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Agile Primer

Your Guides:

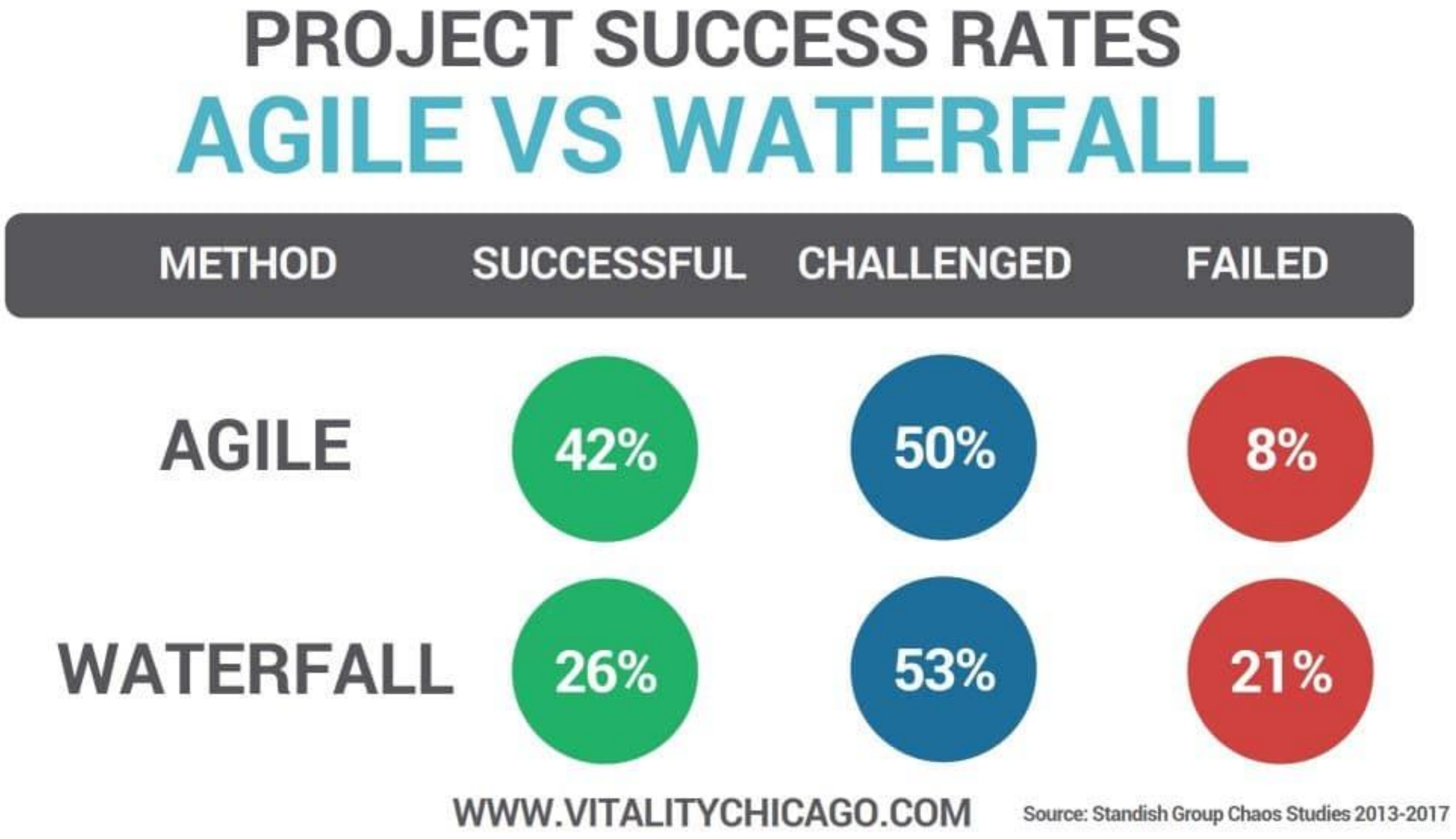
Walter Weber and Joe Knapp

Agenda

- Why Agile?
- What is Agile?
- Agile vs Traditional
- Agile Planning

Why Agile?

Why Agile?



PROJECT SUCCESS RATES
AGILE VS WATERFALL

METHOD	SUCCESSFUL	CHALLENGED	FAILED
AGILE	42%	50%	8%
WATERFALL	26%	53%	21%

WWW.VITALITYCHICAGO.COM Source: Standish Group Chaos Studies 2013-2017

Why Agile?

Harvard Business Review Analytic Services:

Agile software development is “the competitive advantage for a digital age.”

The benefits of agile software development are real, especially for companies looking to accelerate time to market and move quickly into the digital economy.

The Promise of Agile Development

According to PwC internal benchmarks, agile software development offers big benefits across multiple areas

DEVELOPMENT GOAL	IMPROVEMENT WITH AGILE
Quality	Defect escape rates decrease
Time to market	Improves 18-20%
Productivity	Improves 14-95%
Cost	Reduces costs by 7-29%
Employee satisfaction	Improves 20-40%

What is Agile?

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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.”

https://agilemanifesto.org/

What is Agile?

