SAFe Agilist Certification Study Notes

Code: SA

Understanding SAFe

Scaled Agile Framework

Knowledge base for implementing Lean-Agile at scale

SAFe Core Values

Value	Description
Alignment	Strategy and execution alignment at all levels
Built-in Quality	Quality is not added later; it's built in from the start
Transparency	Trust-based environment with open communication
Program Execution	Working systems and business outcomes delivered

SAFe Principles

- **#1:** Take an economic view
- **#2:** Apply systems thinking
- **#3:** Assume variability; preserve options
- **#4:** Build incrementally with fast, integrated learning cycles
- **#5:** Base milestones on objective evaluation of working systems
- **#6:** Visualize and limit WIP, reduce batch sizes, manage queue lengths
- **#7:** Apply cadence, synchronize with cross-domain planning
- **#8:** Unlock the intrinsic motivation of knowledge workers

- **#9:** Decentralize decision-making
- **#10:** Organize around value

Exam Focus Areas

- All 10 principles are derived from Lean, Agile, and product development flow
- Principle #1 (economic view) guides prioritization decisions
- Core Values guide behaviors; Principles guide practices
- SAFe is a prescriptive framework with built-in flexibility

Agile Release Train & Program Increment

The fundamental constructs of SAFe

Agile Release Train (ART)

Definition

Long-lived team of Agile teams (50-125 people)

Purpose

Deliver value through a continuous flow of PI

Alignment

Common vision, program backlog, and roadmap

Cadence

Operates on fixed PI cadence (8-12 weeks)

Program Increment (PI)

Component	Description
Duration	8-12 weeks (typically 5 iterations)
Structure	4-5 development iterations + 1 IP iteration

Component	Description
Planning	Face-to-face PI Planning (2 days)
Output	Working, tested increment of value
Events	PI Planning, System Demo, Inspect & Adapt

PI Planning

- **Duration:** 2 days, face-to-face preferred
- **Attendees:** All ART members, Business Owners, stakeholders
- **Outputs:** PI Objectives, committed features, program board
- **Confidence Vote:** Teams vote on ability to deliver (fist of five)

Exam Focus Areas

- PI Planning is the 'heartbeat' of the ART
- Innovation & Planning (IP) iteration provides buffer and planning time
- All teams aligned to same iteration boundaries
- PI Objectives have Business Value assigned by Business Owners

Customer Centricity

Design Thinking

Human-centered approach to innovation

Design Thinking Phases

Phase	Purpose	Activities
Empathize	Understand user needs	Interviews, observation, immersion
Define	Frame the problem	Point of view statement, problem definition
Ideate	Generate solutions	Brainstorming, sketching, prototyping ideas
Prototype	Build to learn	Low-fidelity prototypes, experiments
Test	Validate solutions	User testing, feedback collection

Customer Journey Mapping

- **Personas:** Fictional users representing different segments
- **Touchpoints:** Every interaction with the product/service
- **Pain Points:** Frustrations and obstacles in the journey
- **Moments of Truth:** Critical interactions that shape perception

⚠ Exam Focus Areas

- Design Thinking is iterative, not linear
- Empathize phase is about understanding, not solving
- Prototypes are for learning, not for production
- Test early and often with real users

Lean Startup & MVP

Build-Measure-Learn for validated learning

Build-Measure-Learn Cycle

Build

Create MVP to test hypothesis

Measure

Collect data on customer behavior

Learn

Validate or invalidate hypothesis

Minimum Viable Product (MVP)

- **Purpose:** Test riskiest assumptions with minimal investment
- **Characteristics:** Just enough features to validate hypothesis
- **Goal:** Maximize learning, not deliver complete product
- **Types:** Concierge MVP, Wizard of Oz, landing page tests

Pivot vs Persevere

Decision	When	Action
Pivot	Hypothesis disproven	Change direction based on learning
Persevere	Hypothesis validated	Continue and scale current approach

⚠ Exam Focus Areas

- MVP is not a minimal product; it's minimum to test hypothesis
- Validated learning is the unit of progress
- Pivot is not failure; it's structured course correction
- Innovation accounting tracks progress toward PMF

Strategic Alignment

Lean Portfolio Management

Aligning strategy and execution

LPM Dimensions

Dimension	Focus
Strategy & Investment Funding	Connect portfolio to strategy, fund value streams
Agile Portfolio Operations	Coordinate ARTs, manage flow
Lean Governance	Spending policies, compliance, forecasting

Strategic Themes

- **Definition:** Differentiating business objectives
- **Connection:** Link enterprise strategy to portfolio
- **Influence:** Guide investment decisions and prioritization
- **Duration:** Typically 1-3 years horizon

OKRs (Objectives & Key Results)

Objectives

What we want to achieve (qualitative)

Key Results

How we measure progress (quantitative)

