

# The Scaled Agile Framework

Foundations of the Scaled Agile  
Framework<sup>®</sup> (SAFe)

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PMP, CSP, SPC





## Armond Mehrabian

- Enterprise Agile Trainer and Coach since 2004
- 25 years in the software development industry
- Developer, Manager, Consultant, Coach, Speaker
- Founder of Portofino Solutions, Inc.
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# Today's Agenda

- ▶ SAFe Overview
- ▶ SAFe for Programs
- ▶ Running a Release Train
- ▶ Lean and Agile Teams
- ▶ Q & A

# Ag-ile

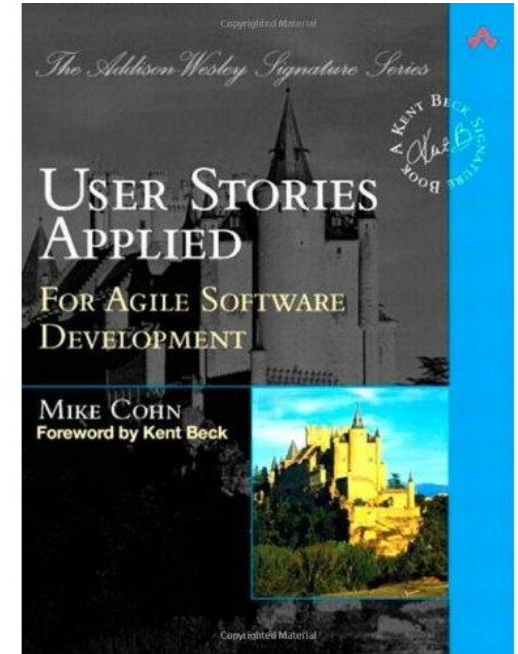
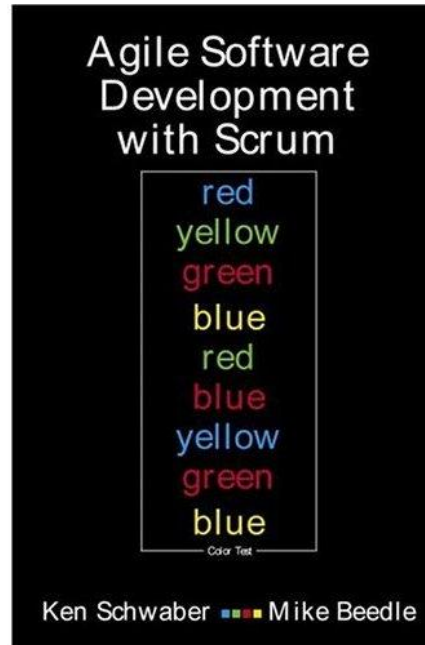
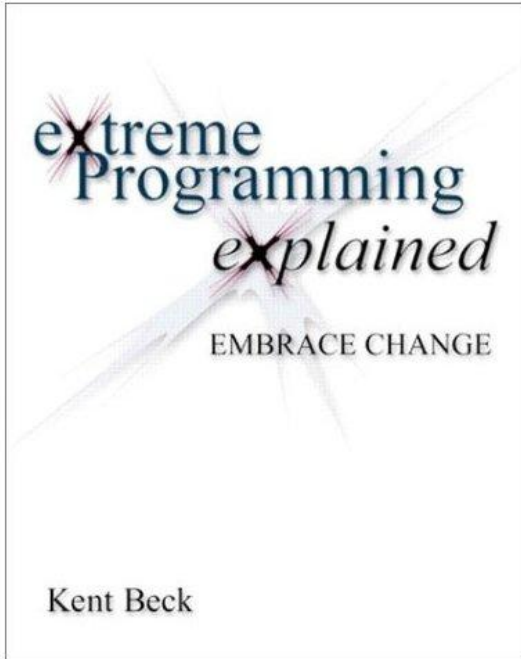
Adjective: Able to move quickly and easily, well coordinated and adaptable.

Synonyms: active, nimble, quick, spry, alert, responsive

Antonym: lethargic, slow, clumsy, awkward

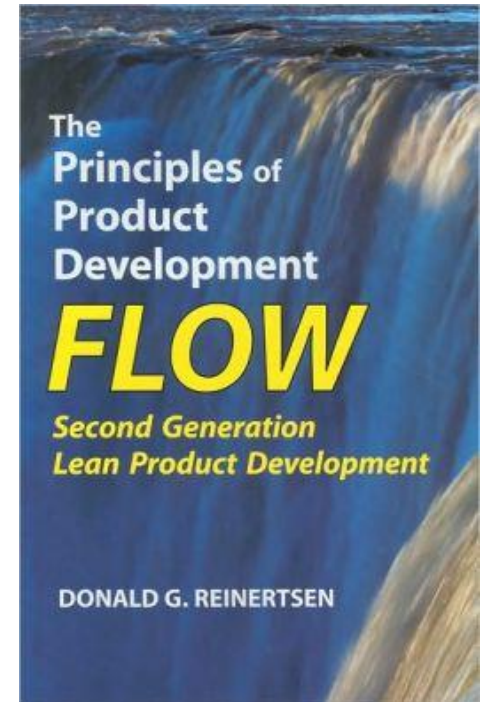
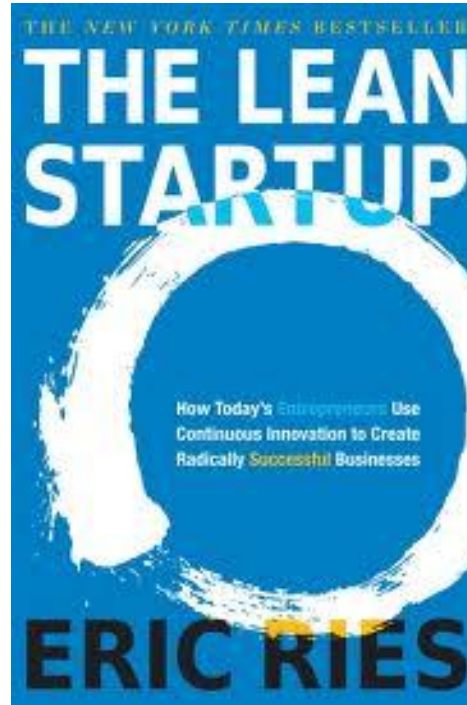
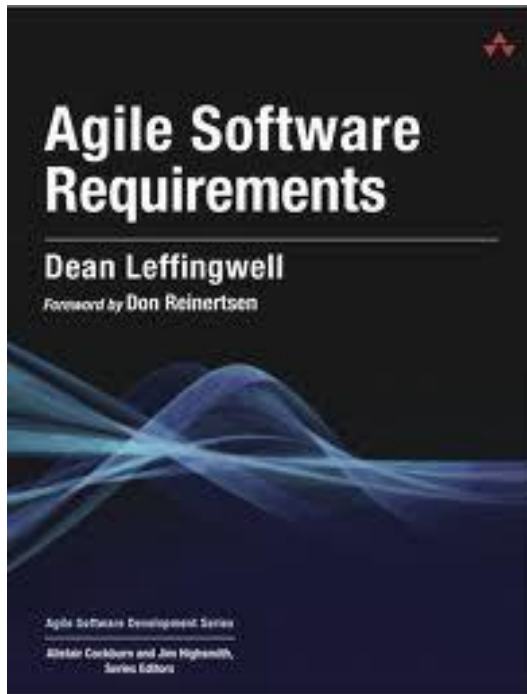


# Pioneer Thought Leaders – First Wave



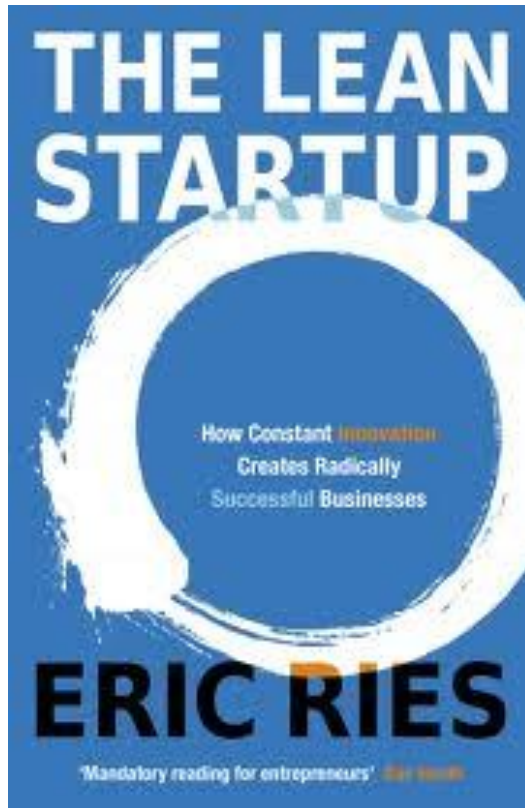
## Focused on Product Development Teams

# Second Wave of Agile Adoption



## Focused on Business Agility

# Organizations want to be Agile



*“A startup is a human institution designed to deliver a new product or service under conditions of extreme uncertainty.*