Agile is a group of development methodologies

based on iterative and incremental development

where requirements and solutions evolve through collaboration

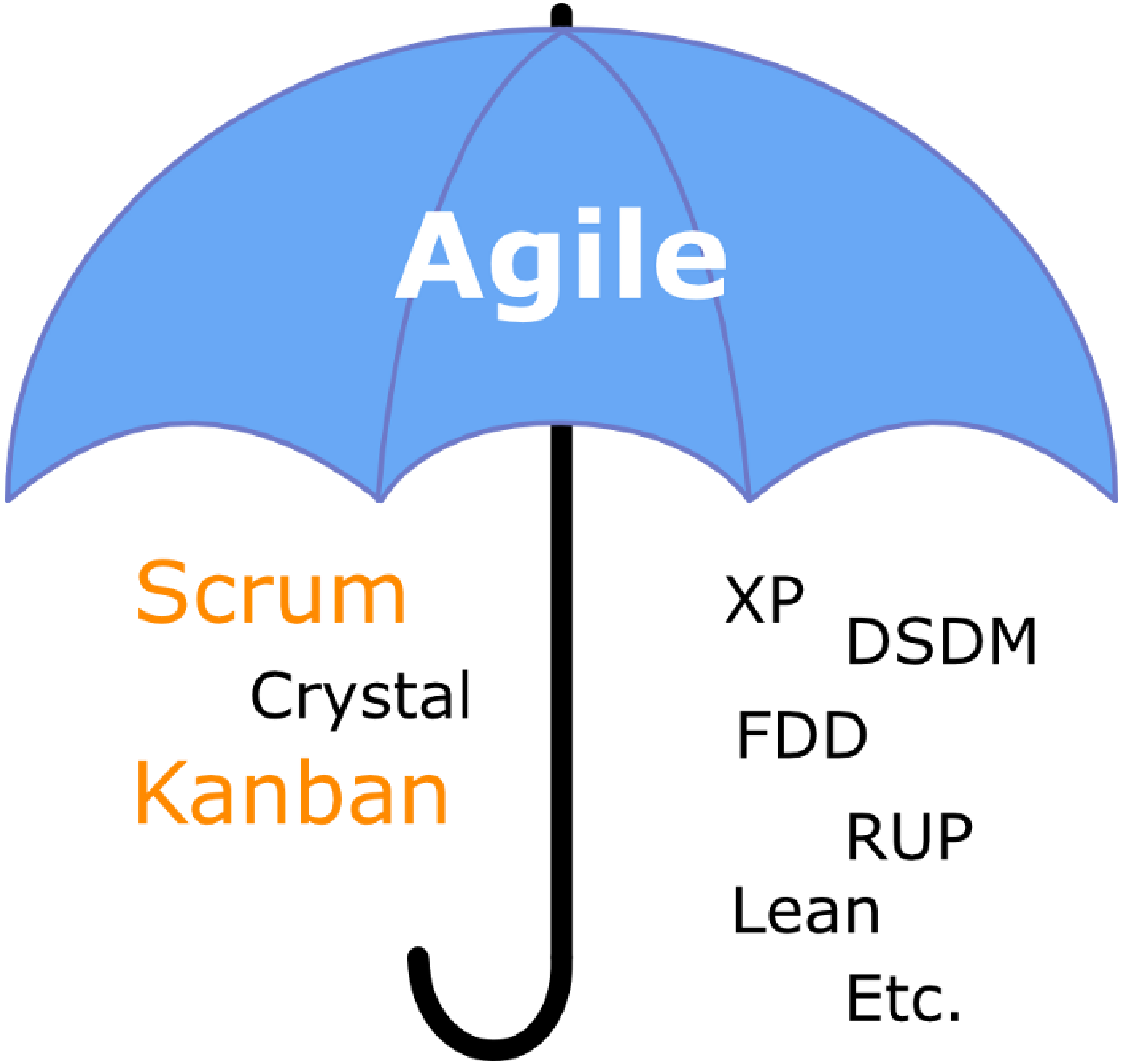
among self-organizing and cross-functional teams

who focus on delivering customer value as early and as often as possible.

What is Agile?

Any product development approach or general philosophy that follows the spirit of the guiding practices and principles in the Agile Manifesto is considered Agile

What is Agile?



Agile

Scrum

Crystal

Kanban

XP

DSDM

FDD

RUP

Lean

Etc.

