State of ITSM *and…* 2021

#askitsm

@ITSMAcademy

info@itsmacademy.com

www.itsmacademy.com
www.itsmprofessor.net

ITSM Academy
...educate & inspire®

Donna Knapp
@ITSM_Donna

Welcome!

ITSM Academy

- Full service provider of IT Service Management (ITSM) education and advice
- Accredited and sustainable education and training
  - ✓ ITIL®
  - ✓ DevOps
  - ✓ Employee Experience
  - ✓ Process Design (CPDE)
  - ✓ Lean/Value Stream Mapping
  - ✓ Agile Service Management

Donna Knapp

- Author
- Curriculum Development Manager
- Certified Process Design Engineer
- ITIL Expert, ITIL Managing Professional, ITIL Strategic Leader
- DevOps Foundation, DOL, CDA, DSOF, DTE
- Certified Scrum Master
- Certified Agile Process Owner
- Certified Agile Service Manager
- VeriSM Foundation
- Certified in Knowledge-Centered Support (KCS) Principles
- Certified ISO/IEC 2000 Consultant/Manager

ITIL® is a registered trade mark of AXELOS Limited.
VeriSM™ is a registered trademark of IFDC.

Transformations are Underway

- Digital transformation
- Technology transformation
- Agile transformation
- DevOps transformation
- Service management transformation
- Cultural transformation

TRANSFORMATION
CURRENT STATE → FUTURE STATE
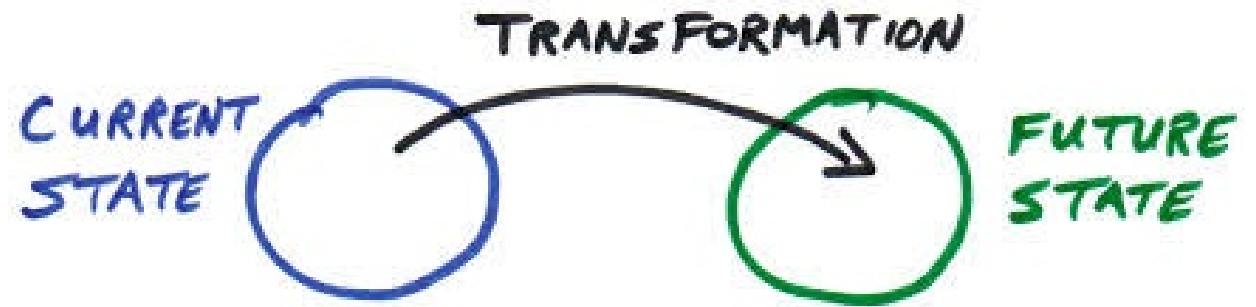
"A process of profound and radical change that orients an organization in a new direction and takes it to an entirely different level of effectiveness."
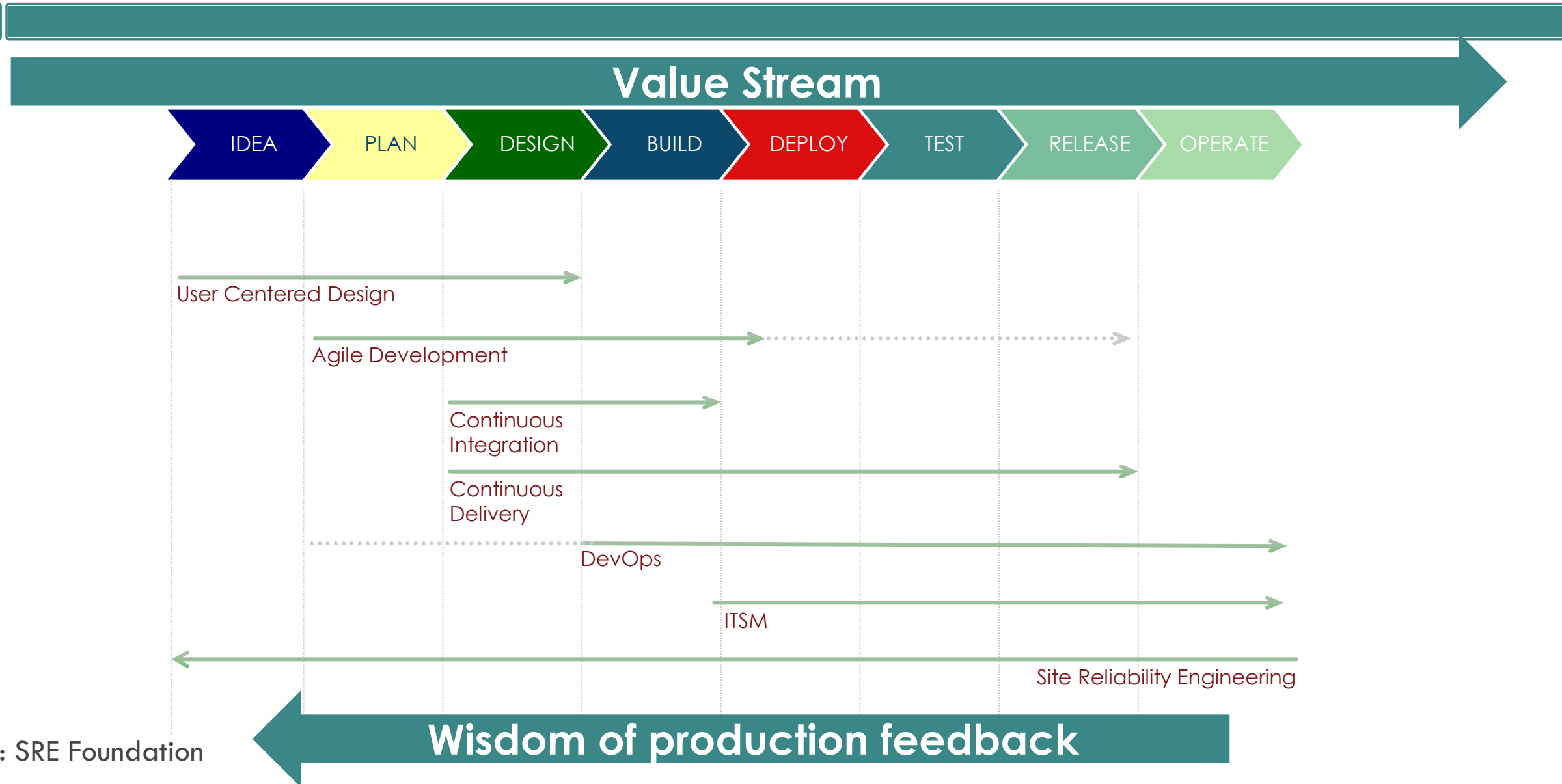
Business Dictionary
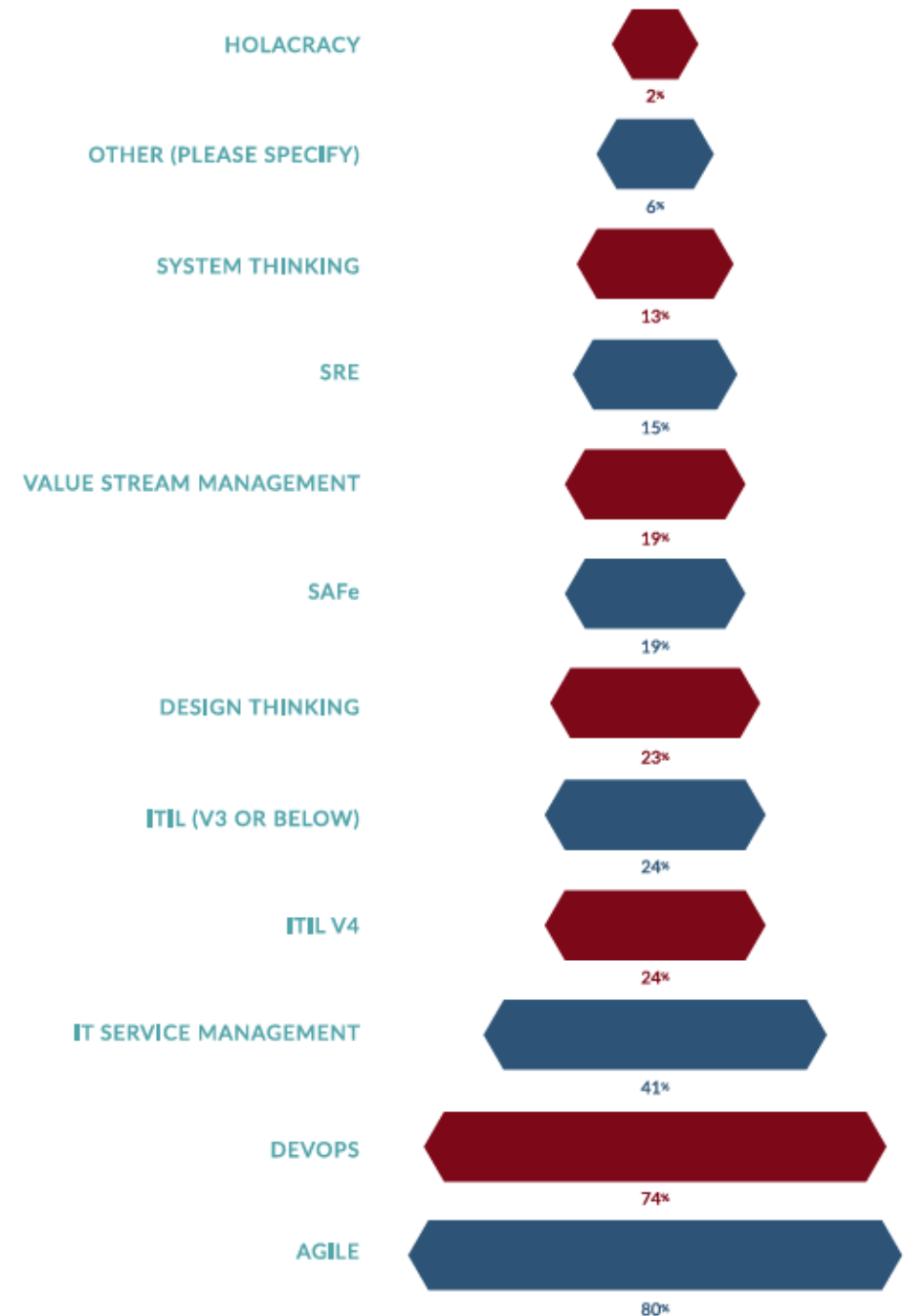
The Impact of COVID-19

