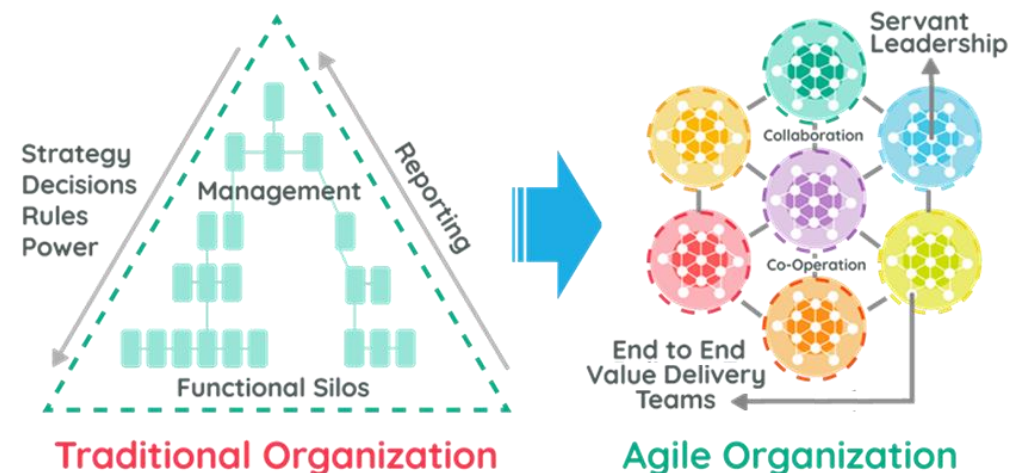
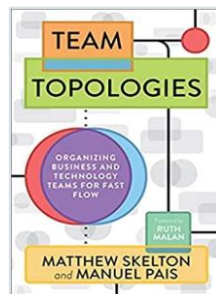
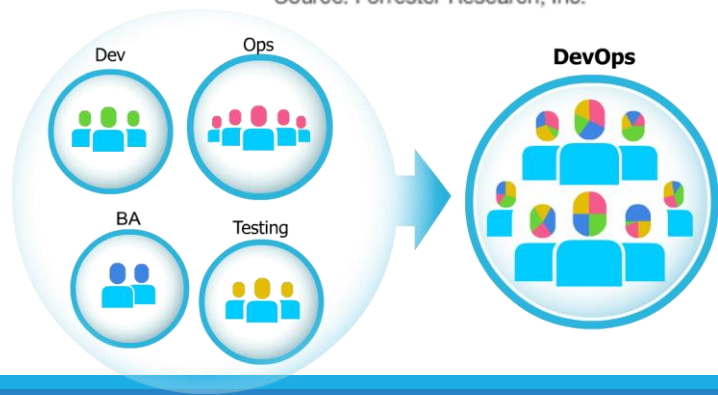


Product teams:

- Ease information sharing.
- Improve response time.
- Maintain customer focus.



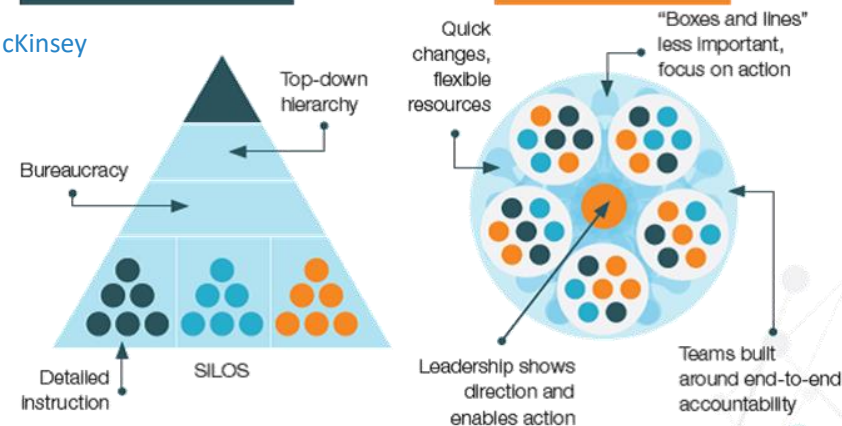
Source: Forrester Research, Inc.