Agile versus Traditional

The assumptions we make

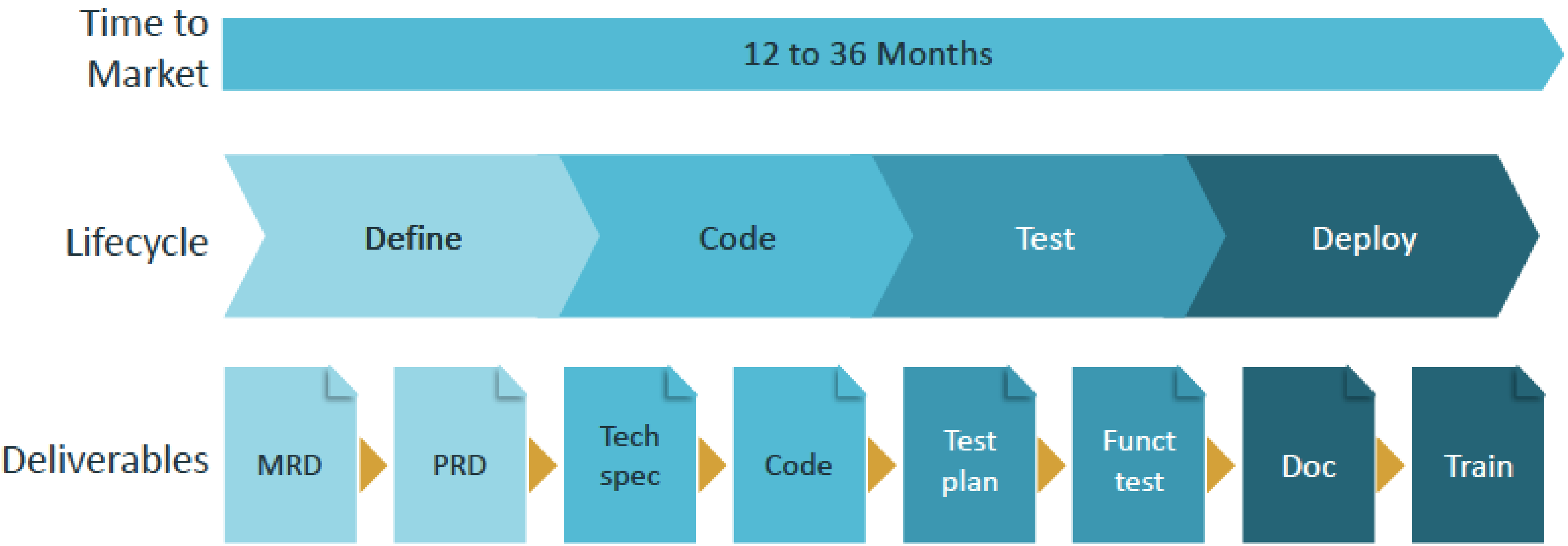
	WATERFALL	AGILE
REQUIREMENTS	With enough time, **can** figure out well-defined requirements	Customers **cannot** fully understand or describe requirements up front
CHANGES	Changes will be small, and therefore manageable	Changes will be constant, so deliver in smaller increments
SYSTEM INTEGRATION	Will go smoothly	Integrate from beginning and integrate constantly
INNOVATION	**Can** be done on a predictable schedule	**Cannot** be done on a predictable schedule, but can deliver most valuable features earlier to get fast feedback
PROCESSES AND TOOLS	Processes and tools will capture data and metrics providing key information to decision-makers to avoid challenges	Focus more on individuals and interaction rather than processes and tools; can usually do this with post-it notes
AUTHORITY	Command and control structures will ensure everyone stays on track	The teams themselves are self-directed and determine the best way to work
MEASURE OF SUCCESS	Adherence to the original plan is the primary measurement	Working, tested software is the primary measurement

The approaches we take for Resources

	WATERFALL	AGILE
TEAM STRUCTURE	Non-dedicated teams (Have to go through Forming, Storming, Norming, Performing, every single time)	Dedicated teams (Once Performing, always Performing)
PUSH vs PULL	Push approved projects right away to individual resources	Dedicated teams pull the next high priority item
SCOPE	"Get it All Done"	Break down to smaller deliverables and finish highest value ones rapidly ("Stop Starting and Start Finishing")
ESTIMATING	Assumes we estimate and can forecast accurately "Absolute estimating"	Understands that human are horrible at absolute estimating, but very good at relative estimating
FLOW	Starting projects is a measure of success—leading to many projects in-flight	Work in process (WIP) is limited based on throughput
STAFFING	Project managers have to beg/borrow/steal resources	Work comes to the teams that are stable/dedicated
MEASURE OF SUCCESS	Full resource utilization	Velocity and value delivery