- 69% of boards of directors say that the effects of the pandemic crisis, the economic crisis and the social crisis are accelerating digital business initiatives (Gartner)

Initiative	Percentage
Accelerate digital business initiatives	69%
Increased focus on improving operational excellence through digital business	60%
Increased focus to drive higher levels of cost optimization through digital initiatives	50%
Increase investment in digital initiatives business	48%
Increased focus to completely transform the business model through digital business	39%
No change in enterprise behavior with respect to digital business	8%
Reduce investment in digital business	3%
Decelerate digital business initiatives	3%
We do not have a digital business initiative	1%

Framework Alignment is Paying Off

Value Stream

IDEA	PLAN	DESIGN	BUILD	DEPLOY	TEST	RELEASE	OPERATE

User Centered Design

Agile Development

Continuous Integration

Continuous Delivery

DevOps

ITSM

Site Reliability Engineering

Wisdom of production feedback

Source: SRE Foundation

UPSKILLING 2020 | Enterprise DevOps Skills Report
DevOps Institute

servicenow — Platinum Founding Sponsor
CloudBees — Gold Sponsor
bmc — Silver Sponsor
HCL Software DevOps / Micro Focus — Bronze Sponsor

HOLACRACY — 2%
OTHER (PLEASE SPECIFY) — 6%
SYSTEM THINKING — 13%
SRE — 15%
VALUE STREAM MANAGEMENT — 19%
SAFe — 19%
DESIGN THINKING — 23%
ITIL (V3 OR BELOW) — 24%
ITIL V4 — 24%
IT SERVICE MANAGEMENT — 41%
DEVOPS — 74%
AGILE — 80%

The Role of IT Service Management (ITSM)

ITSM and Digital Transformation

- IT service management is an important part of digital transformation
- The increasing reliance of businesses on technology means a smarter approach is needed

Accelerating ITSM

- The 'what' and 'why' of ITSM hasn't changed

- It's the 'how' that MUST change

- Agile, Lean, DevOps, SRE… represent new ways of thinking and working

- ITSM can use these same new ways of thinking and working to adapt

We've got to…

- Speed up

- Streamline

- Integrate

- Automate

ITSM Trends

- Experience matters

- ITIL 4 is gaining acceptance

- Enterprise service management is gaining ground

- Reducing toil and automation have become major priorities

- We're learning how to focus on outcomes

About ITIL® 4

- Co-creation of value
- Best practices *and* exploratory ways of working
- Principles-based

- Value-stream centric
- Alignment with adjacent ways of working
  - ✓ Agile, Lean, DevOps, SRE…
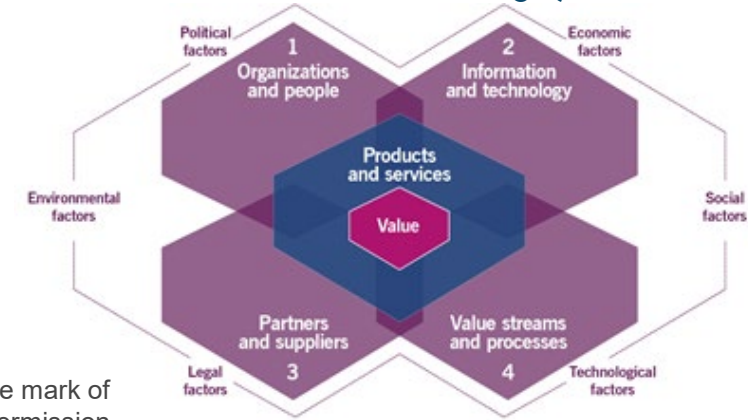
Service Value System
(Replaces the Service Lifecycle)
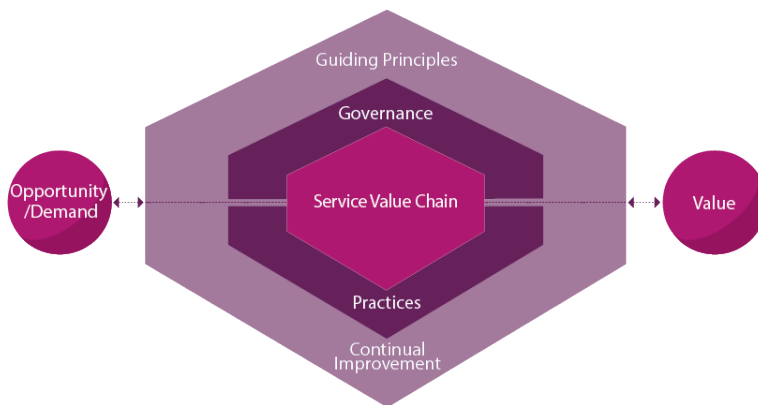
Service Value Chain
(Flexible and adaptive)

Four Dimensions
(Evolution of the 4 Ps of Service Design)
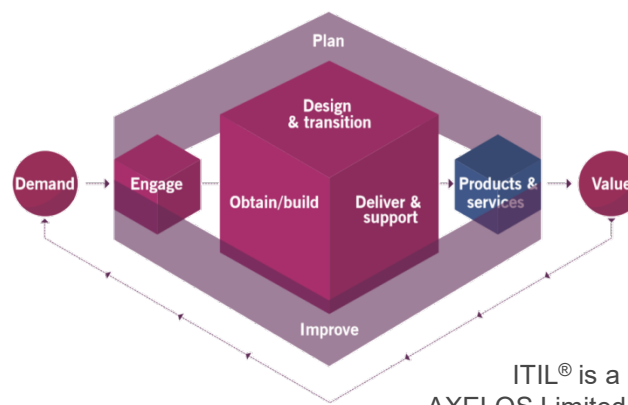
ITIL® is a registered trade mark of AXELOS Limited, used under permission of AXELOS Limited. All rights reserved.

