

# THE BEST AGILE PROCESS



A discussion of XP, Scrum, Kanban... and TSP

THERE ARE NO  
BEST  
PRACTICES...

ONLY GOOD  
PRACTICES...

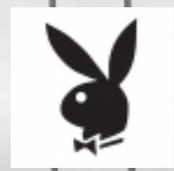
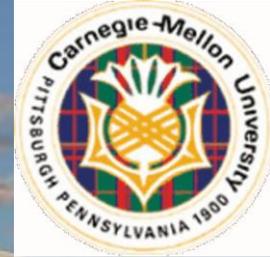
...IN CONTEXT



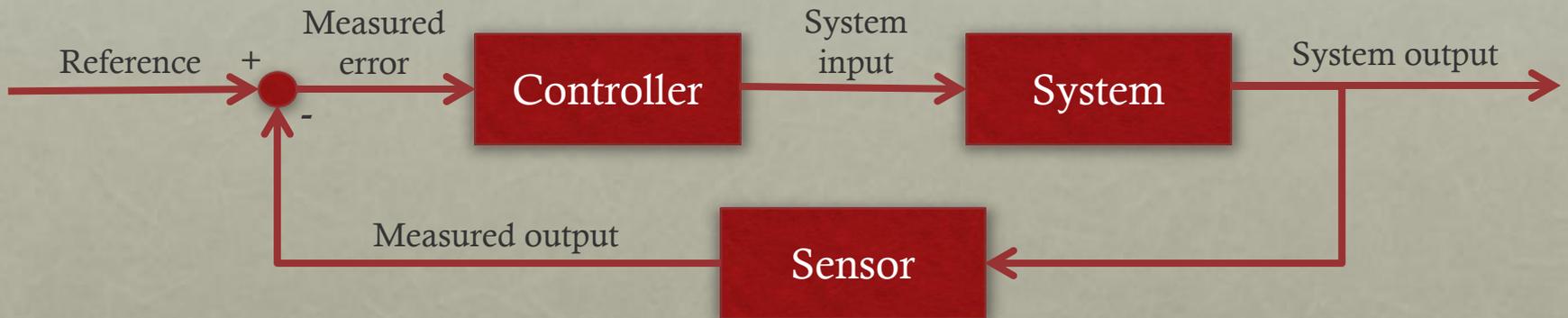


# LARRY MACCHERONE

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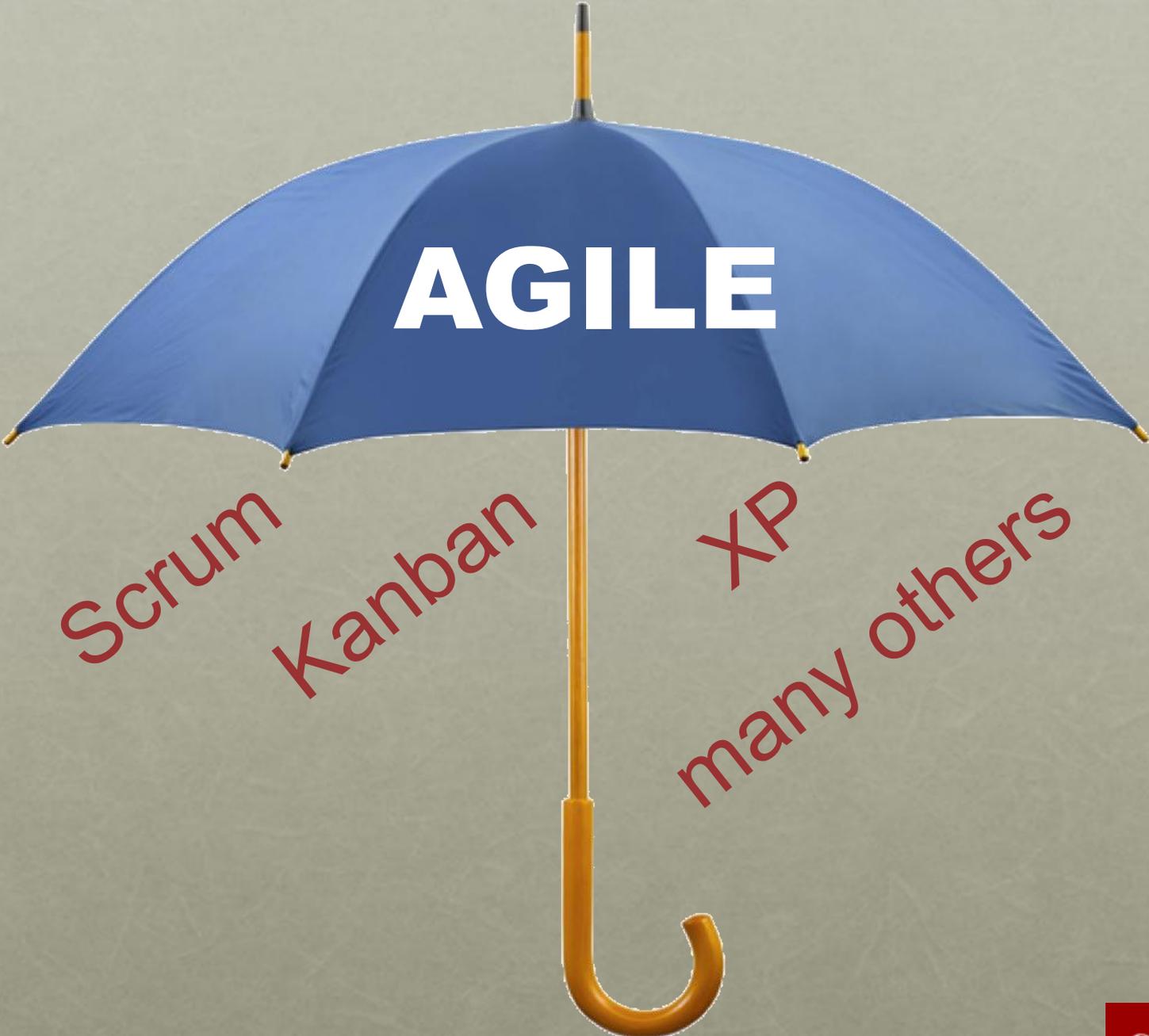
# WHAT IS AGILE?