Traditional Development

Long, Large, Linear, Often Late



Time to Market

12 to 36 Months

Lifecycle

Define

Code

Test

Deploy

Deliverables

MRD

PRD

Tech spec

Code

Test plan

Funct test

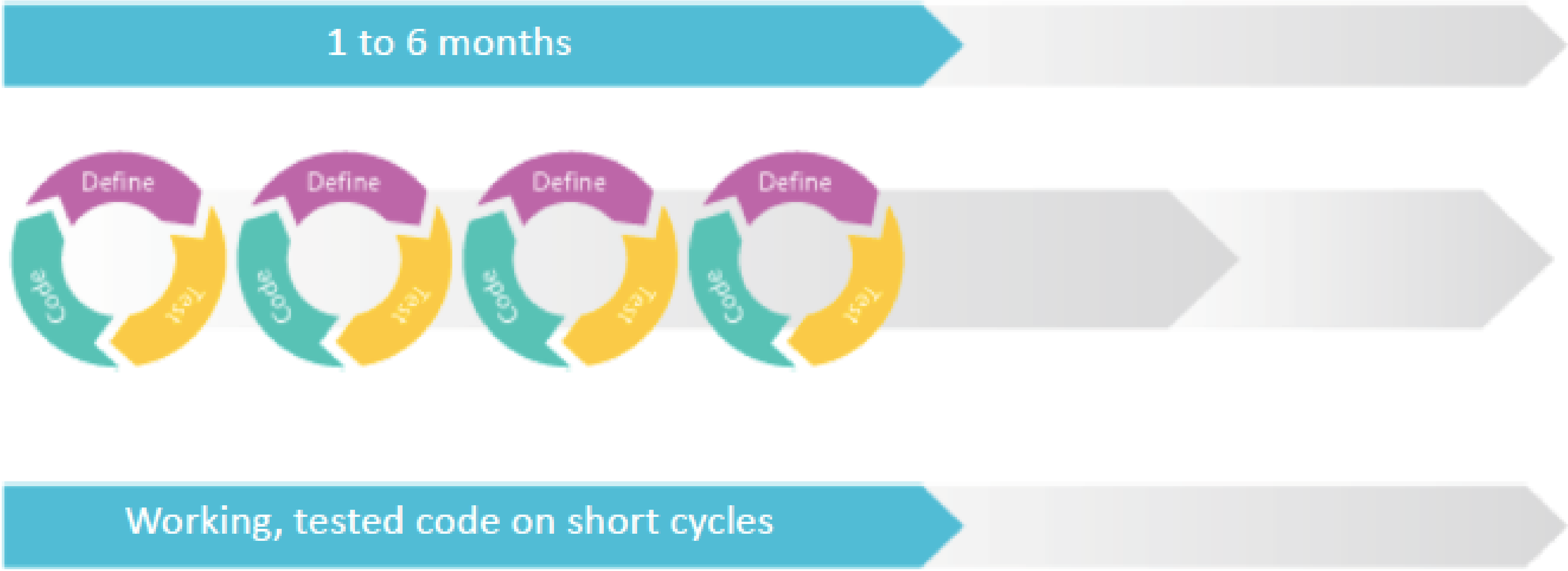
Doc

Train

Agile Development