ITIL v3 Retirement

AXELOS has announced the following:

- ITIL v3 Foundation (English) to be discontinued as of 1 July 2021
- ITIL v3 Intermediates (English) to be discontinued as of 1 January 2022
- ITIL 4 Managing Professional Transition examination (English) to be discontinued as of 1 July 2022
- Translated guidance and examinations discontinuation dates will be announced on a case-by-case basis based on the corresponding product release dates for the ITIL 4 higher modules

ITIL Will Come Together in the End
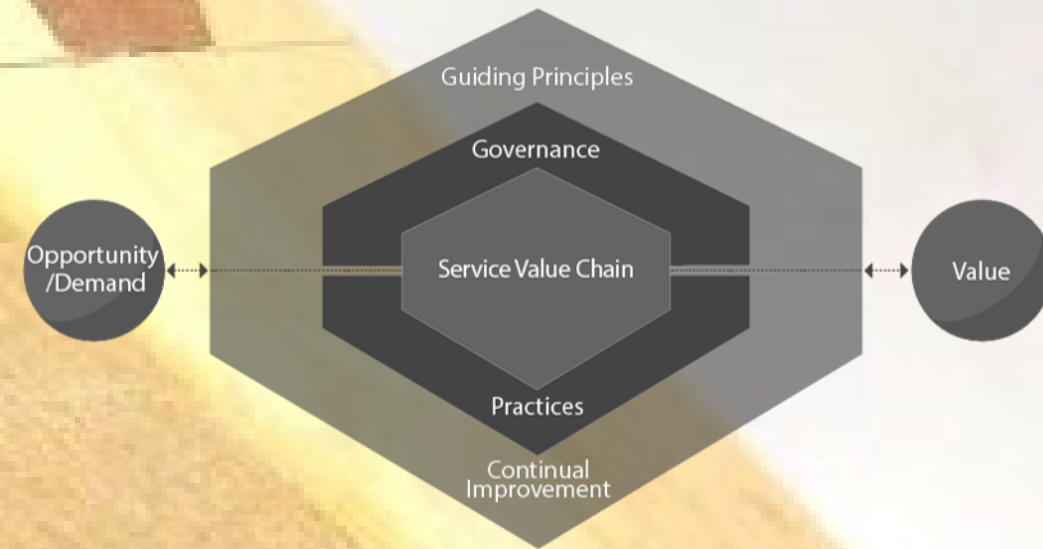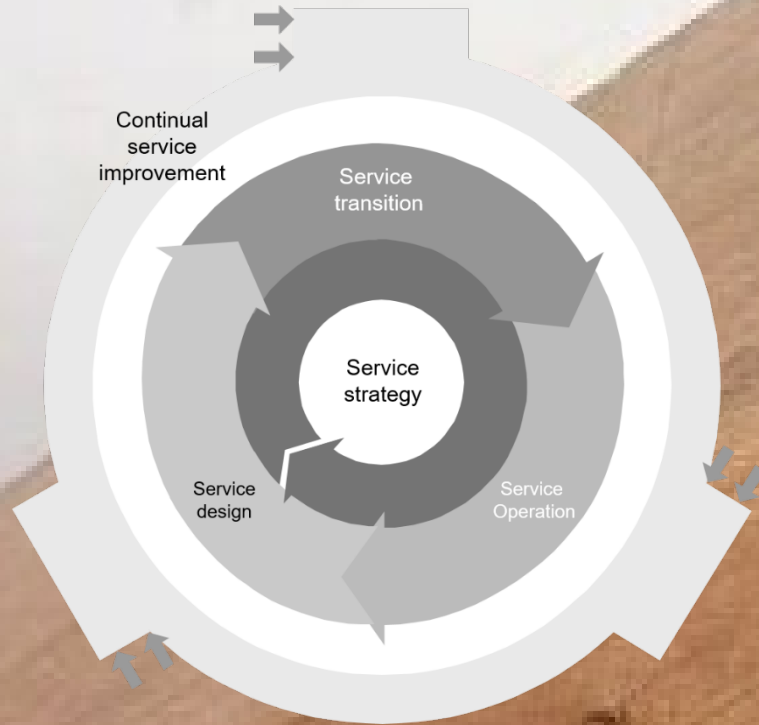
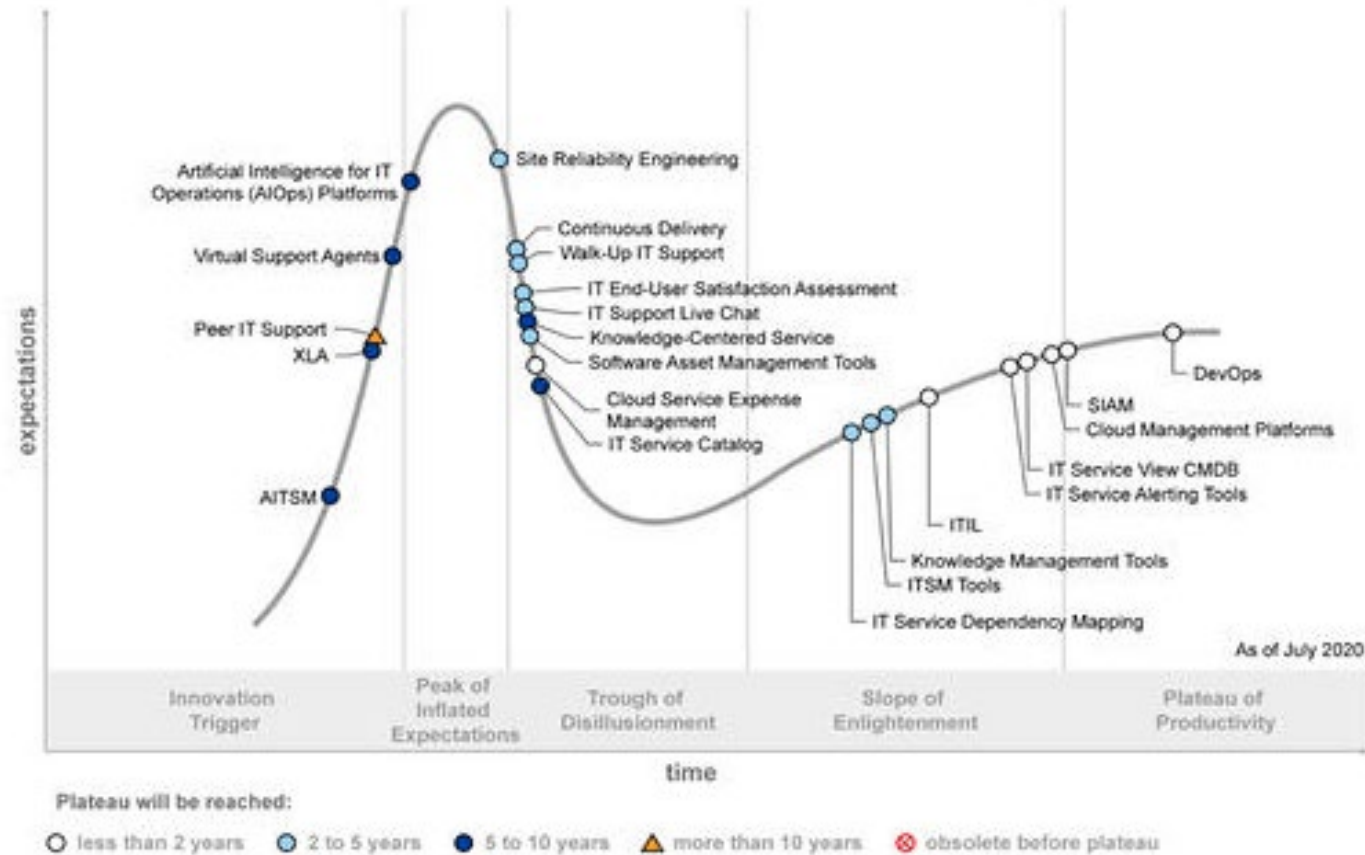Forge your own way through continual improvement.