Exam Focus Areas

- LPM replaces traditional project-based funding
- Fund value streams, not projects
- Guardrails provide governance with autonomy

- Participatory budgeting involves stakeholders

Epics and Prioritization

Managing significant initiatives

Epic Lifecycle (Portfolio Kanban)

State	Purpose
Funnel	Capture all ideas
Analyzing	Develop Lean Business Case
Portfolio Backlog	Approved, awaiting capacity
Implementing	Actively being developed
Done	Hypothesis validated or invalidated

WSJF (Weighted Shortest Job First)

> WSJF = Cost of Delay ÷ Job Duration

Cost of Delay Components

- **User Business Value:** Direct value to users/customers
- **Time Criticality:** Urgency and market timing
- **Risk Reduction / Opportunity Enablement:** What it enables

Lean Business Case

Solution Hypothesis

Business Outcomes

What we believe will work

Expected benefits

Leading Indicators

Early success measures

MVP

Minimum to test hypothesis

Exam Focus Areas

- WSJF uses relative estimation (Fibonacci)
- Cost of Delay = User Value + Time Criticality + RROE
- Smaller jobs create faster feedback loops
- Lean Business Case is lightweight, not detailed

Value Flow

Value Streams

Organize around the flow of value

Types of Value Streams

Type	Focus	Example
Development	Build solutions	New product development
Operational	Deliver value	Customer service, order fulfillment

Value Stream Mapping

- **Current State:** Document how value flows today
- **Pain Points:** Identify delays, handoffs, waste
- **Future State:** Design improved flow

- **Implementation:** Execute improvements iteratively

Flow Metrics

Flow Velocity

Number of items completed per time

Flow Time

Time from start to finish

Flow Efficiency

Active time vs total time

Flow Load

WIP compared to capacity

Exam Focus Areas

- Organize around value, not functional silos
- Value streams are long-lived structures
- ARTs realize value streams
- Flow efficiency reveals waste and delay

Continuous Delivery Pipeline

Deliver value on demand

CDP Components

Component	Focus
Continuous Exploration	What to build (Design Thinking, customer discovery)
Continuous Integration	How to build (build, test, merge frequently)
Continuous Deployment	When to release (deploy on demand)

Littles Law

> Lead Time = WIP ÷ Throughput

Key Practices

- **Limit WIP:** Reduce multitasking, improve flow
- **Reduce Batch Size:** Faster feedback, less risk
- **Manage Queues:** Visible WIP limits
- **Architectural Runway:** Enable feature development

⚠ Exam Focus Areas

- Deploy ≠ Release (separate concepts)
- Feature toggles enable deployment without release
- Reducing WIP shortens lead time
- Small batches enable faster learning

Lean-Agile Leadership

Lean-Agile Leadership

Leading SAFe transformation

Leadership Responsibilities

Responsibility	Actions
Lead by Example	Model behaviors, embrace learning, show vulnerability
Inspire & Align	Communicate vision, create transparency

Responsibility	Actions
Support Change	Remove impediments, provide resources
Develop People	Coach, mentor, create learning opportunities

Servant Leadership

- **Enable:** Create conditions for team success
- **Empower:** Push decisions to those with information
- **Support:** Remove obstacles and provide resources
- **Develop:** Grow people's skills and capabilities

Decentralized Decision Making

Centralize

Strategic, infrequent, irreversible decisions

Decentralize

Tactical, frequent, reversible decisions

⚠ Exam Focus Areas

- Leaders model the behavior they expect
- Psychological safety enables innovation
- Decentralize decisions to where information exists
- Leaders are responsible for transformation success

SAFe Implementation Roadmap

Proven path to enterprise agility

Implementation Steps

Step	Focus
1. Reaching the Tipping Point	Business need, urgency, vision for change
2. Train Lean-Agile Change Agents	Build internal expertise
3. Train Executives & Leaders	Align leadership understanding
4. Create Lean-Agile CoE	Central team to drive transformation
5. Identify Value Streams & ARTs	Define where value flows
6. Create Implementation Plan	Roadmap for ART launches
7. Prepare for ART Launch	Backlogs, roles, infrastructure
8. Train Teams & Launch ART	Train all, run first PI Planning
9. Coach ART Execution	Support first PIs
10. Launch More ARTs	Scale across organization
11. Extend to Portfolio	LPM implementation
12. Sustain & Improve	Continuous improvement

LACE (Lean-Agile Center of Excellence)

- **Purpose:** Drive and sustain transformation
- **Activities:** Coach, train, communicate, measure
- **Composition:** Internal change agents
- **Duration:** Evolves but typically persists

> ⚠ **Exam Focus Areas**

- Transformation starts with leadership commitment
- Train leaders before teams
- LACE provides ongoing transformation support
- Relentless improvement is ongoing, never complete