Iterate, Increment and Innovate

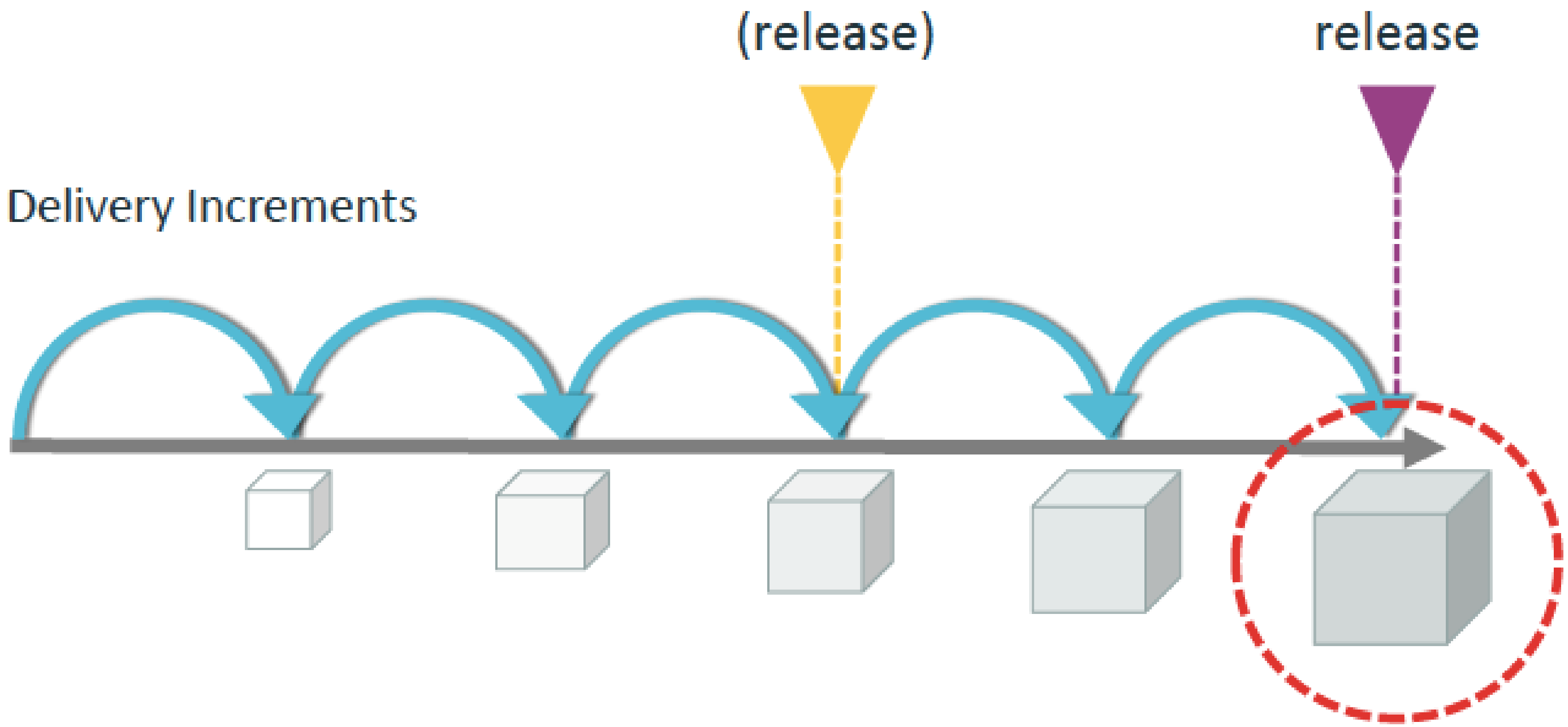
Time to Market



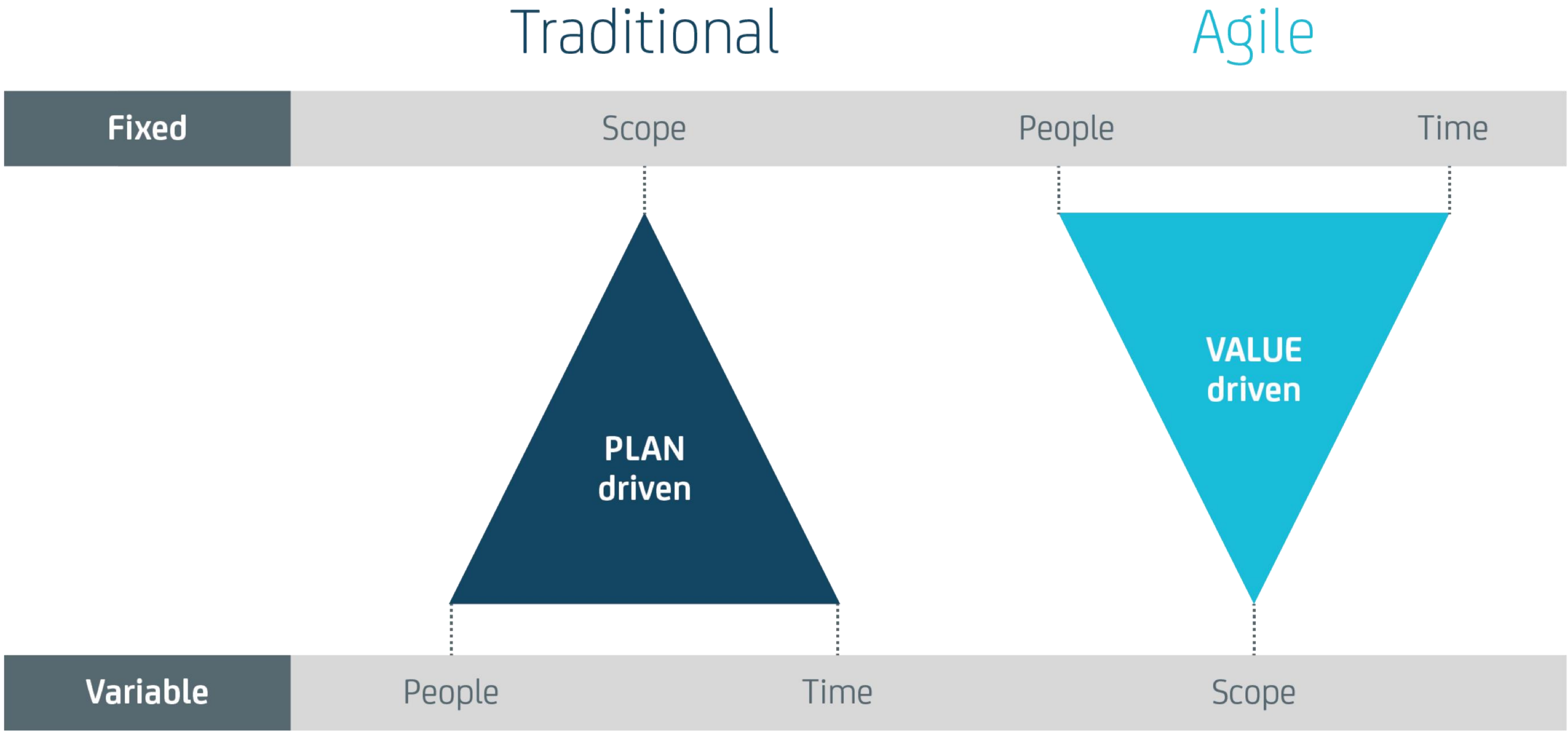
Lifecycle

Deliverables

Agile Delivery



Agile Paradigm Shift



Agile Planning

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Agile = No more planning?