The State of DevOps

DevOps is an organizational and cultural movement that aims to increase software delivery velocity, improve service reliability, and build shared ownership among software stakeholders.

Gartner Hype Cycle

Hype Cycle for ITSM, 2020

DevOps Adoption

Q Which of the following best describes the DevOps journey within your company today?

- Applying DevOps at Project Level or Multiple Projects
- Applying DevOps Across Our Enterprise
- Planning Stage and/or Initial Stage for Our Enterprise (Planning Horizon within the Next 12 Months)
- We Have Not Engaged in DevOps
- Plan to Leverage DevOps in the Future (Planning Horizon Longer than 12 Months Out)
- Other
- Consciously Avoiding DevOps
- Previously Attempted and Failed

22.6% are in planning stage
6.6% have not adopted DevOps

N 906

| 42% | 23% | 16% | 7% | 6% | 4% | 1% | 1% |
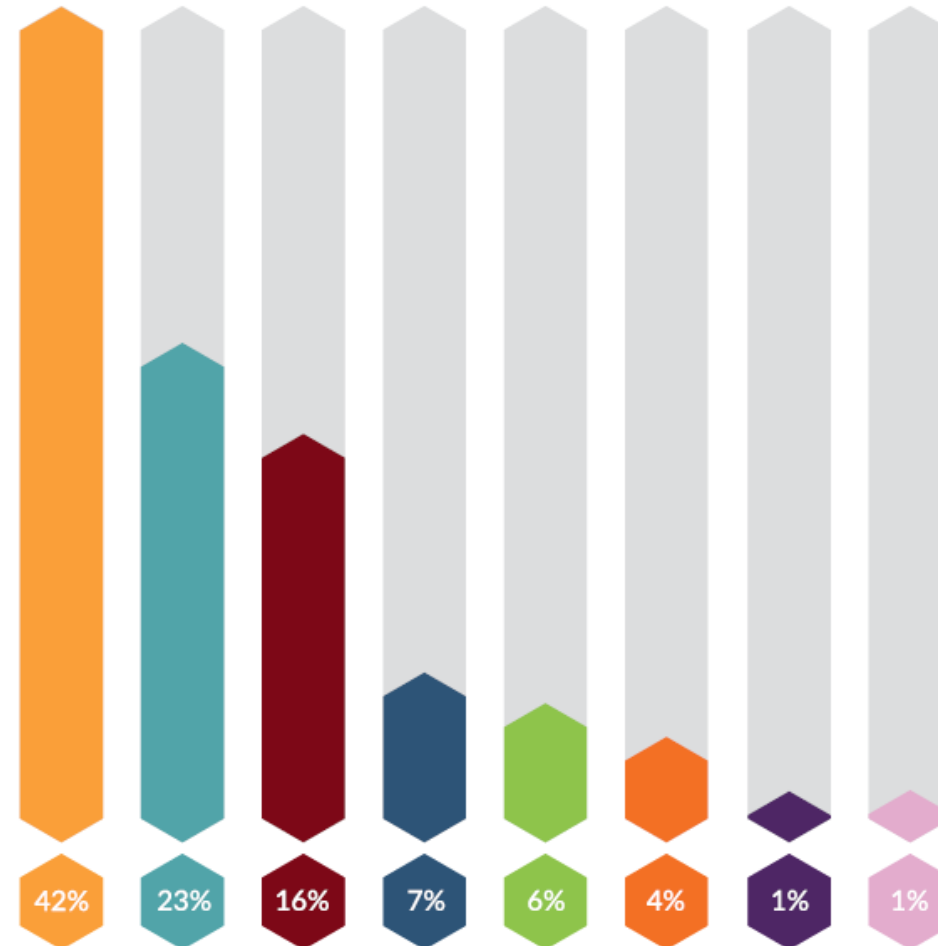
DevOps enables organizations to reliably produce quality changes at speed.

Version control

Dark launches

Continuous testing

CI/CD

DevSecOps

Feature toggles

Peer reviews

Compliance as code

Blue/green deployments

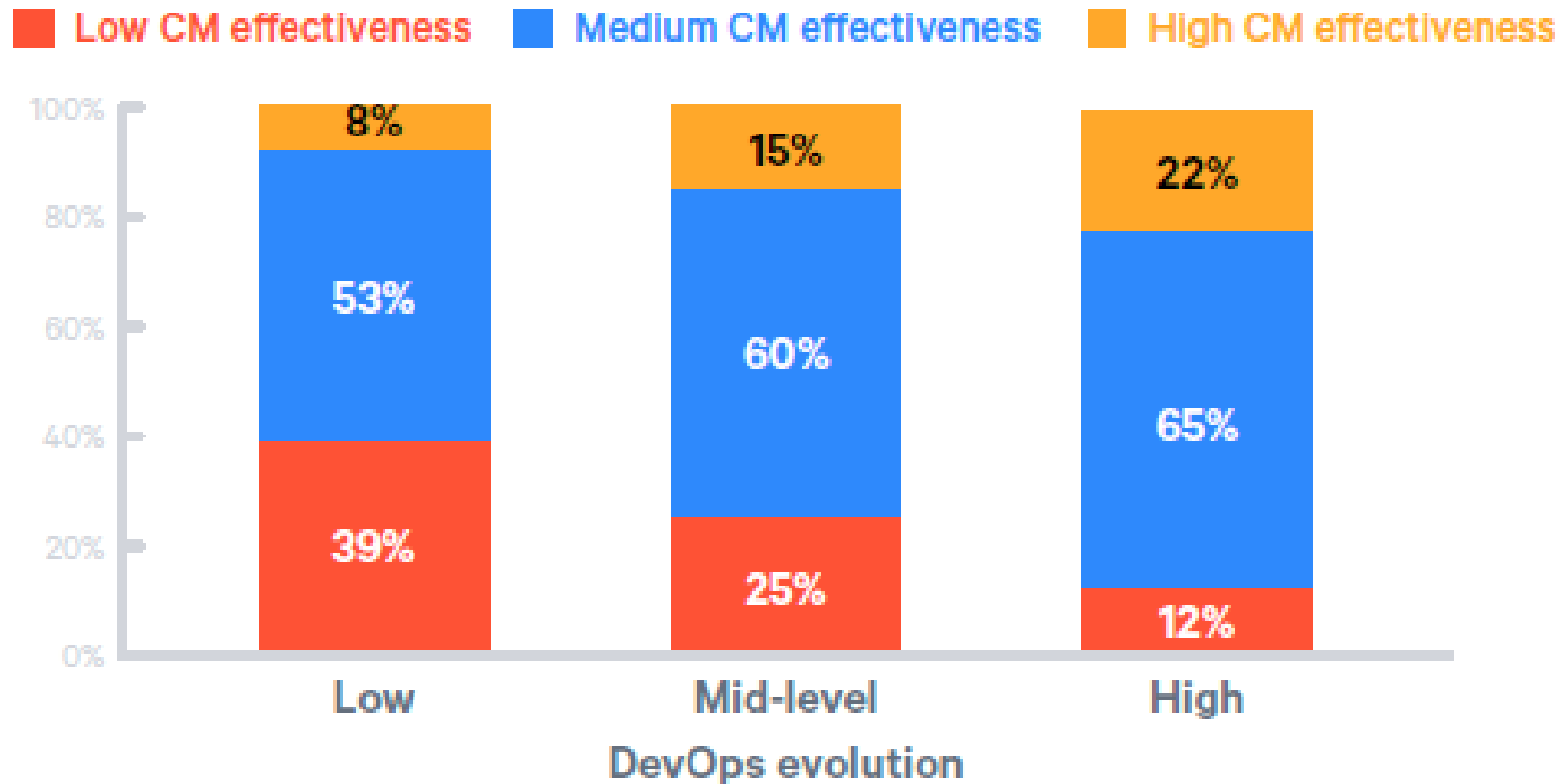*DevOps requires that ITSM lighten up!*

REPEAT AFTER ME…

MVP

AKA – Minimum Viable Process

DevOps and Change Management

Change management effectiveness and level of DevOps evolution

■ Low CM effectiveness ■ Medium CM effectiveness ■ High CM effectiveness

DevOps evolution	Low	Mid-level	High
High CM effectiveness	8%	15%	22%
Medium CM effectiveness	53%	60%	65%
Low CM effectiveness	39%	25%	12%