*It has nothing to do with the size of the company, sector of the economy or industry.”*

- Eric Ries

# Thought Leaders in Lean and Agile



**Dean  
Leffingwell**



**Jeff  
Sutherland**



**“Uncle” Bob  
Martin**



**Don  
Reinertsen**

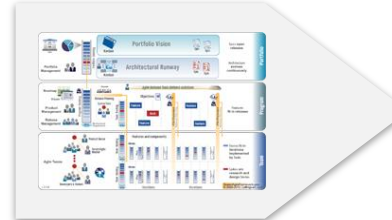


# Agile Process Movement

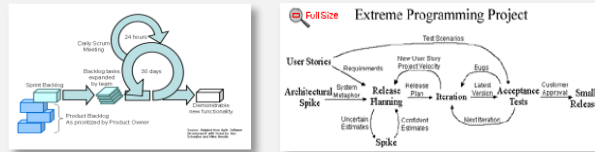
## SAFe Enterprises

Nordstrom,  
 Visa, Telstra,  
 Nokia, BMC  
 Software, John  
 Deere,  
 TradeStation  
 Technologies,  
 Tripwire,  
 Discount Tire,  
 Nokia Siemens  
 Networks,  
 ValPak...

## Enterprise Agility

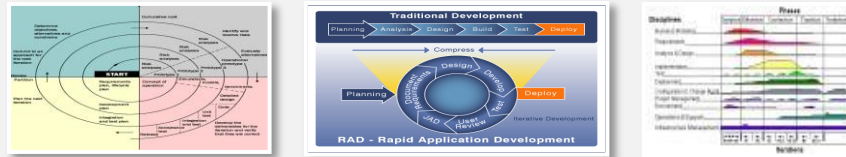


## Agile (Adaptive) Processes



Scrum, XP, Lean, Open UP, FDD, Crystal...

## Iterative Processes



Spiral

RAD

RUP...

## Predictive Process



1970

1980

1990

2000

2010

# Agile Principles – The Agile Manifesto

“We are uncovering better ways of developing software by doing it and helping others do it. Through this work we have come to value:

**Individuals and interactions** over processes and tools

**Working software** over comprehensive documentation

**Customer collaboration** over contract negotiation

**Responding to change** over following a plan

That is, while there is value in the items on the right, we value the items on the left more”

<http://www.agilemanifesto.org>

# Agile Manifesto Principles

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Working software is the primary measure of progress.
4. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
5. Business people and developers must work together daily throughout the project.
6. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.

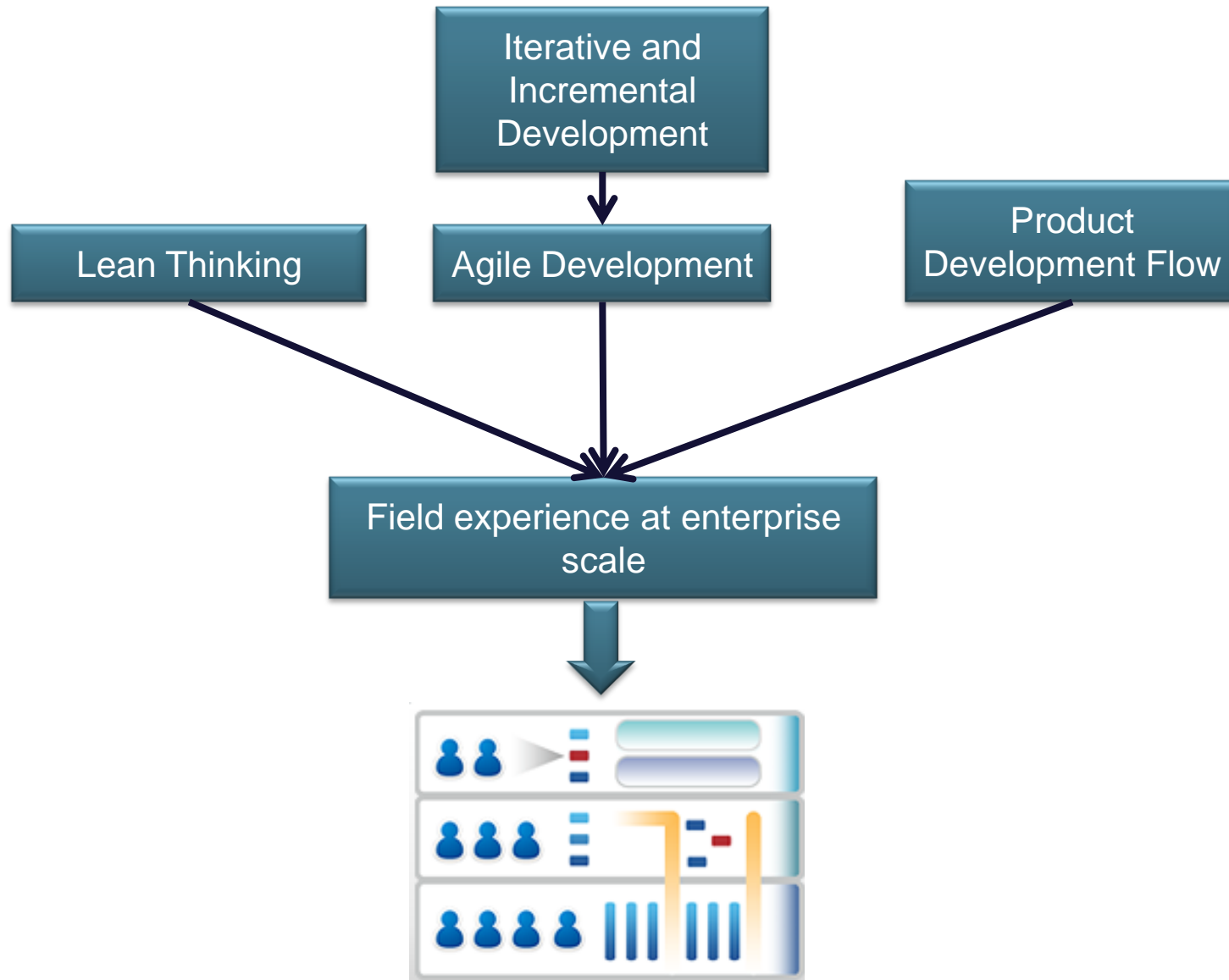
<http://agilemanifesto.org/principles.html>

# Manifesto Principles (continued)

7. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity – the art of maximizing the amount of work not done – is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

The **Scaled Agile Framework® (SAFe)**...  
is a proven, publicly-facing framework...  
for applying Lean and Agile practices...  
at enterprise scale.

