

# Delivery at Scale Learning Outcomes

Version 2.0



# LICENSING INFORMATION

The work in this document was facilitated by the International Consortium for Agile (ICAgile) and done by the contribution of various Agile Experts and Practitioners. These Learning Outcomes are intended to help the growing Agile community worldwide.

This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-nd/4.0/> or send a letter to Creative Commons, PO Box 1866, Mountain View, CA 94042, USA.

### YOU ARE FREE TO:

**Share** — copy and redistribute the material in any medium or format

### UNDER THE FOLLOWING TERMS:

**Attribution** — You must give appropriate credit to The International Consortium for Agile (ICAgile), provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests ICAgile endorses you or your use.

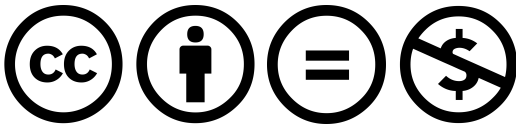
**NonCommercial** — You may not use the material for commercial purposes.

**NoDerivatives** — If you remix, transform, or build upon the material, you may not distribute the modified material.

### NOTICES:

You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation.

No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material.



# **SPECIAL THANKS**

ICAgile would like to thank the contributors to the Delivery at Scale Learning Outcomes:

Shannon Ewan • Dan Fuller • Vladimir Gorshunov • Mike Griffiths •  
Derek Heuther • Bruce Keightley • Brian Mowbray • Pat Reed •  
Johanna Rothman • Joshua Seckel • Horia Slușanschi •  
Helen Snitkovsky • Dennis Stevens • Pia-Maria Thorén

# HOW TO READ THIS DOCUMENT

This document outlines the learning outcomes that must be addressed by accredited training organizations intending to offer ICAgile's Delivery at Scale certification.

Each LO follows a particular pattern, described below.

## 0.0.0. Learning Outcome Name

*Additional Context, describing why this Learning Outcome is important or what it is intended to impart.*

The Learning Outcome purpose, further describing what is expected to be imparted on the learner (e.g. a key point, framework, model, approach, technique, or skill).

# CONTENTS

<b>2</b>	<b>LICENSING INFORMATION</b>
<b>3</b>	<b>SPECIAL THANKS</b>
<b>4</b>	<b>HOW TO READ THIS DOCUMENT</b>
<b>5</b>	<b>TABLE OF CONTENTS</b>
<b>6</b>	<b>FOREWORD</b>
<b>8</b>	<b>LEARNING OUTCOMES</b>
<b>8</b>	<b>1. OPTIMIZE THE SYSTEM</b>
8	1.1. Learning to See the Whole System
8	1.2. Governance for Effective Delivery
9	1.3. Agile Processes at Scale
<b>9</b>	<b>2. EMPOWER THE ORGANIZATION TO DELIVER</b>
9	2.1. Structure the Organization for Effective Outcomes
10	2.2. How Culture Supports Empowered Delivery
<b>11</b>	<b>3. ALIGN VALUE DELIVERY AT SCALE</b>
11	3.1. Stop Starting, Start Stopping
12	3.2. Communicating Value & Progress

# FOREWORD

## THE DISCIPLINE OF DELIVERY MANAGEMENT

Delivery Management is the discipline of ensuring that the development and implementation of products and projects is conducted both effectively and efficiently. Delivery Management provides the frameworks within which product development takes place. People responsible for delivery management are often coordinating and supporting the work of others, creating safe environments for learning and experimentation and being good stewards of corporate funds.

The track introduces core agile concepts such as servant leadership, adaptive planning, frequent feedback for learning, and a focus on value-driven versus plan-driven delivery. Courses compare and contrast agile delivery management with traditional management approaches and give participants principles and tools to apply in their teams and organizations. Learning outcomes focus on delivering the right products through empowering people, aligning on value, managing the system to enable high performance and adaptive planning at all levels the portfolio.

Delivery at Scale is the focus of the second certification in this track - this is about becoming a learning organization, coordination across multiple interdependent streams of work and the trade-offs needed to keep an adaptive portfolio balanced and ensure the best outcomes for the organization and value for customers.

There are many different frameworks and approaches to delivery management. ICAgile does not endorse one over another, instead we encourage you to learn about the various approaches and apply them in the appropriate way for the context you are in. There is no “one size fits all” approach and true agility comes from being able to adapt the approach to the environment, create opportunities for rapid delivery of value and get feedback from real customers quickly.