DevOps evolution
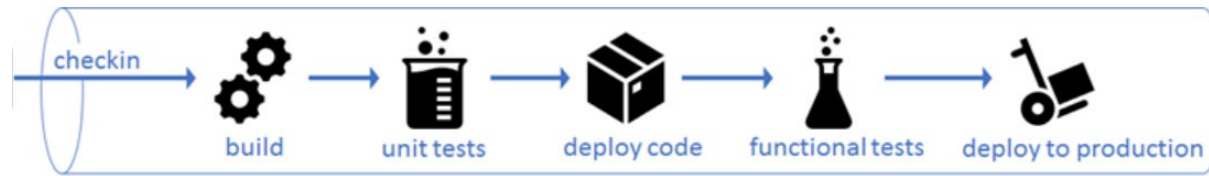
About that CAB…

2014 STATE OF **DEVOPS** REPORT

"We found that when external approval (e.g., change approval boards) was required in order to deploy to production, IT performance decreased. But when the technical team held itself accountable for the quality of its code through peer review, performance increased."

"Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place."
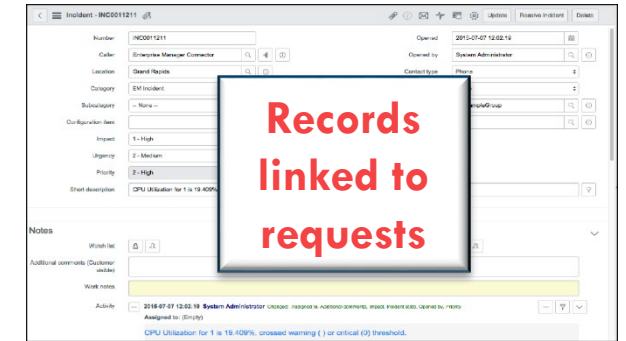
W. Edwards Deming

#DonnaSaidDeming

Make It Easy for People to Do the Right Thing!

Track related incidents and service requests

Backlog

checkin → build → unit tests → deploy code → functional tests → deploy to production

Pipeline

Records linked to requests

Connect features and user stories to change records

JIRA

VERSIONONE®
Accelerate Software Delivery

servicenow

bmc

Cherwell

An important point…

- The need for DevOps arose from the increasing success of Agile software development and from applying Lean principles to the IT value stream

- Service management plays a crucial role and the "lack of a service management approach is hurting competitiveness"*

DevOps practitioners are 'doing' ITSM, they're just not calling it that.

*Source: Delivering Value to Today's Digital Enterprise: The State of IT Service Management, 2017
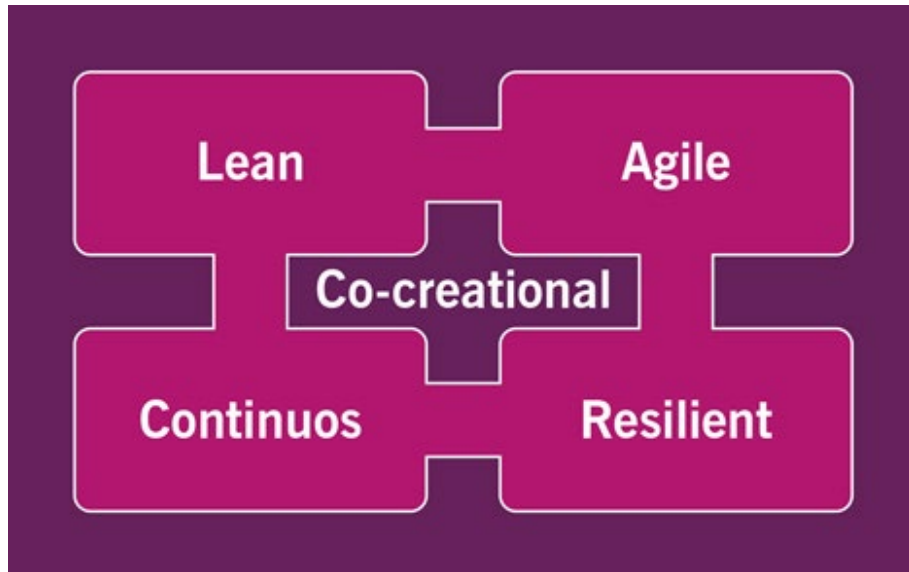
ITIL *4 and…*

Dominant characteristics of high velocity approaches include

- **Lean** helps to improve flow and reduce waste (via techniques such as value stream mapping and Kanban)
- **Agile** adds close and iterative collaboration with users
- **Resilient** maintains workable availability and performance (via approaches such as site reliability and chaos engineering)
- **Continuous** ensures fast and reliable deployment (e.g., continuous integration, delivery, deployment, and testing)

DevOps builds on these characteristics by emphasizing close collaboration between the roles of software development and technical operations.

Agile

"*Once an almost exclusive domain of IT, agile has now permeated almost every part of the business.*"

Mckinsey

Harnessing the Effectiveness of Extended Agile Teams

What COVID-19 has taught us about being agile

- Work on objectives, not simply tasks

- Optimize team size
  - ✓ The ideal effective team size is five to nine people

- Nurture empowered and iterative ways of working

- Embed a culture of experimentation, learning and iterating

Lean/Value Stream Mapping

"If we do not apply Lean principles, we will digitalize waste."

Thomas Walke Head of Lean Management Swisscom AG

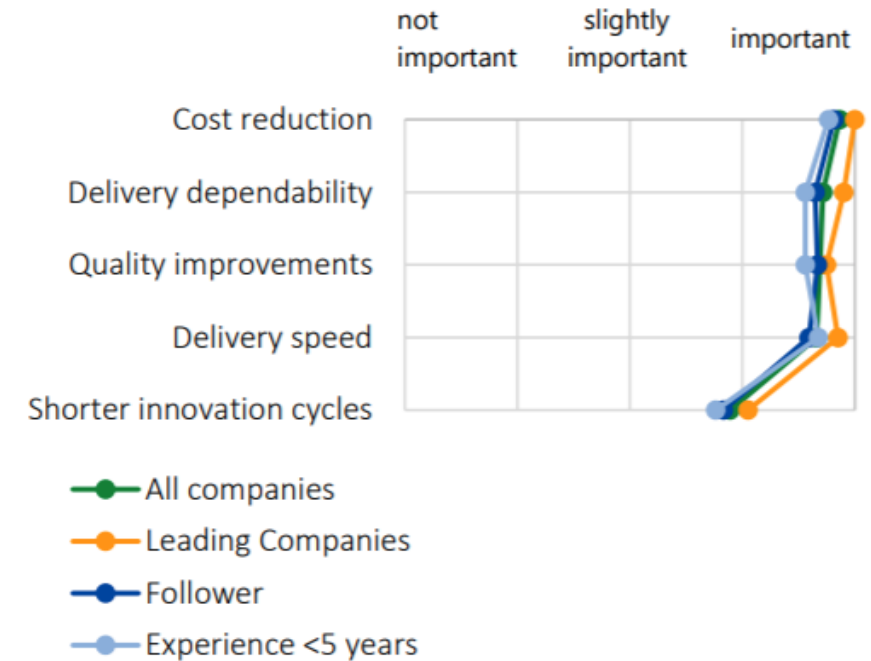# Lean Is a Mindset, Skill Set and Toolset

Lean tools have become commonplace

- Value stream mapping
- Kanban
- Toyota Kata
- A3 problem solving
- Root cause analysis

Figure 5

Which goals do you aim to achieve with your Lean efforts?