# Roots of SAFe



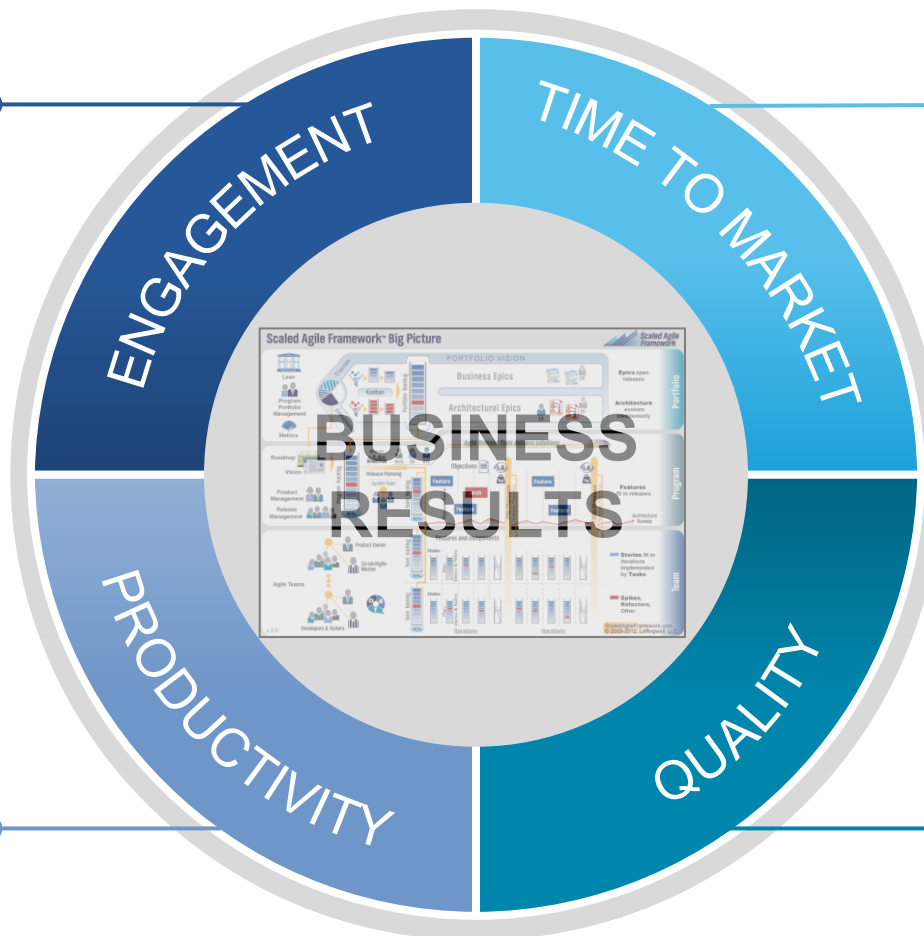
# SAFe Delivers Business Results

*Significant increase in employee engagement*

**- John Deere**

*Agile teams average 37-50% faster to market*

**- QSM research**



*We experienced a 20-50% increase in productivity*

**- BMC Case Study**

*Our agile programs introduced 50% less defects into production*