## TARGET AUDIENCE FOR THE DELIVERY MANAGEMENT TRACK

The skills and techniques of effective delivery management are useful for people in many different roles in today’s organizations. If you are in any way responsible for ensuring the effective delivery of working products into the hands of real customers then this track is for you. If you are responsible for balancing competing demands across a portfolio of products or projects then this track provides tools and techniques to help achieve the best outcomes for your organization.

These roles were explicitly called out when we wrote the track:

- Delivery leads / Delivery Managers or people moving into these roles
- Project or Program Manager or people moving into these roles
- Portfolio Managers or people moving into these roles

- Release Train Engineers
- Business Architects
- Enterprise Architects
- Managers at any level in the organization

# LEARNING OUTCOMES

## 1. OPTIMIZE THE SYSTEM

### 1.1. LEARNING TO SEE THE WHOLE SYSTEM

#### 1.1.1. Complexity as Enemy Number One

*Complexity is a driver for new ways of working at the enterprise level. Value is often derived from reducing complexity.*

Introduce the concept of wicked problems, which require new ways of working to address. Scaling team efforts through coordination and collaboration are often required to tackle high complexity contexts.

#### 1.1.2. Making Sense of Complex Environments

*Tools and techniques to help make sense out of complexity exist, and are evolving.*

Introduce ideas around complexity models, sense making, use of abstraction, systems thinking and end-to-end measurement to identify opportunities and risks at an organizational level.

#### 1.1.3. Visualizing Flow Through the System

*Visualizing the flow of value through systems provides a systematic method to tackle complexity.*

Explain techniques such as value stream mapping or other modeling approaches and the use of metrics such as cycle time, response time and lead time. Explain the impact of incomplete work, WIP and WIP limits. Be clear that there are discrepancies between models and reality, but modeling can help with shared understanding.

#### 1.1.4. System Constraints

*Eli Goldratt's Theory of Constraints provides us with a way of systematically identifying bottlenecks and improving systems.*

Introduce the Theory of Constraints as a particular tool for identifying and addressing bottlenecks in flow, reducing handoffs and queue sizes.

### 1.2. GOVERNANCE FOR EFFECTIVE DELIVERY

#### 1.2.1. Good Governance in an Agile Context

*In an agile context, rapid experimentation, learning and adaptation require streamlined governance practices.*

Introduce ideas around cultivating a culture of quality and discipline without instituting overly burdensome bureaucracy, such as the Beyond Budgeting principles.



### 1.2.2. Enablers for Good Agile Governance

*Governance practices and attitudes are different in an agile context.*

Introduce ideas around acceptable quality and risk - "good enough for now, safe enough to try" versus the fruitless pursuit of perfection. Explain how communities of practice/interest support governance. Governance should focus on obstacle removal rather than intervention. This could include ideas such as Agile Fluency, agility as a journey rather than a maturity scale.

## 1.3. AGILE PROCESSES AT SCALE

### 1.3.1. Why Scale?

*There are products and services which require multiple teams to collaborate to deliver the needed outcomes; it is imperative to figure out how to retain the productivity gains of agile teams in a scaled context.*

Explore the complexity of communication and collaboration in large organization vs. the nimbleness of small teams. Look at cost of dependencies between small teams versus inefficiencies of large teams. Contrary to traditional wisdom, there are contexts in which larger teams can be the better option.

### 1.3.2. Scaling Process is not Always the Answer

*Sometimes it is better to descale the problem rather than scale the solution.*

Explain that bigger is not always better and that there are alternate approaches to scaling which have been applied successfully (e.g., WL Gore's approach).

### 1.3.3. Frameworks for Scaling Agility

*There are many published scaling approaches.*

Introduce a variety of scaling frameworks and the contexts they are useful in. Discuss the pros and cons of different frameworks

(e.g., SAFe, LeSS, DAD, NEXUS, Spotify, Enterprise Services Planning).

### 1.3.4. Build Your Own Framework

*It does not have to be only one framework; it can be a blend of approaches.*

Introduce ways to tailor the approach to the needs of the organization. Do not force a particular framework when a blended approach might be more effective.

## 2. EMPOWER THE ORGANIZATION TO DELIVER

### 2.1. STRUCTURE THE ORGANIZATION FOR EFFECTIVE OUTCOMES

#### 2.1.1. Organizational Maturity

*As organizations gain experience using agile approaches, they will naturally experience pressure to evolve practices, processes and structures in order to deliver value more effectively.*

Explain how behaviors and structures (e.g., org structure, governance mode, finance, HR, legal) could change in order to support agile delivery. Include discussions, examples or exercises that highlight how changes such as transparency, a safe-to-fail culture and long-lasting teams, when implemented across an organization, usually succeed in enhancing the delivery of value. Introduce ideas around agile maturity models such as agile fluency or other models.