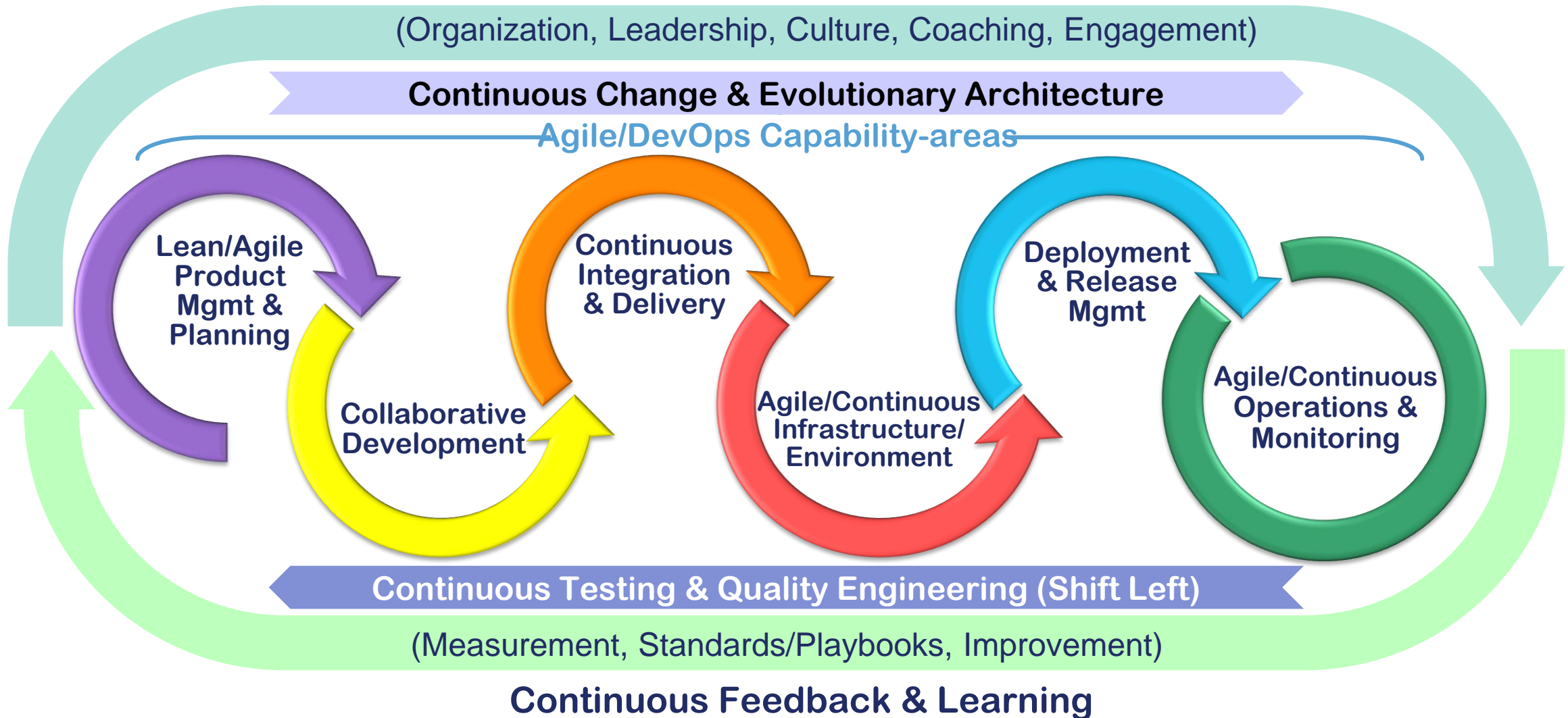
From organizations as "machines" ...

... to organizations as "organisms"