**- Confidential**

**Scrum** is to *team*

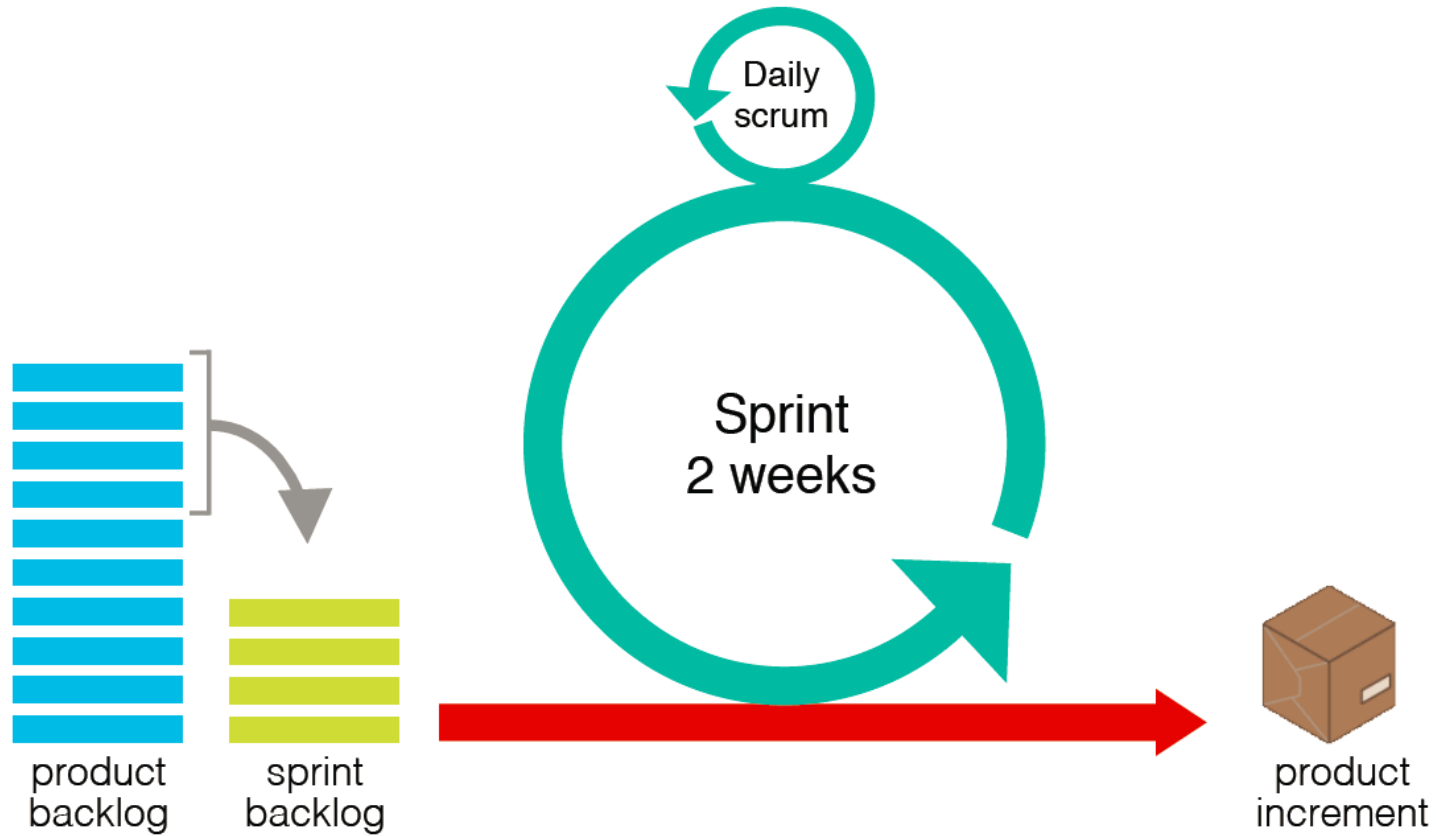
as

**SAFe** is to *enterprise*



# Scrum

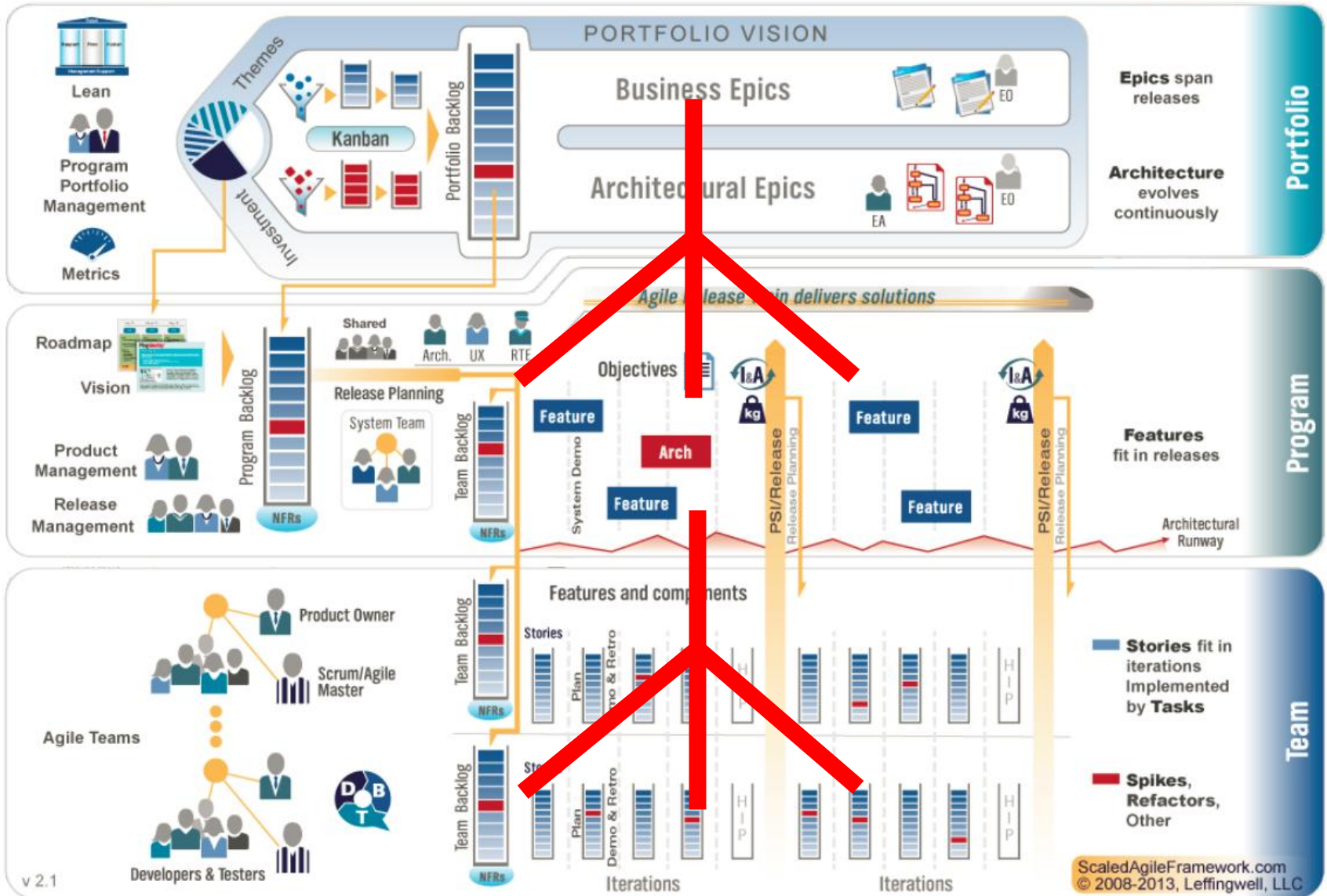
## 2 Weeks



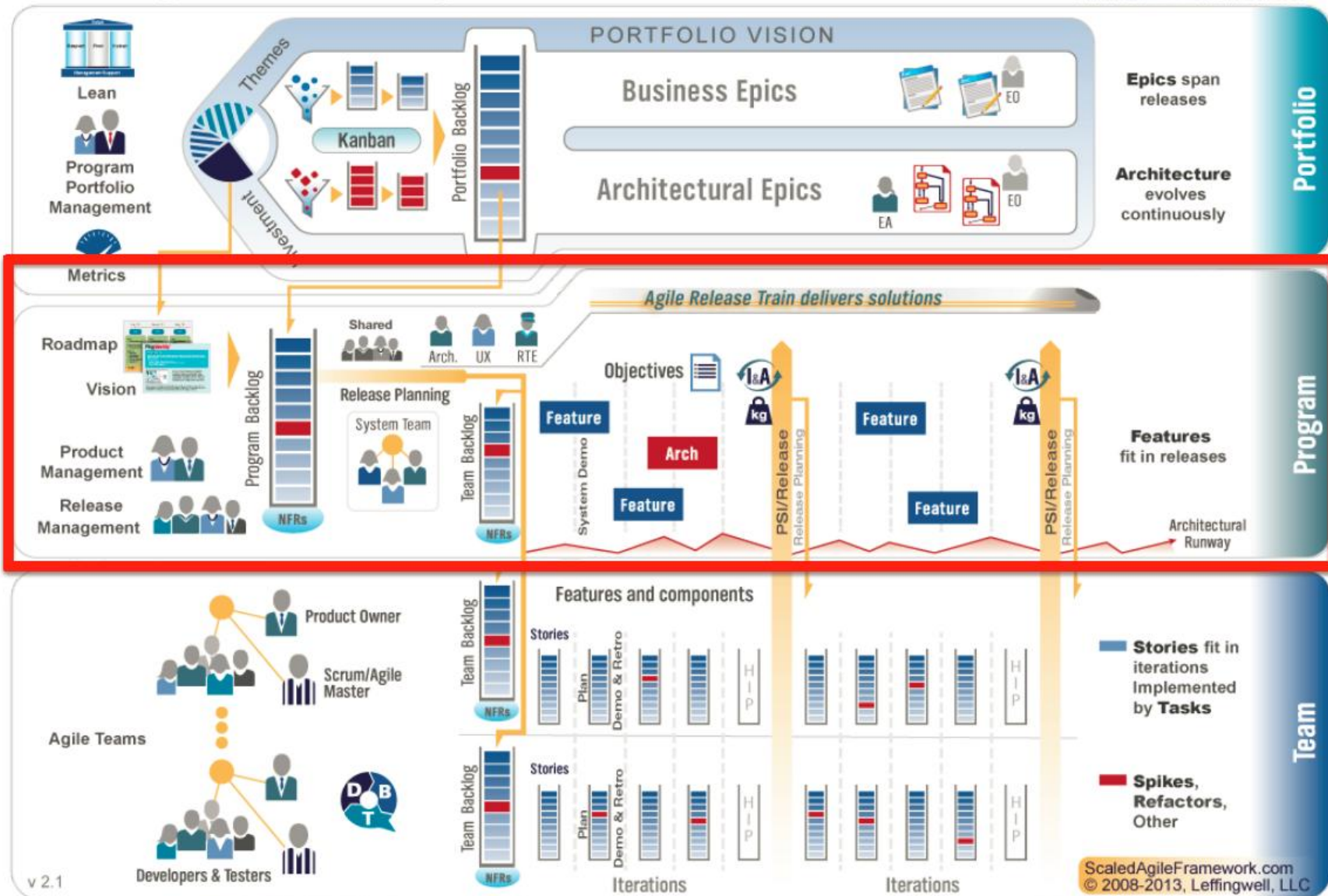
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# Scaled Agile Framework™ Big Picture