n = 75

The Rise of Site Reliability Engineering

What is Site Reliability Engineering?
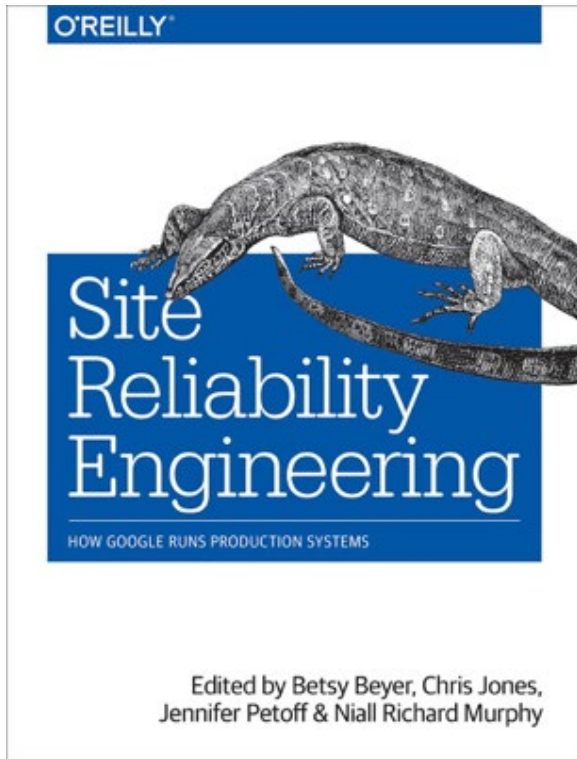
- **Site Reliability Engineering (SRE)** is a discipline that incorporates aspects of software engineering and applies them to infrastructure and operations problems

- SRE (Site Reliability Engineer) is also a job role

"What happens when a software engineer is tasked with what used to be called operations."

Ben Treynor, Google

Google defines reliability as "The probability that [a system] will perform a required function without failure under stated conditions for a stated period of time."

2020 SRE Report (Catchpoint)

We have a dedicated SRE team separate from other Ops/Admin teams
46%

The DevOps team handles the SRE activities
19%

The Operations and System Administration team is responsible for the SRE activities
16%

SRE activities are performed across the organization instead of localized to one team
13%

SRE is still new to us, we are still unclear if this needs a separate team
7%

SRE and ITSM/ITIL

- Like SRE, ITIL processes are underpinned by automation particularly during transition and operation processes as part of continuous testing and delivery

- In SRE failure is a learning opportunity, continuous learning is embedded in ITSM

- ITIL provides guidance and structure to processes such as Change, Configuration, Release, Incident and Problem Management – areas that SRE are involved in

- SRE can help with ITSM compliance activities through automation & engineering
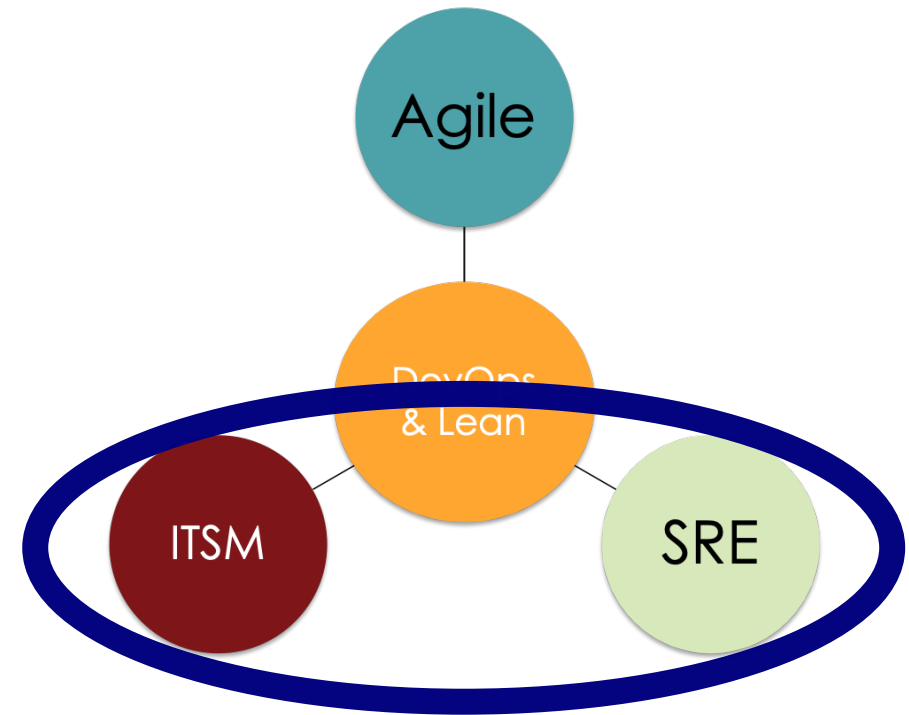
ITSM Process Models Support SRE

- Predefined procedures
  - ✓ Steps to be taken
  - ✓ Chronological order and dependencies
  - ✓ Responsibilities
  - ✓ Timescales and thresholds
  - ✓ Escalation procedures
- Define steps for handling specific types of transaction
- Ensure a defined path or timeline is followed
- Can be automated

Examples
- Change models
- Release models
- Test models
- Incident models
- Problem models
- Request models

Where We Go From Here

Not back to Normal!

The Impact of COVID-19

- Companies have accelerated the digitization of their customer and supply-chain interactions and of their internal operations by 3 to 4 years, and the share of digital or digitally enabled products in their portfolios has accelerated by 7 years (McKinsey)

- We found that the top 10 percent of companies in terms of revenue growth are more than 50 percent more effective than peers in testing, measuring, and executing based on what they've learned. (McKinsey)

The Future is Here…

We Go Forward

Embrace guiding principles

- Start now
- Start where you are
- Progress iteratively
- Continuously experiment, learn and improve

Learn from high performers

- Put the business first
- Master technology
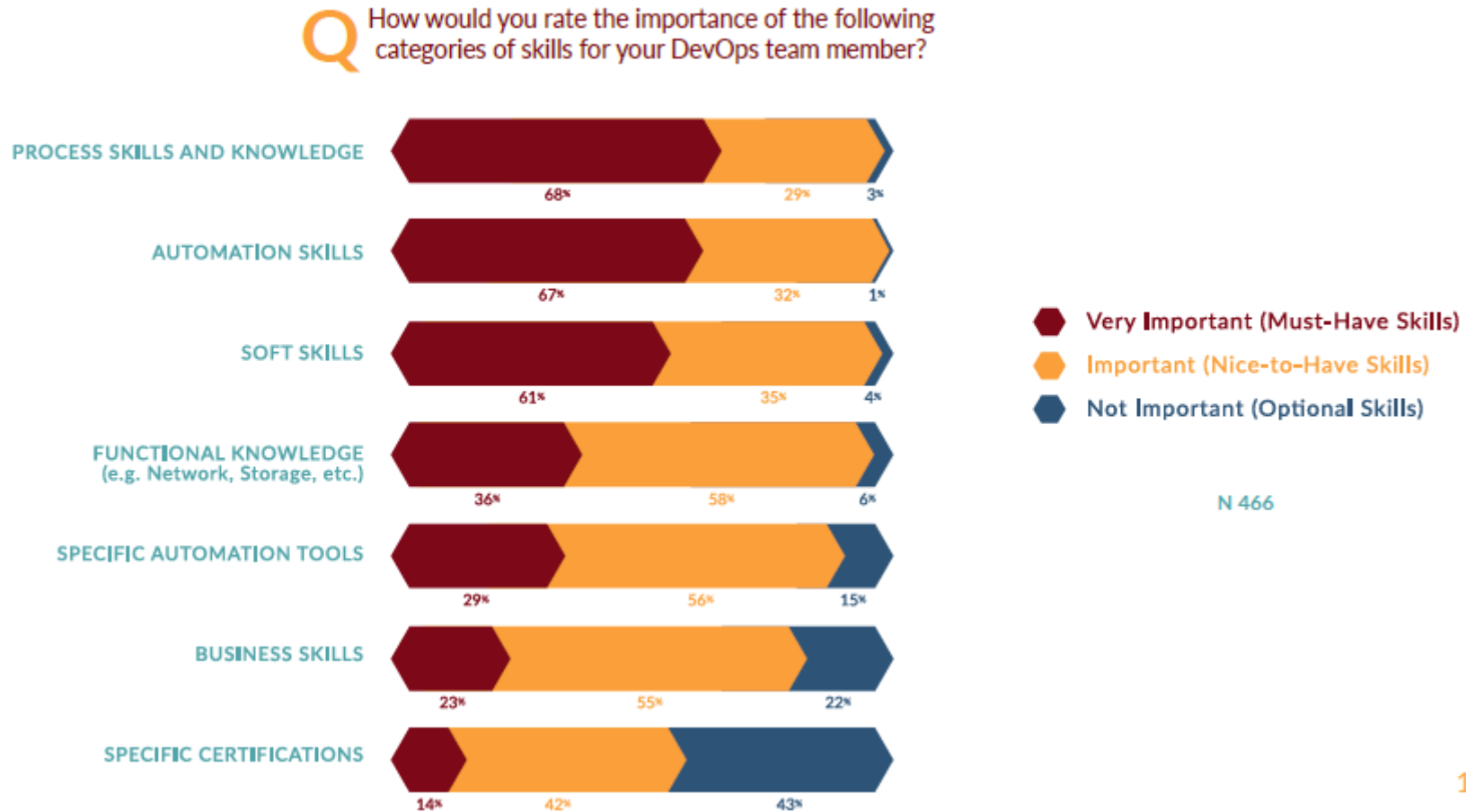- Invest in speed
- Make customers a priority
- Be proactive