WE'RE GOING TO TRY SOMETHING CALLED AGILE PROGRAMMING.
THAT MEANS NO MORE PLANNING AND NO MORE DOCUMENTATION. JUST START WRITING CODE AND COMPLAINING.
I'M GLAD IT HAS A NAME.
THAT WAS YOUR TRAINING.
www.dilbert.com scottadams@aol.com
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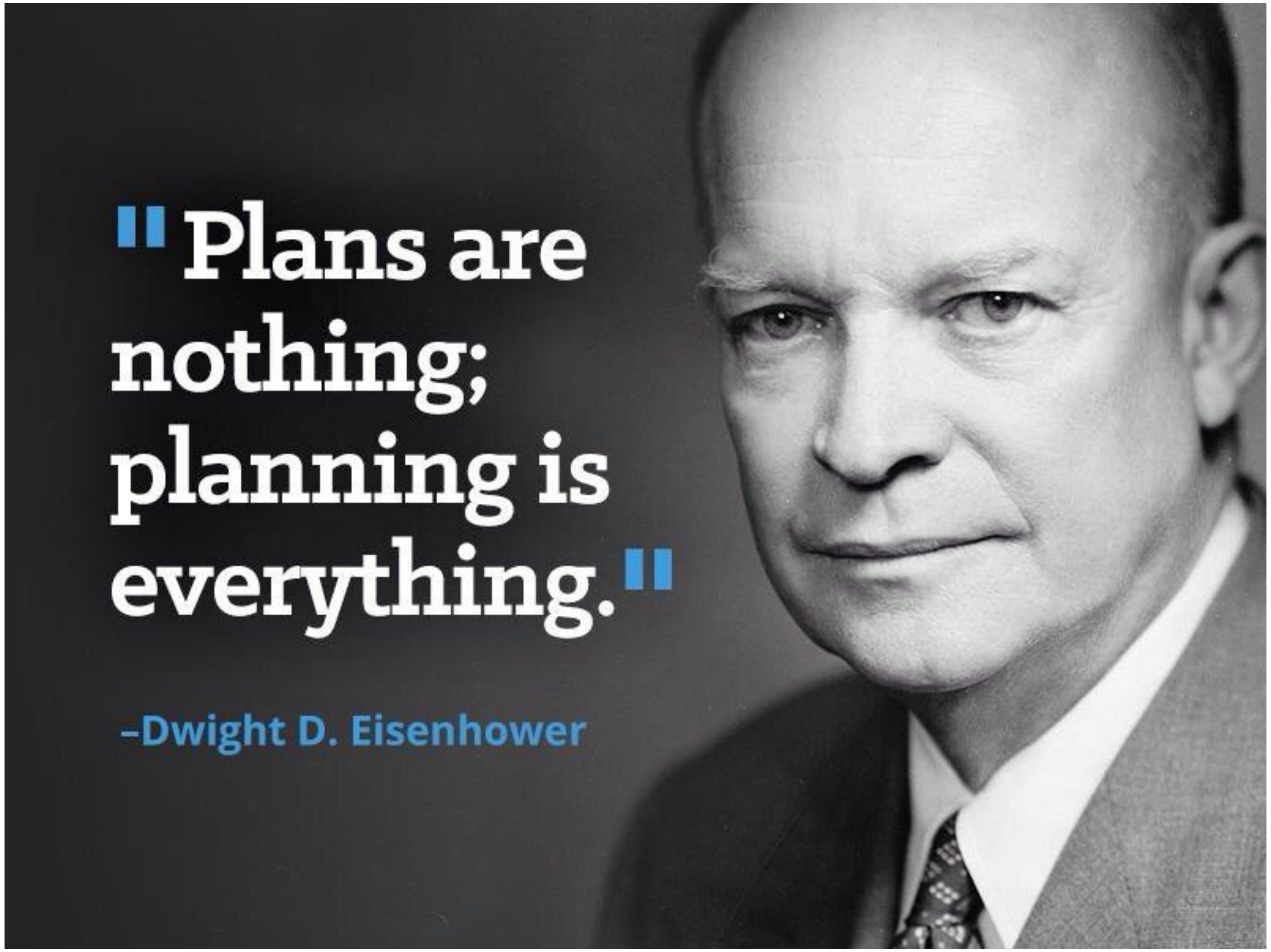
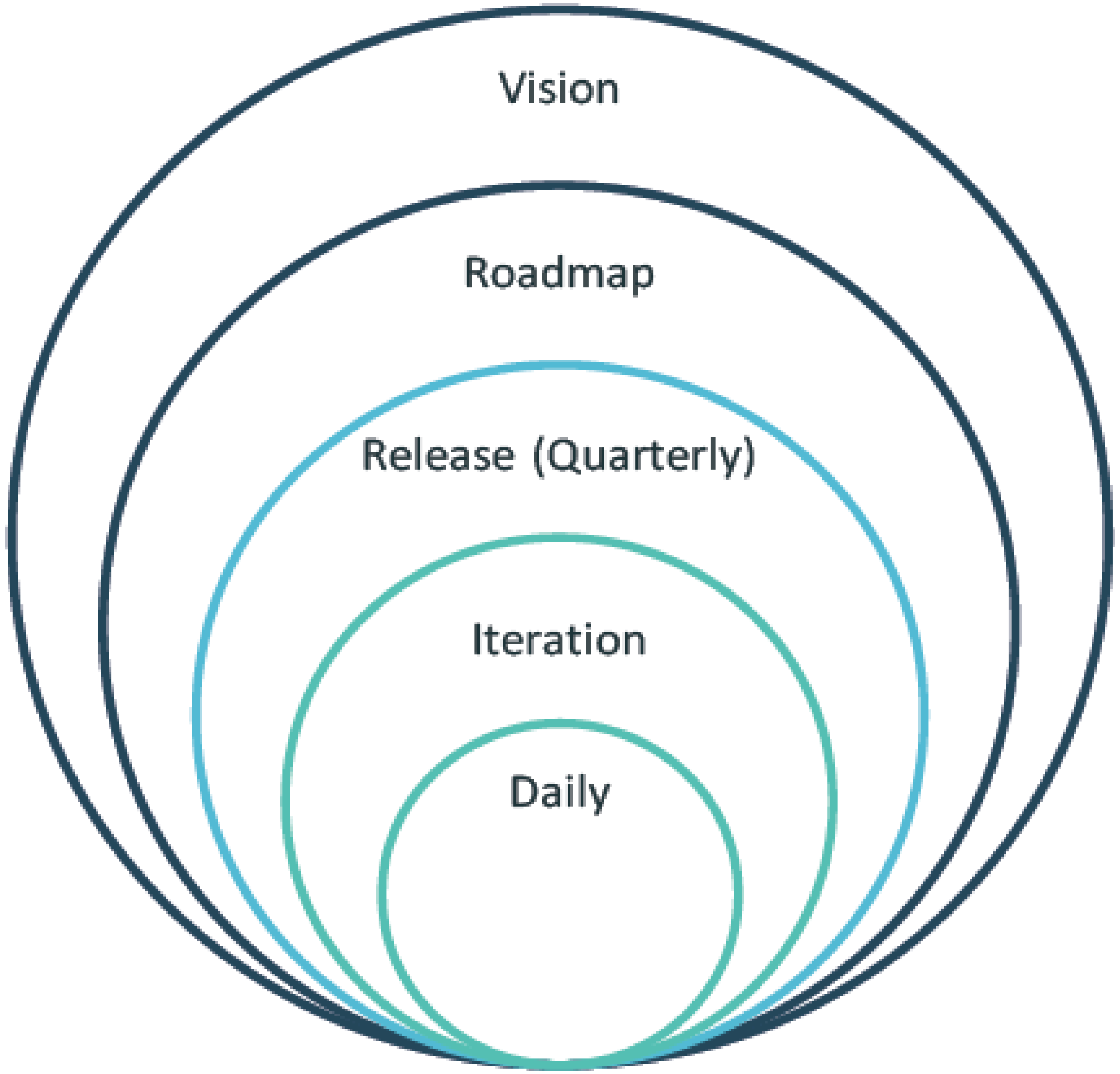
Planning is everything