# Scaled Agile Framework™ Big Picture





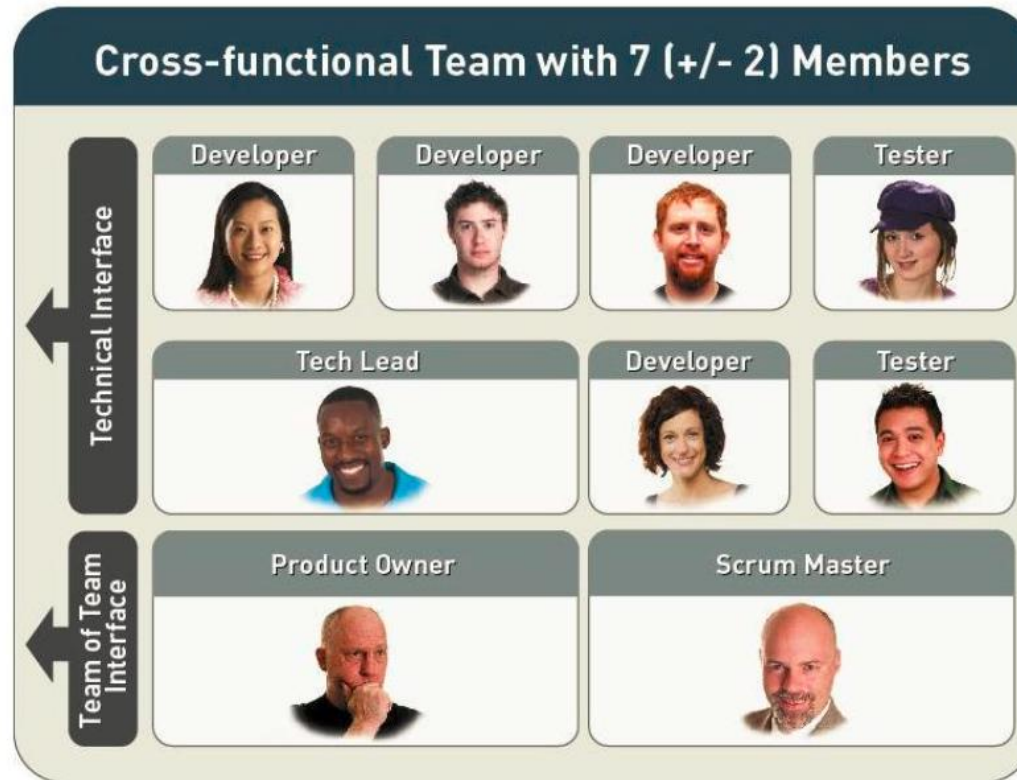
# SCALE TEAMS

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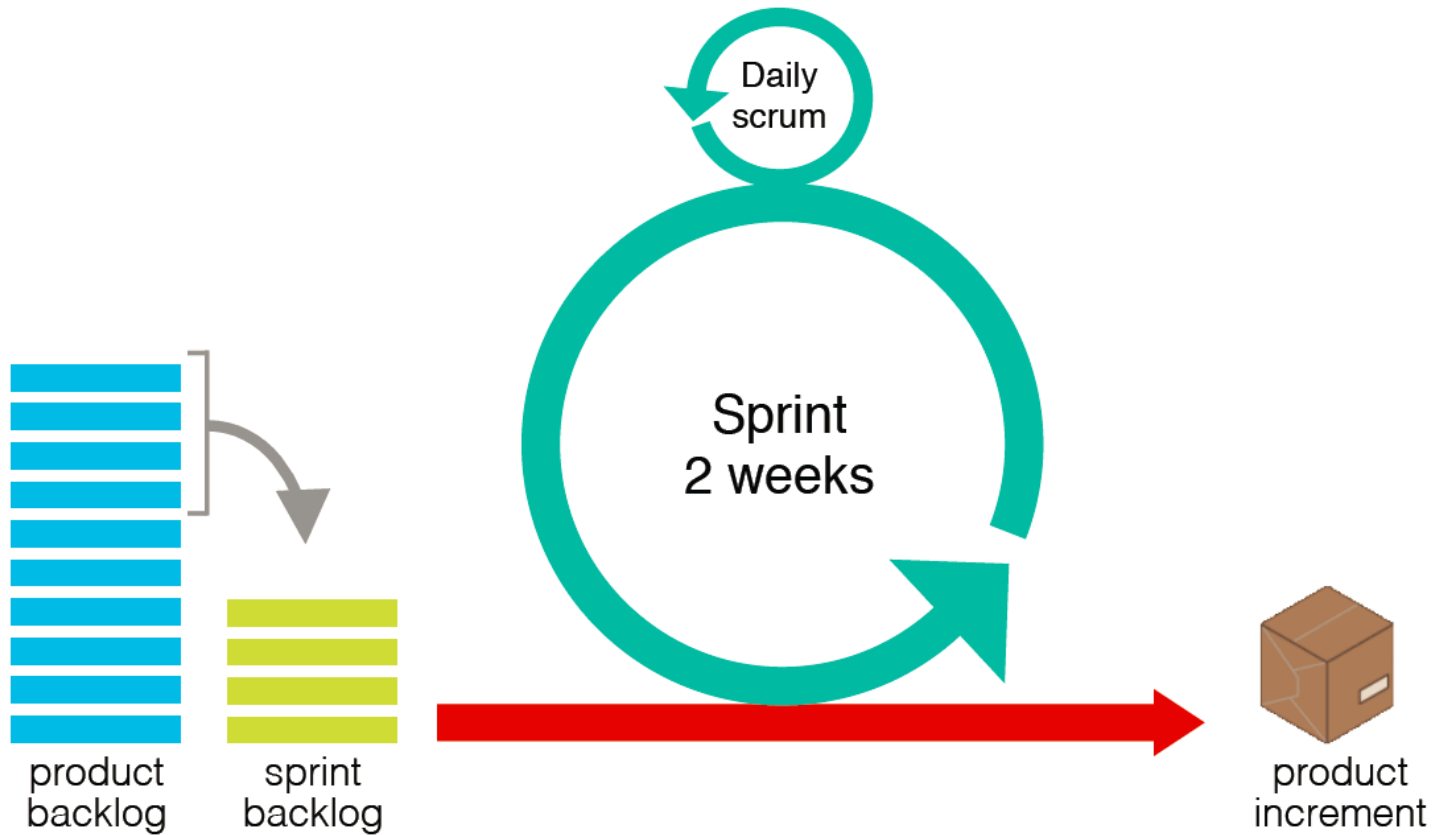
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# 5 to 9 Members



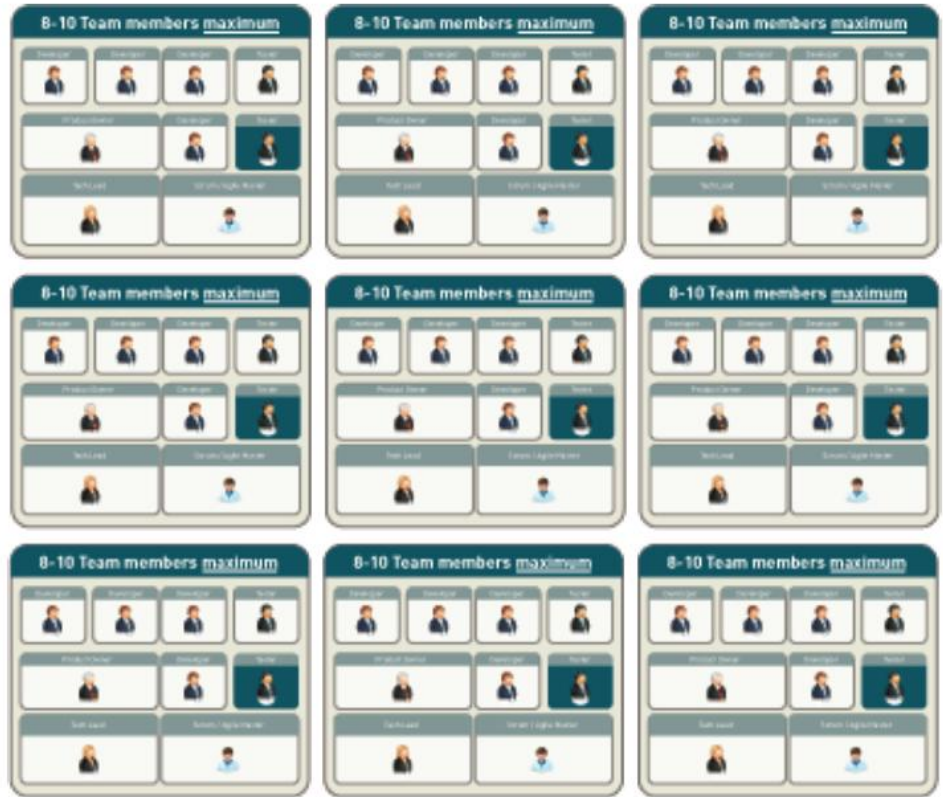
# 2 Weeks



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# 5 to 10 teams



50 to 125 People

# Program Roles



← Product Manager



# Program Roles



Arch.

← System Architect

# Program Roles



Arch.



UX



# Program Roles



Release Train  
Engineer



Arch.



UX

# Program Roles



Arch.