Source: Atlassian/HDI Research – 5 Qualities of High-performing IT Teams

Figure out how progressive practices and emerging technologies (e.g., AI, machine learning) can augment your work to increase efficiency, improve productivity and free you up to innovate.

Hone Your Skills

Skill Categories

Q How would you rate the importance of the following categories of skills for your DevOps team member?

Category	Very Important	Important	Not Important
PROCESS SKILLS AND KNOWLEDGE	68%	29%	3%
AUTOMATION SKILLS	67%	32%	1%
SOFT SKILLS	61%	35%	4%
FUNCTIONAL KNOWLEDGE (e.g. Network, Storage, etc.)	36%	58%	6%
SPECIFIC AUTOMATION TOOLS	29%	56%	15%
BUSINESS SKILLS	23%	55%	22%
SPECIFIC CERTIFICATIONS	14%	42%	43%

Very Important (Must-Have Skills)
Important (Nice-to-Have Skills)
Not Important (Optional Skills)

N 466

Source: Upskilling 2020: Enterprise DevOps Skills Report

Just Be Human!

DevOps Humans Top **5** Skills are →

- Collaboration
- Interpersonal Skills
- Problem Solving
- Sharing and Knowledge Transfer
- Flexibility

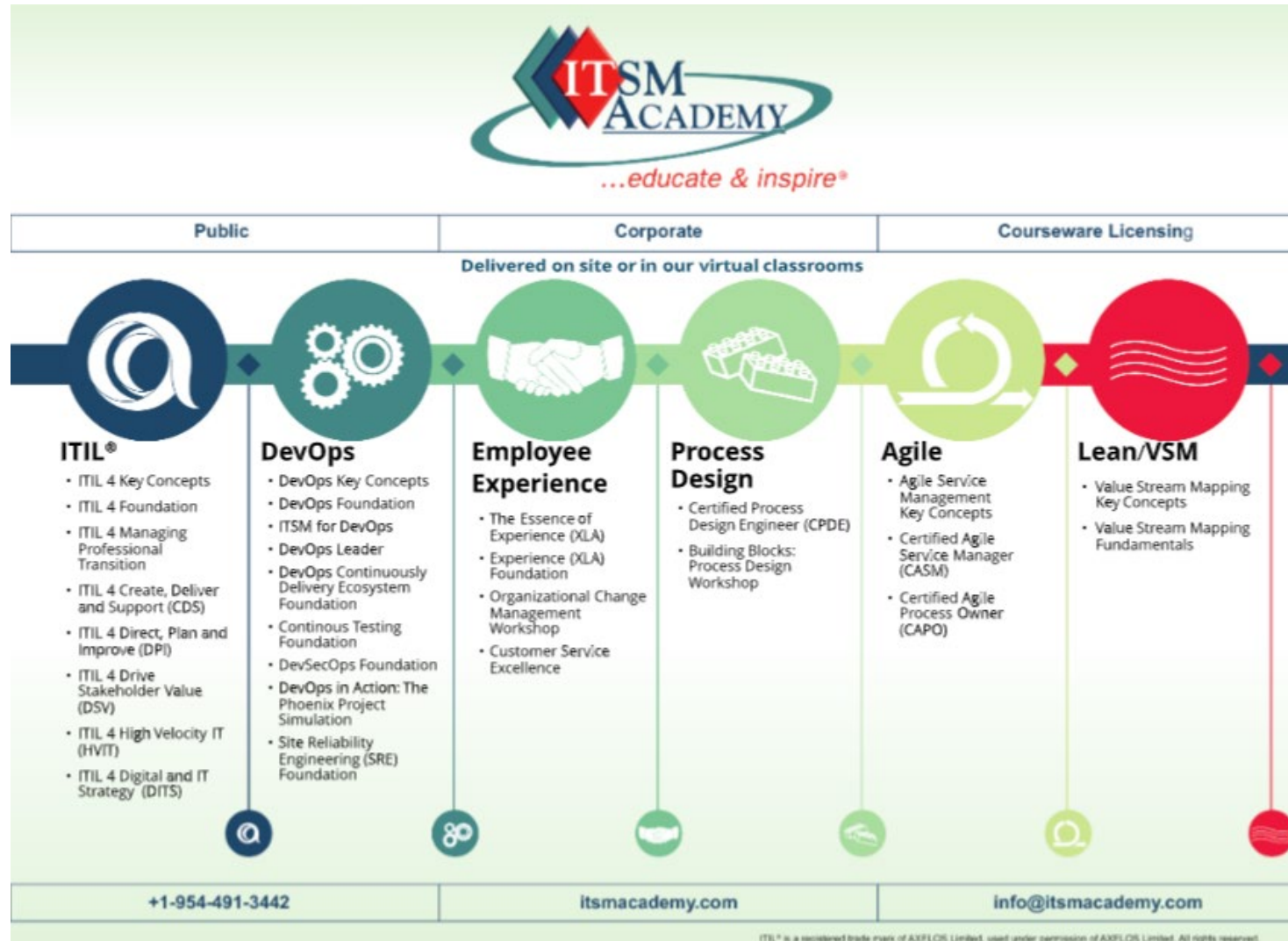# Want to Learn More?

#askitsm

@ITSMAcademy

info@itsmacademy.com

www.itsmacademy.com
www.itsmprofessor.net

ITSM Academy Course Catalog

ITIL 4 Certification Scheme

Core Publications and Certification Courses

ITIL Managing Professional (MP)				ITIL Strategic Leader (SL)	
ITIL Specialist **Create, Deliver & Support**	ITIL Specialist **Drive Stakeholder Value**	ITIL Specialist **High Velocity IT**	ITIL Strategist **Direct, Plan & Improve**	ITIL Strategist **Direct, Plan & Improve**	ITIL Leader **Digital & IT Strategy**
ITIL Foundation				ITIL Foundation	

+

Practices Guides

Problem Management ITIL®4 Practice Guide
AXELOS.com

Incident Management ITIL®4 Practice Guide
AXELOS.com

Change Enablement ITIL®4 Practice Guide
AXELOS.com

Copyright © AXELOS Limited 2018.
Used under permission of AXELOS Limited.
All rights reserved.

A one year's subscription to My ITIL is included for all new ITIL® certificates.

© ITSM Academy unless otherwise stated

44

Which ITIL 4 Courses Are For You?