5 Levels of Planning



Planning

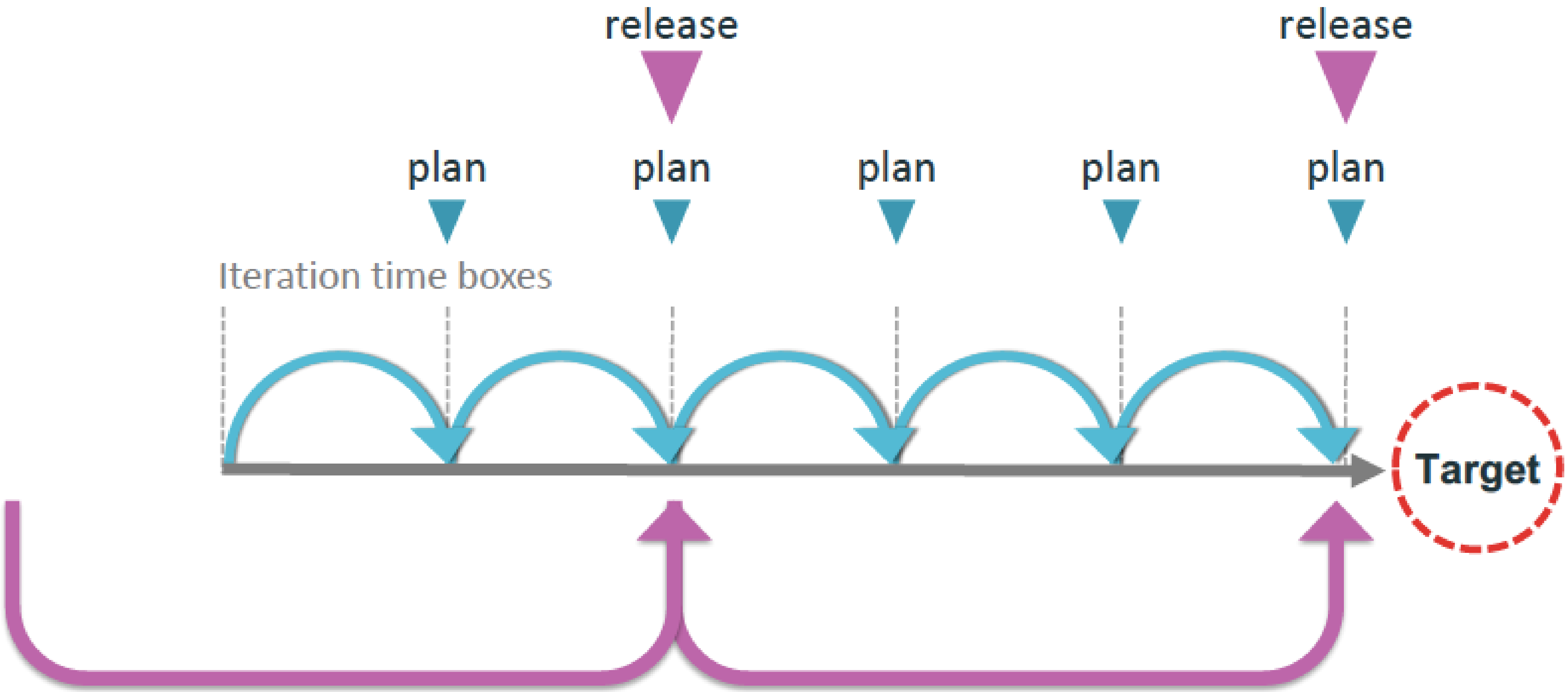
TRADITIONAL	AGILE ITERATION 0
Expert analysis	Whole team
Unknown duration	Time-boxed
Detailed	Just enough
Limit changes	Plan to re-plan