UX

System Team



Release Management

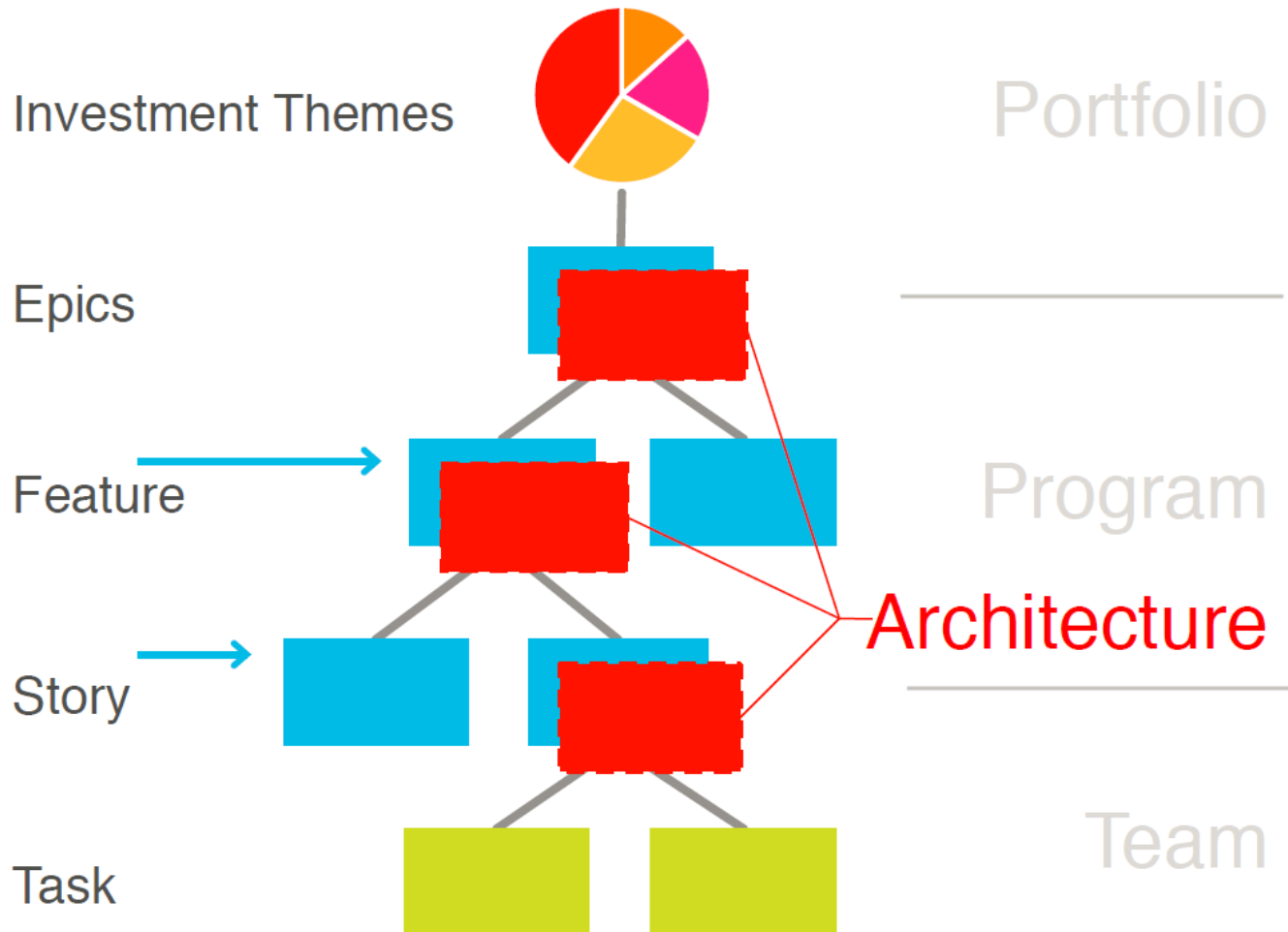


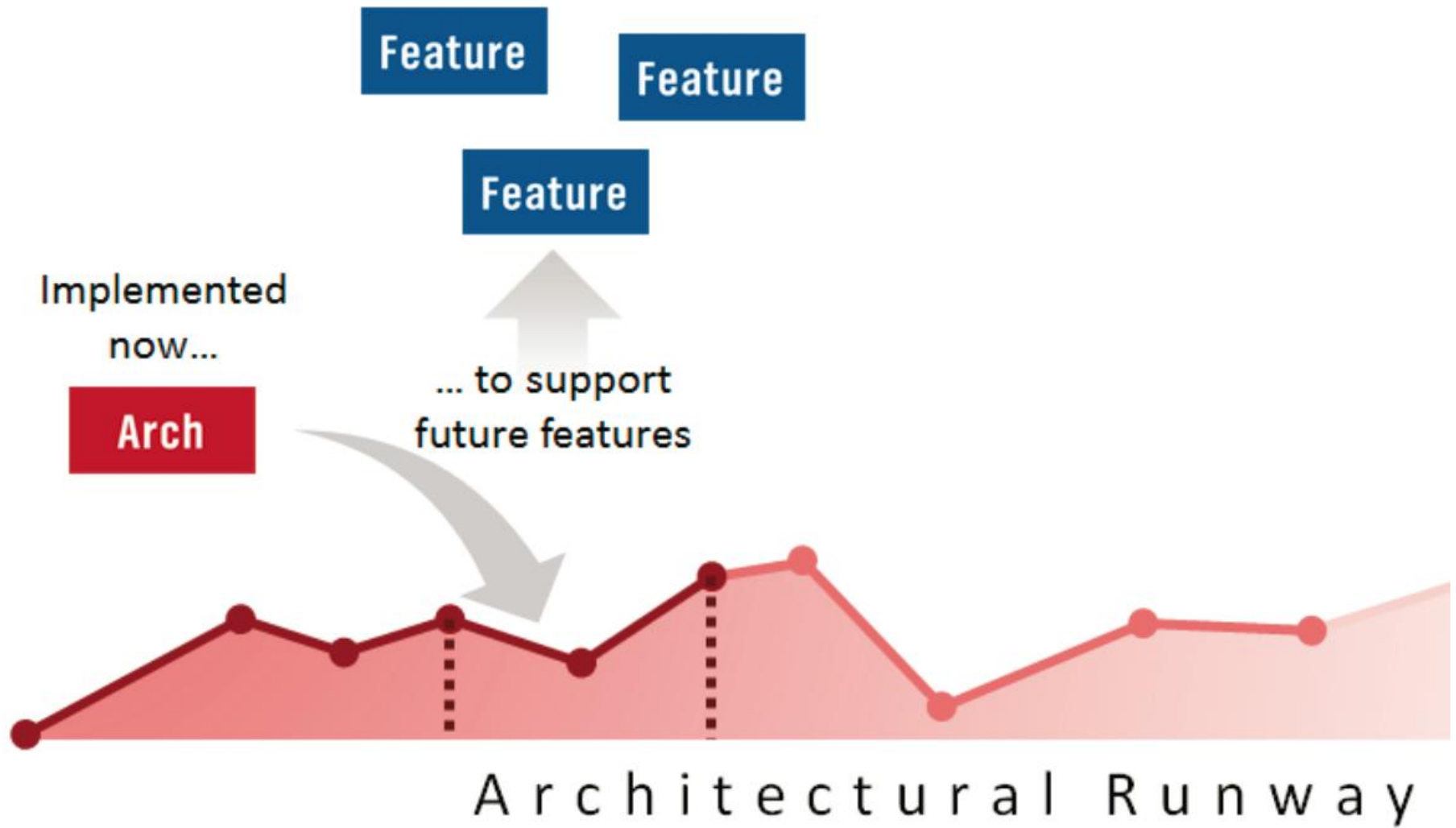


# BACKLOG ITEMS

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# SCALE TIMEBOX

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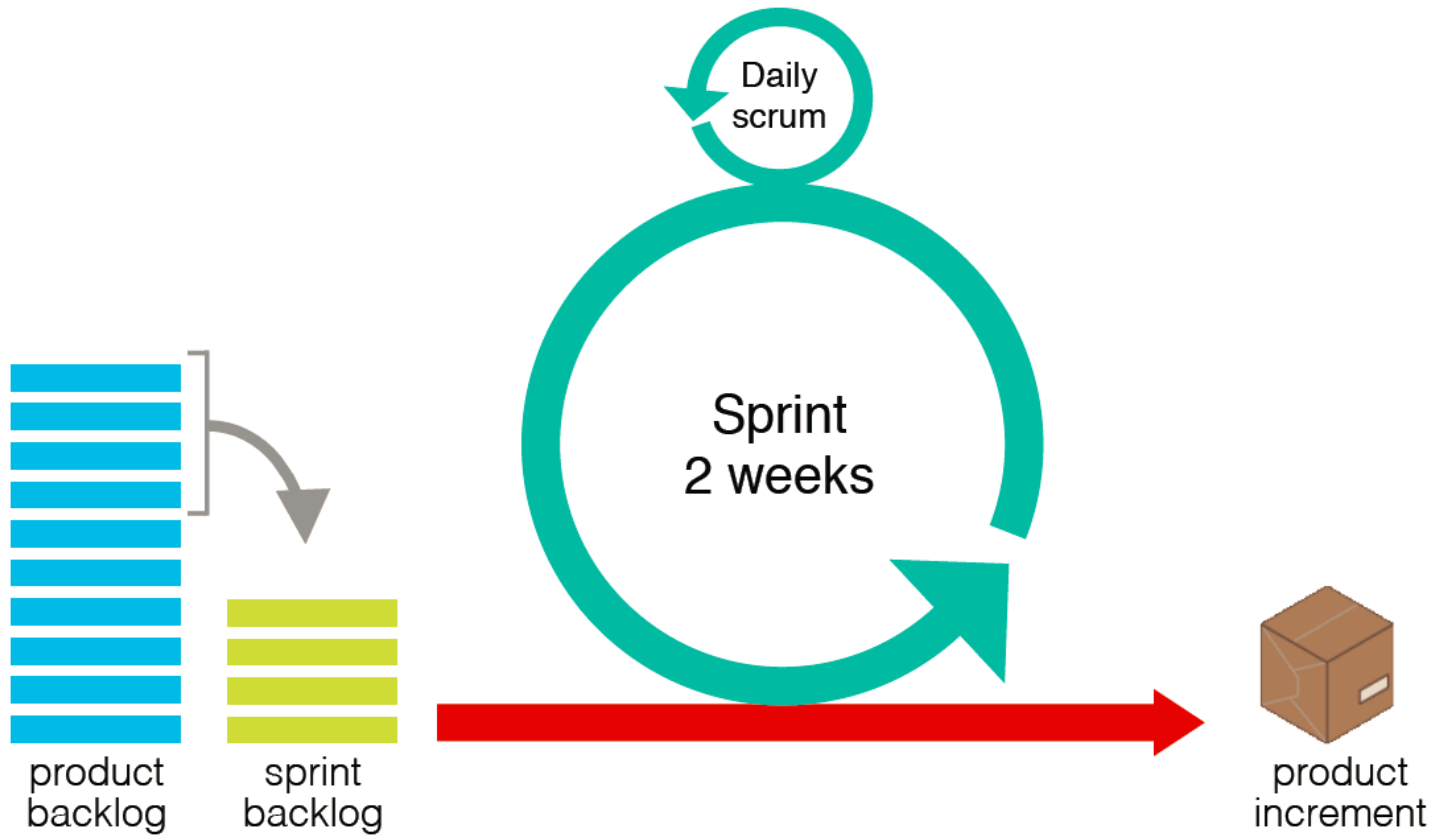