- ITIL Managing Professional *and* ITIL Strategic Leader
  - ✓ **Direct, Plan, & Improve (DPI) –** focuses on supporting a defined strategy
    - The ability to use ITIL methods in overall modern IT strategy
    - Creating a 'learning and improving' IT organization with a strong and effective strategic direction
    - A clear alignment between strategy and operations and how to maximize desired business / digital outcomes
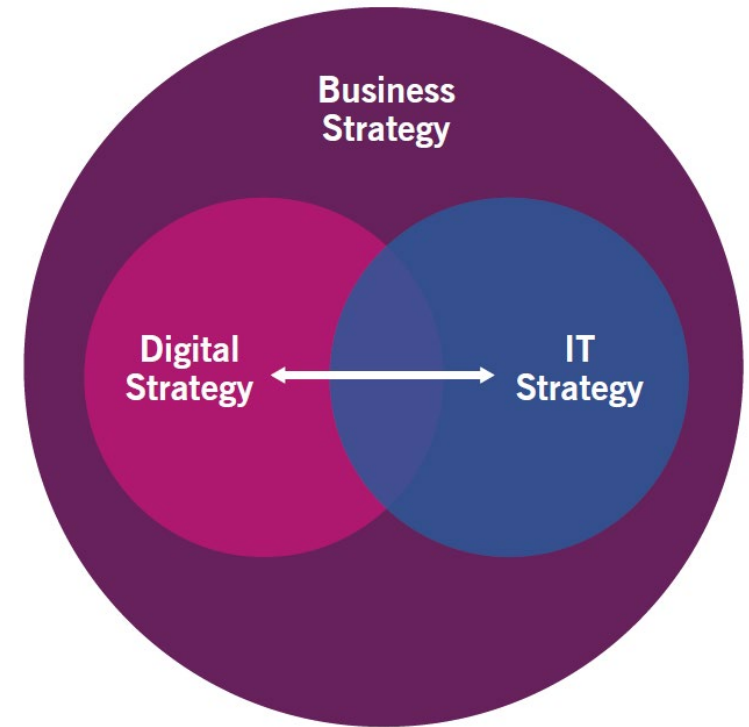
ITIL 4 Text – 5

Which ITIL 4 Courses Are For You? (2)

- ITIL Managing Professional Stream
  - ✓ **Create, Deliver, and Support (CDS)** – focuses on value streams
    - Core service management activities and how to expand the current scope of ITIL
    - Logical and actionable next step to enable immediate, tangible changes
    - Co-creation of innovative yet reliable tech-enabled services
  - ✓ **Drive Stakeholder Value (DSV)** – focuses on the customer journey
    - All types of engagement & interaction between service providers and their customers, users, suppliers, and partners
    - How to convert demand into value via IT-enabled services
    - Multi-dependent workflows and systems for both consumers and producers
    - The tools needed to increase and sustain stakeholder satisfaction
  - ✓ **High Velocity IT (HVIT)** – focuses on ITSM in the context of digital
    - The digital perspective and a new way of looking at ITIL
    - ITIL's operating model, principles and operational practices can be used for digital delivery and transformation
    - Ways in which digital organizations and digital operating models function in high velocity environments
    - The difference between IT transformation and digital transformation – knowing where to make your digital investment for maximum return

ITIL 4 Text – 5

Which ITIL 4 Courses Are For You? (3)

- ITIL Strategic Leader
  - ✓ **Digital & IT Strategy (DITS) –** focuses on defining and executing a digital strategy
    - Elevates the discussion around ITIL concepts to the strategic level
    - Focuses on the importance and challenges of creating a digital strategy to enable business success
    - Provides leaders and aspiring leaders guidance that can be used to strategically manage risk and survive and thrive in a VUCA* environment

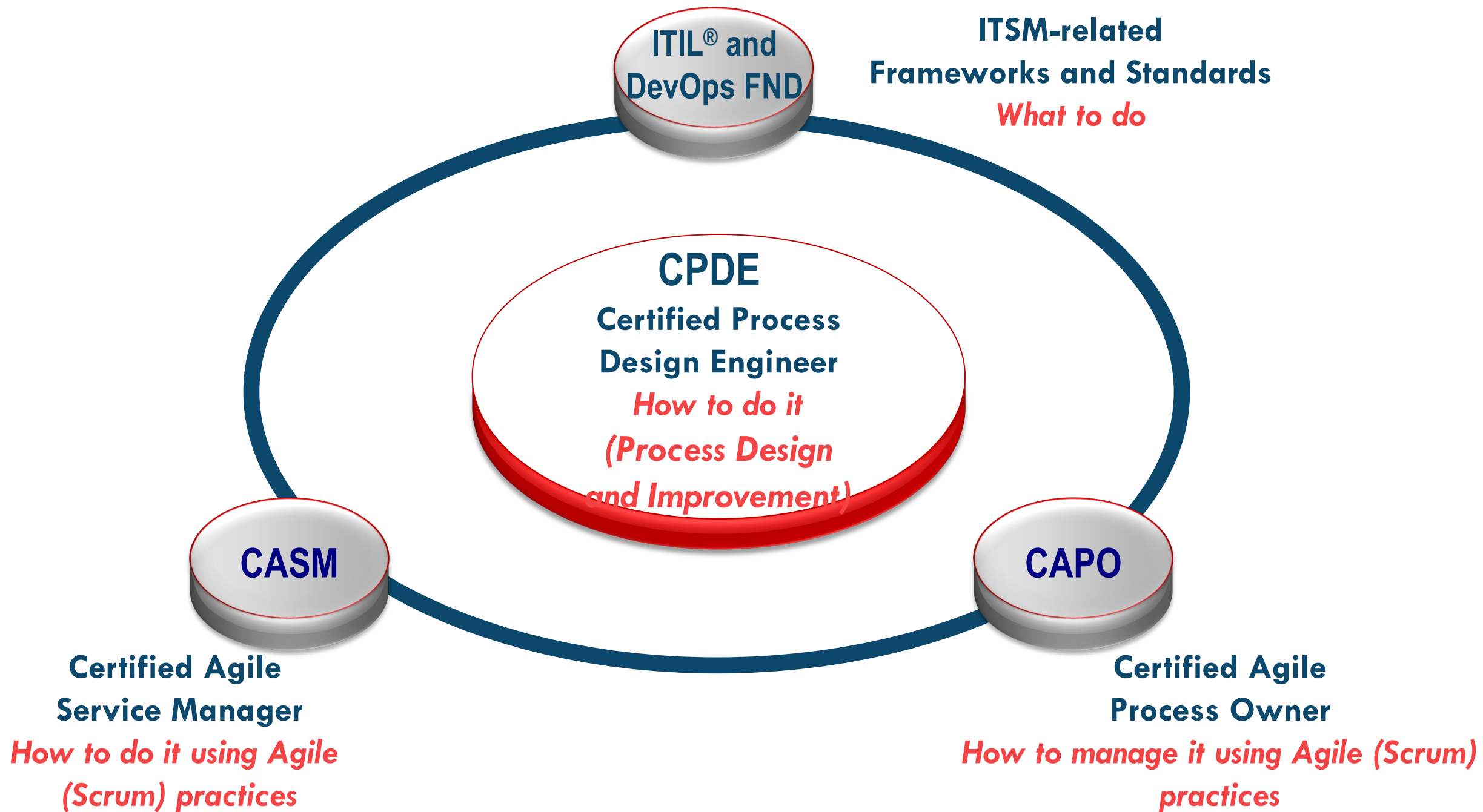*Volatile, Uncertain, Complex, Ambiguous

ITIL 4 Text – 5

DevOps Certifications

Continuous Testing Foundation

DevOps Leader

DevOps Foundation

DevOps Practitioner Series

Continuous Delivery Ecosystem Foundation

DevSecOps Foundation

ITIL® and DevOps FND

ITSM-related Frameworks and Standards
What to do

CPDE
Certified Process Design Engineer
How to do it (Process Design and Improvement)

CASM

Certified Agile Service Manager
How to do it using Agile (Scrum) practices

CAPO

Certified Agile Process Owner
How to manage it using Agile (Scrum) practices

Thank You for Attending!