### 2.1.2. Small World Networks vs. Hierarchy

*Small-world networks increase the likelihood of collaboration and the flow of information because of greater interconnection.*

Explain that networked teams are able to solve problems where the problems arise, instead of via the hierarchy. Introduce approaches such as Sociocracy & Holacracy along with Demming's "law of the network."

### 2.1.3. Organize Around Value Stream

*Organizing around value streams helps improve the overall customer experience with respect to an organization's products and services.*

Explain the need to focus on value streams to enable flow. Show the implications of value stream, focus on organizational structure and discuss how it flows through to financial management and other aspects of the business.

### 2.1.4. Transitioning Functional Managers to Other Roles

*Empowerment means a leader will have less to do as the team matures and improves their performance.*

Discuss how the management role changes as teams require different leadership. Introduce ideas around situational leadership and how managers can work on removing impediments in the system. Many organizations have "too many" control-oriented leaders after they adopt agile approaches. These organizations often have too few product owners, architects-embedded-in-teams, and other servant leaders.

### 2.1.5. Importance of Transparency

*"Being empowered" is not sufficient. People need information and transparency to make reasonable decisions.*

Explain that the prerequisites to empowerment are knowledge of the goal, knowledge to do the work and competence to make decisions, in addition to the network of people.

## 2.2. HOW CULTURE SUPPORTS EMPOWERED DELIVERY

### 2.2.1. Why Focus on Culture

*When we focus on culture, we create an environment in which people have the autonomy, mastery and purpose to do their best work.*

Describe why creating autonomy, mastery and purpose in your organization will lead to a faster path towards improvement.

## 2.2.2. Habits of an Agile Culture

*Managers become "organizational gardeners" (as opposed to "organizational mechanics") when they create and refine the agile culture.*

Explain how people focus on nurturing growth in themselves and others by cultivating a growth mindset.

Describe the management discipline of servant leadership/gardening and the team's discipline for collaboration and technical excellence.

(Reference Greenleaf/Case's characteristics of servant leadership. People do not use blame to change others' behaviors; instead, they routinely practice reinforcing and change-focused feedback. Reference XP, Bernstein, maybe Rothman re technical excellence.)

## 2.2.3. Culture of Optimizing for the Whole

*Agile teams require self-organization and/or self-management where teams take responsibility for the outcome of the organization, not each person taking ownership for their personal work.*

Align communication about valuable outcomes, possibly via ideas such as OKRs. Note regarding self-management, some jurisdictions have legal restrictions around things like hiring/firing by the team.

# 3. ALIGN VALUE DELIVERY AT SCALE

## 3.1. STOP STARTING, START STOPPING

### 3.1.1. The Case for Alignment

*Alignment enables decentralized decision making, which is essential for speed.*

Explain ideas around loose-coupling and tight alignment which enable cross-functional, potentially cross-departmental collaboration. Share goals and outcomes with clearly defined boundaries.

### 3.1.2. Ways to Foster Alignment

*There are ways to make the connection between objectives and execution.*

Discuss the importance of clarity of outcomes, end-to-end value and feedback loops help create alignment.

### 3.1.3. Making Tradeoffs

*Tradeoffs are necessary because we never have the funding, capacity and time to do everything.*

Explain techniques to visualize the organization's overall portfolio of work related to the available capacity. Demonstrate how to manage the flow of work to optimize for value across the whole portfolio.

## **3.2. COMMUNICATING VALUE & PROGRESS**

### **3.2.1. Tracking and Measuring Value at Scale**

*Make value visible and transparent across the whole portfolio.*

Introduce ideas around visualization and multi-level hierarchical backlogs. Discuss ways to visualize value creation such as using kanban at the portfolio level. Show how multi-level hierarchical backlogs provide value traceability.

### **3.2.2. Ordering Work Items Economically**

*There are techniques for ordering work in and across the portfolio.*

Introduce one or more models or frameworks to prioritize work items in a way that maximizes economic benefit.

### **3.2.3. Examples of Large Scale Value Metrics**

*It is important to measure value at scale in addition to at the team level.*

Provide examples of value measurement systems, dashboards and KPIs that can be used at the portfolio level. Introduce leading and lagging indicators in this context as well.

### **3.2.4. Sustaining Continuous Improvement**

*Use feedback to drive continuous improvement.*

Introduce concepts around nimble governance - stop the line as an opportunity to teach how to do something really well. Be able to stop initiatives early if we have learned the initiatives are not likely to unlock enough value. Drive improvements across organizational areas through the involvement of Communities of Interest/ Practice.