**Iteration  
(Sprint)** is to *team*

as

**Agile  
Release Train** is to *program*

# 2 Weeks

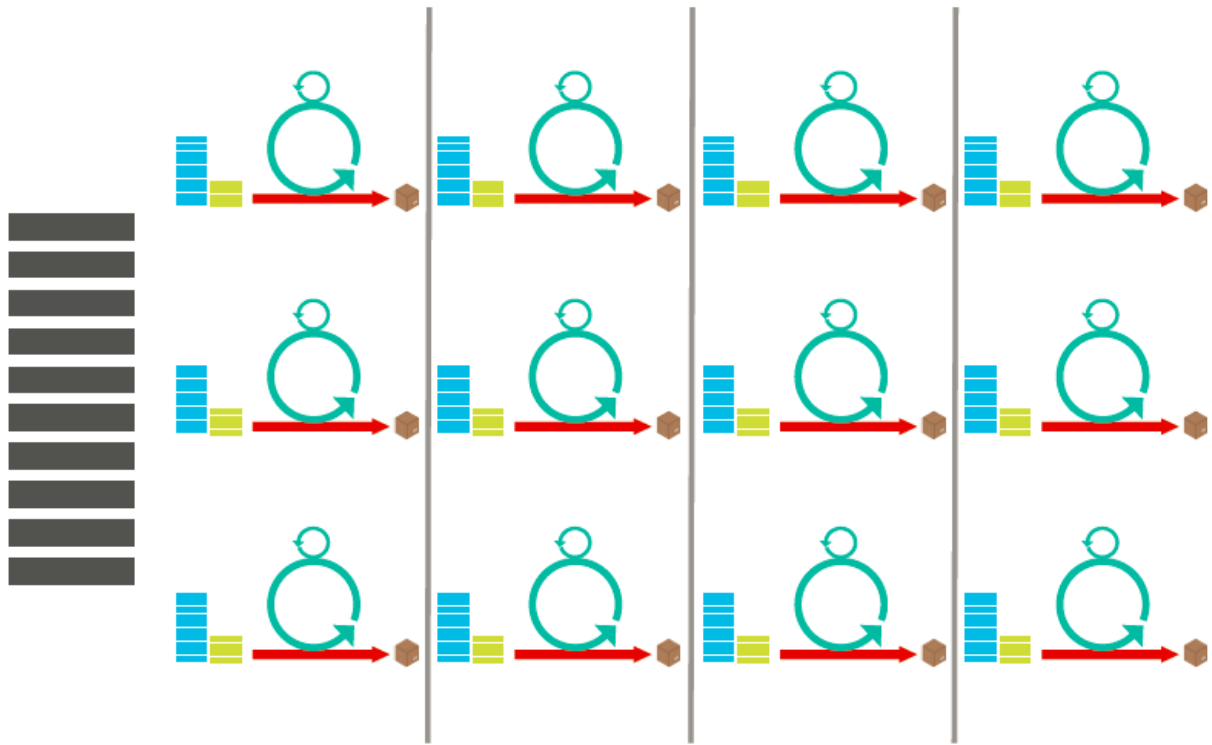


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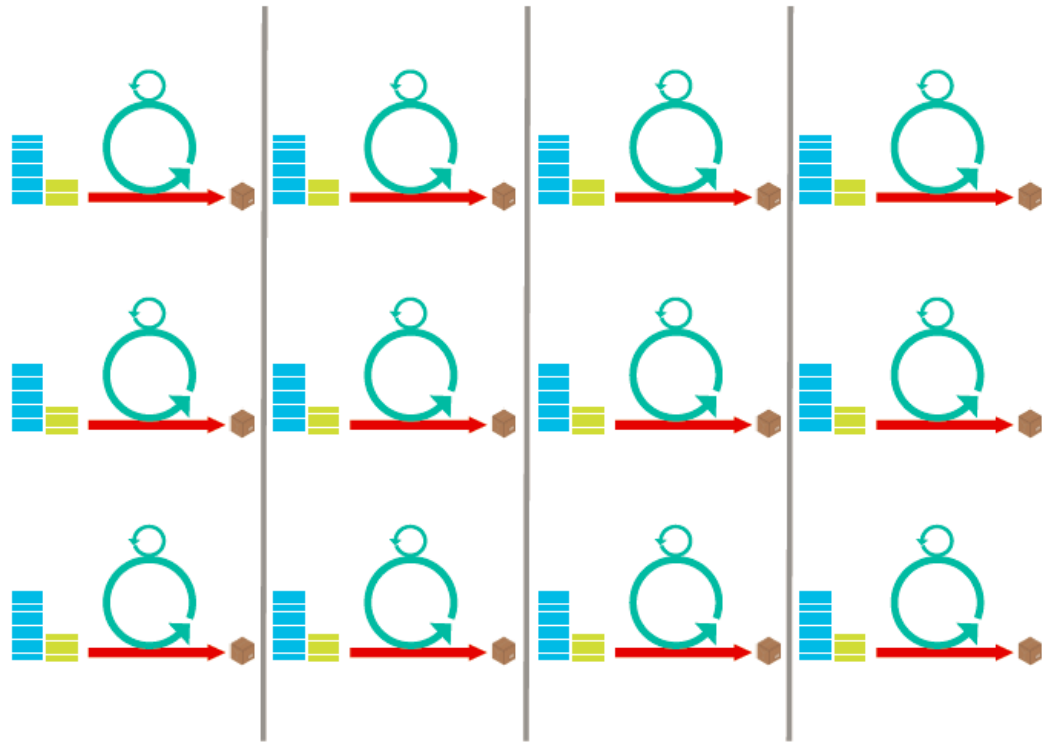
# 10 Weeks