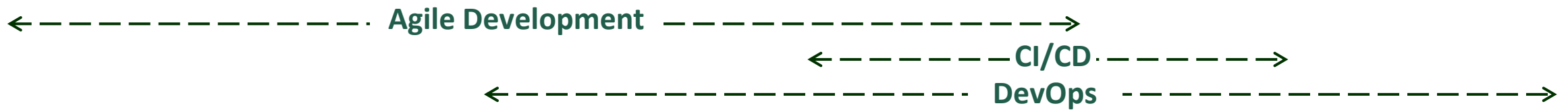
Source: McKinsey



Lean-Agile/DevOps Integrated Delivery Framework

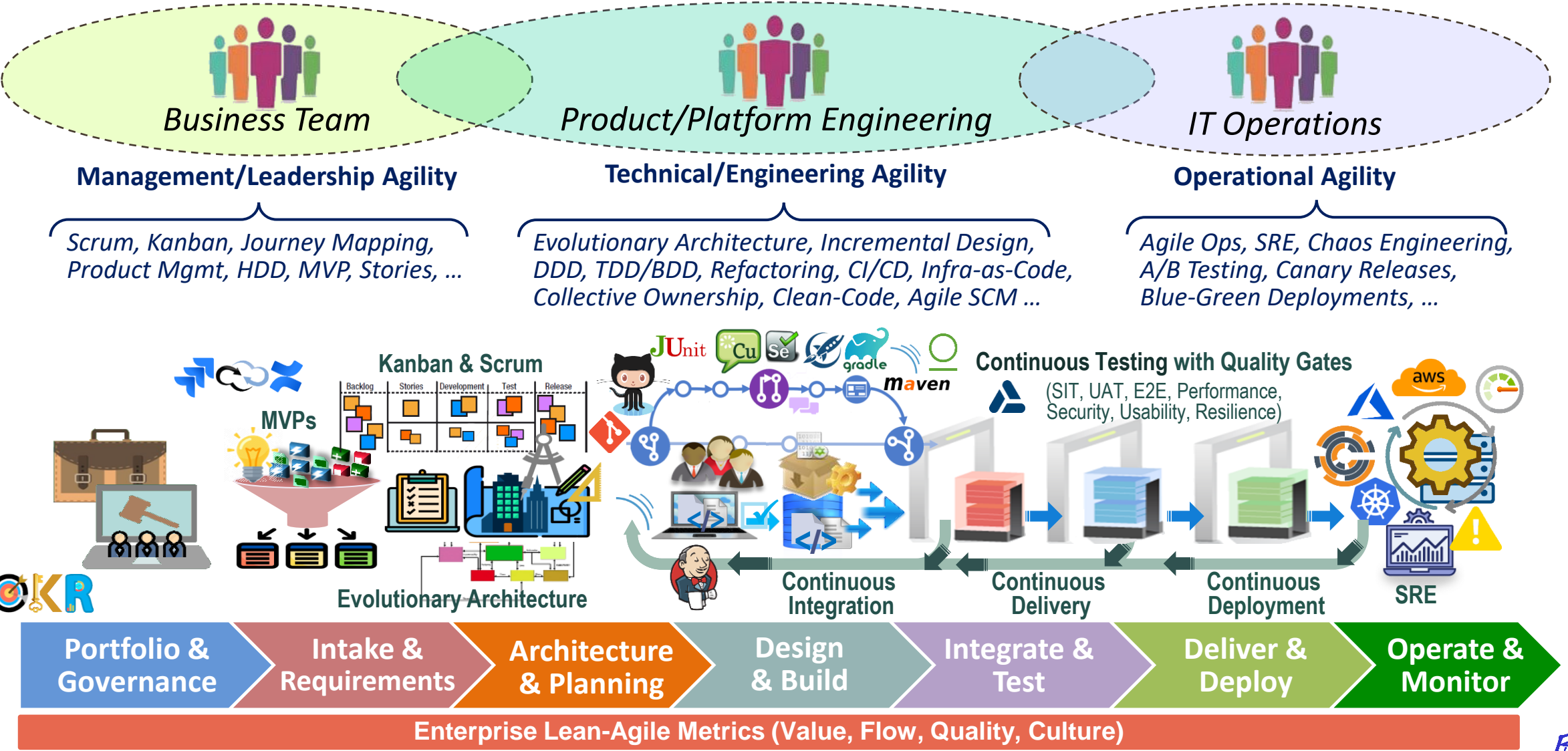


IT Agility (across Mgmt, Engineering & Operations)



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

Lean-Agile & DevOps Enablement Services - Alignment



LeAD CoDE -- Lean-Agile & DevOps Center of Digital Enablement

Purpose

Lead, grow & transform an Agile & DevOps ecosystem and culture that digitally enables product-teams to maximize predictable, efficient delivery of customer-valued products & services utilizing standards, metrics, automation of solutions, and the processes, principles, and practices necessary for the deployment & support of those product & services.

- Lead adoption and transformation of LeAD mindset, methods, practices & pipelines
- Co-create and enable business & technical agility
- Continually advance & improve capabilities/products

Benefits

Successful Lean-Agile & DevOps adoption and transformation has been correlated with high performing IT Organizations, resulting in:

- **5X** lower change failure rate
- **46X** more frequent deployments
- **96X** faster recovery from failures
- **440X** faster lead times
- More adaptive to change
- Increased employee engagement & retention

DevOps Tools



Frameworks & Practices



Services/Capabilities

Transformation/Adoption Coaching

- Agility @ Scale (SAFe, LeSS, DA, etc.)
- Agile/DevOps Organization Design
- Mindset, Principles, Behaviors & Culture
- DevOps, Scrum, XP, Kanban, etc.
- Agile Product Mgmt & Release-Trains
- Agile Roadmapping, Planning/Estimation

Patterns & Practices Coaching

- Agile/DevOps Integrated Framework
- Agile Architecture & Design
- Retrospective/Standup Techniques
- Version Control, Branching & Toggling
- CI/CD, Release/Deploy, Agile Infrastructure
- TDD, BDD, ATDD, SBE, HDD, MVP & MVA
- Agile/DevOps Col, CoPs, and CoEs

Metrics and Assessment

- Agile/DevOps Dashboard Metrics
- Team/Program Health & Technical Debt
- Assess Capabilities & Mastery/Maturity

Tool Onboarding & Templates

- Atlassian & MS (Azure DevOps) tools
- Project Setup (workflows, fields, boards)
- Delivery Pipelines & Quality Gates
- Git Branching Models

Thank You!