Iteration 0

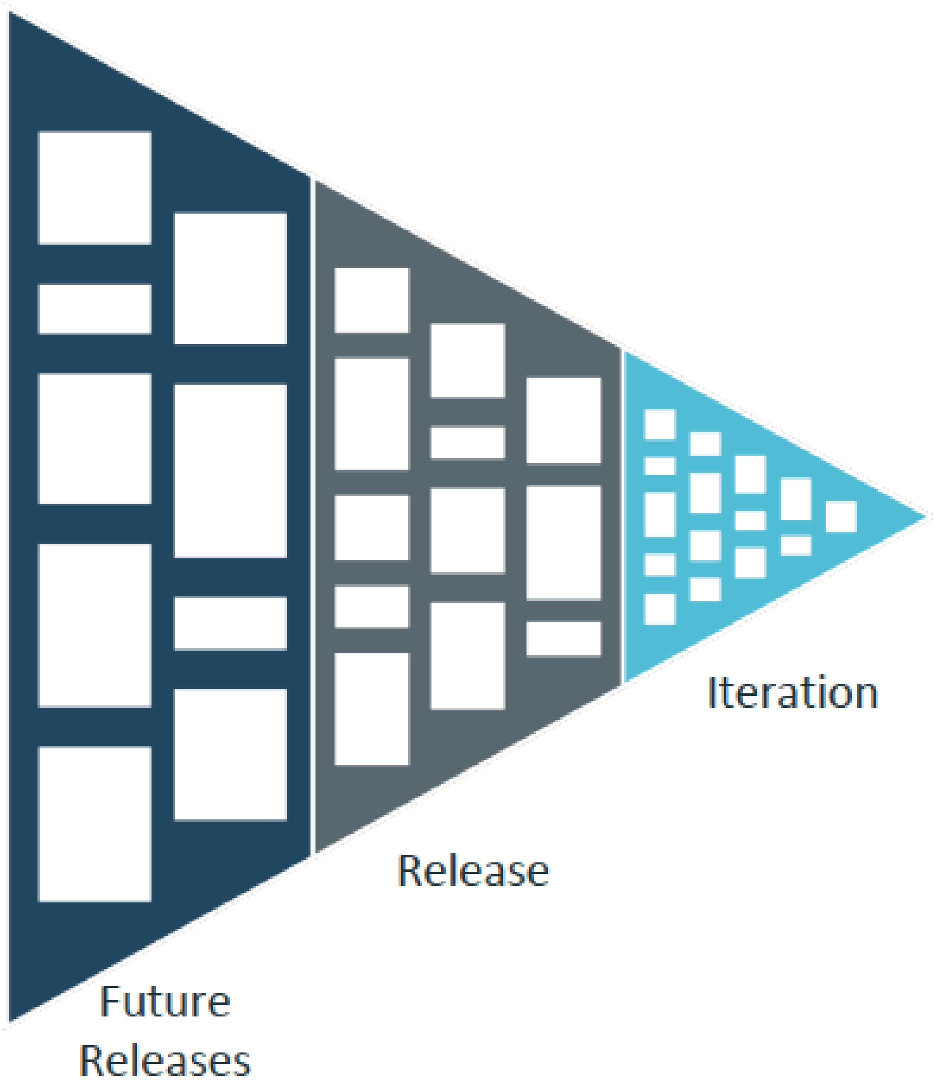
- Create the initial backlog requirements
  - Story writing
  - Estimating
  - Splitting
  - Prioritizing
- Architecture – initial
  - Emergent design
  - Spikes

- Planning – Determine:
  - Team(s) formation
  - Iteration length
  - Dependencies
  - Risks
  - Scheduling
  - Coordination

Iterative Cadences

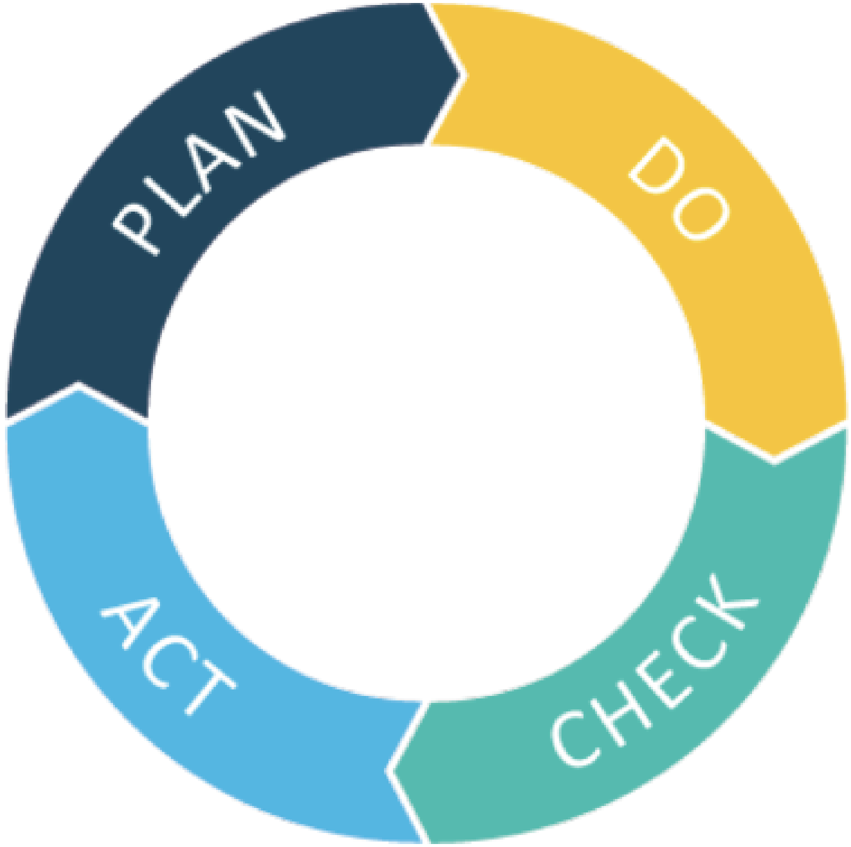


Just In Time, Progressive Elaboration of Requirements



- Constantly working to break down feature to prepare for planning
- Break off lower-priority bits
- Re-rank
- Add acceptance criteria
- Never “done”, evolves over time

Secret Sauce – Continuous Improvement



Questions?

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Let Rego be your guide.

Thank You For Attending regoUniversity

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- Click on **Maintain My Certification**
- Click on **Visit CCR's** button under the **Report PDU's**
- Click on **Report PDU's**
- Click on **Course or Training**
- Class Name = **regoUniversity**
- Course Number = **Session Number**
- Date Started = **Today's Date**
- Date Completed = **Today's Date**
- Hours Completed = **1 PDU per hour of class time**
- Training classes = **Technical**
- Click on **I agree** and **Submit**

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Don't forget to fill out the class survey.

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