↑ Release Planning



# 10 Weeks

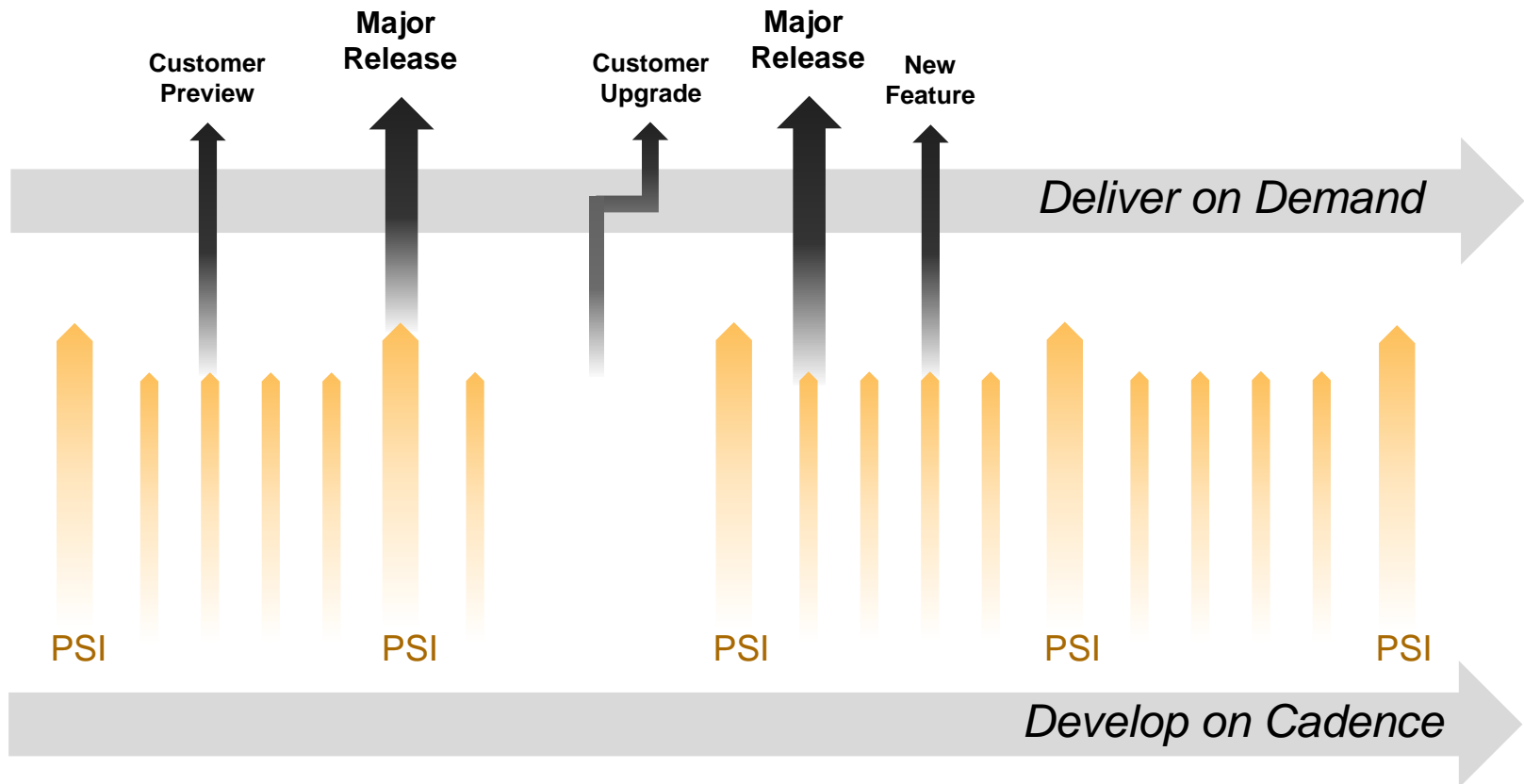
Release Planning



↑ Demo PSI

# Develop on Cadence. Deliver on Demand.

Development occurs on a fixed cadence. The business decides when value is released.



# Make Planning Routine and Lower Cost

The planning calendar can be set a year in advance



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## Program Level Calendar

- Release Planning Meetings
- PSI Demos
- Inspect & Adapt Workshops

## Team Level Calendar

- Sprint Planning Meetings
- Sprint Demos
- Sprint Retrospectives

# The Release Planning Meeting

The Release Planning Meeting is the “pacemaker” of the Agile enterprise.

- ▶ Two days every 10 weeks
- ▶ Everyone attends in person if at all possible
- ▶ Product Management owns feature priorities
- ▶ Development team owns story planning and high-level estimates
- ▶ Architects, UX folks work as intermediaries for governance, interfaces and dependencies
- ▶ Result: A committed set of program objectives for the next PSI



## Day 1 Sample Agenda

8:00-9:00	Business Context
9:00-10:30	Product/ Solution Vision
10:30-11:30	Architecture Vision & Development Practices
11:30-1:00	Planning Requirements & Lunch
1:00-4:00	Team Breakouts
4:00-5:00	Draft Plan Review
5:00-6:00	Management Review & Problem Solving

## Day 2 Sample Agenda








8:00-9:00	Planning Adjustments
9:00-11:00	Team Breakouts
11:00-1:00	Final Plan Review & Lunch
1:00-2:00	Program Risks
2-2:15	PSI Confidence Vote
2:15-???	Plan Rework If Necessary
After Commitment	Planning Retrospective & Moving Forward



# Sample Agenda for Day 1

8:00-9:00	<b>Business Context</b>		<ul style="list-style-type: none"><li>▶ State of the business and upcoming objectives</li></ul>
9:00-10:30	<b>Product/ Solution Vision</b>		<ul style="list-style-type: none"><li>▶ Vision and prioritized features</li></ul>
10:30-11:30	<b>Architecture Vision &amp; Development Practices</b>		<ul style="list-style-type: none"><li>▶ Architecture, common frameworks, etc.</li><li>▶ Agile tooling, engineering practices, etc.</li></ul>
11:30-1:00	<b>Planning Context &amp; Lunch</b>		<ul style="list-style-type: none"><li>▶ Facilitator explains planning process</li></ul>
1:00-4:00	<b>Team Breakouts</b>		<ul style="list-style-type: none"><li>▶ Teams develop draft plans and identify risks and impediments</li><li>▶ Architects and Product Managers circulate</li></ul>
4:00-5:00	<b>Draft Plan Review</b>		<ul style="list-style-type: none"><li>▶ Teams present draft plans, risks, and impediments</li></ul>
5:00-6:00	<b>Management Review &amp; Problem Solving</b>		<ul style="list-style-type: none"><li>▶ Adjustments made based on challenges, risks, and impediments</li></ul>

# Sample Agenda for Day 2

8:00-9:00	Planning Adjustments		<ul style="list-style-type: none"><li>▶ Planning adjustments made based on previous day's management meeting</li></ul>
9:00-11:00	Team Breakouts		<ul style="list-style-type: none"><li>▶ Teams develop final plans and refine risks and impediments</li><li>▶ Business Owners circulate and assign business value to team objectives</li></ul>
11:00-1:00	Final Plan Review & Lunch		<ul style="list-style-type: none"><li>▶ Teams present final plans, risks, and impediments</li></ul>
1:00-2:00	Program Risks		<ul style="list-style-type: none"><li>▶ Remaining program-level risks are discussed and ROAMed</li></ul>
2-2:15	PSI Confidence Vote		<ul style="list-style-type: none"><li>▶ Team and program confidence vote</li></ul>
2:15-???	Plan Rework If Necessary		<ul style="list-style-type: none"><li>▶ If necessary, planning continues until commitment is achieved</li></ul>
After Commitment	Planning Retrospective & Moving Forward		<ul style="list-style-type: none"><li>▶ Retrospective</li><li>▶ Moving Forward</li><li>▶ Final Instructions</li></ul>

# References

- ▶ Leffingwell, Dean. 2011. *Agile Software Requirements: Lean Requirements Practices for Teams, Programs, and the Enterprise*
- ▶ Leffingwell, Dean. 2007. *Scaling Software Agility: Best Practices for Large Enterprises*
- ▶ Cohn, Mike. 2009. *Succeeding with Agile: Software Development Using Scrum*
- ▶ Cohn, Mike. 2005. *Agile Estimating and Planning*
- ▶ Rally Software. 2013. *Scaled Agile Programs with SAFe.*

# Other Resources

- ▶ Scaled Agile Framework: [ScaledAgileFramework.com](http://ScaledAgileFramework.com)
- ▶ Scaled Agile Framework Training and Certification ([www.ScaledAgileAcademy.com](http://www.ScaledAgileAcademy.com))
- ▶ LinkedIn Group: Scaled Agile Framework Community ([http://www.linkedin.com/groups?gid=4189072&trk=hb\\_side\\_g](http://www.linkedin.com/groups?gid=4189072&trk=hb_side_g))
- ▶ Agile Release Train supplies (<http://amzn.com/lm/R1DH1Z8MIHB44P>)