+

# VALUES

	<b>TRADITIONAL/ DMAIC</b>	<b>AGILE</b>
<b>SWEET SPOT</b>	MANUFACTURING AND SERVICES	ENGINEERING AND DEVELOPMENT
<b>PROCESS FEEDBACK</b>	FORMAL, AND CAN BE HEAVY WEIGHT	LIGHT BUT OFTEN
<b>PRODUCT AND DESIGN FEEDBACK</b>	?	<b>EARLY, OFTEN, AND CLOSE TO THE CUSTOMER</b>
<b>PLAN FEEDBACK</b>	?	FREQUENT BUT QUICK
<b>CULTURE</b>	STRUCTURED	COLLABORATIVE



# AGILE

Scrum

Kanban

XP

many others

TSP

REDUCTION IN  
COORDINATION  
COSTS  
(XP)

How is agile  
different?

CHANGE IN  
FEEDBACK  
EMPHASIS  
(SCRUM)

REDUCTION  
IN  
EVOLUTION  
COSTS  
(KANBAN)

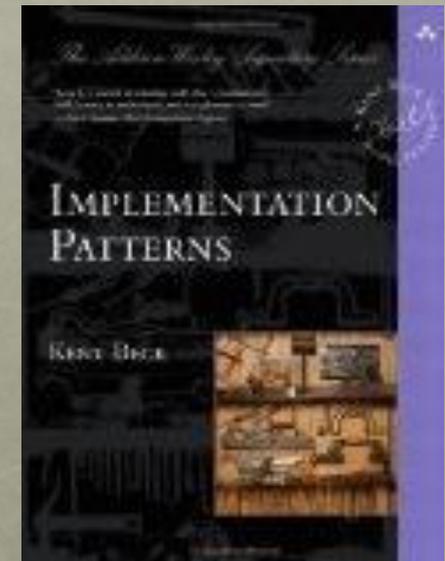
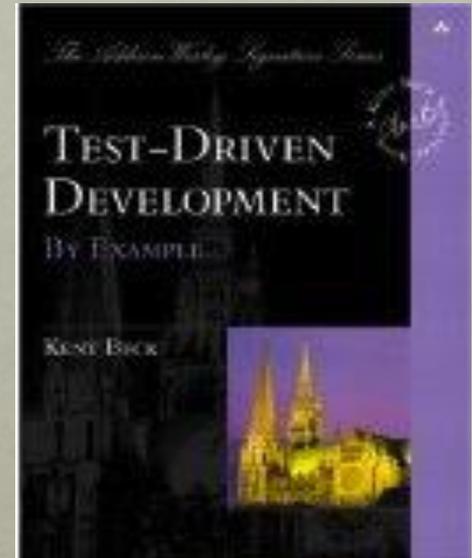
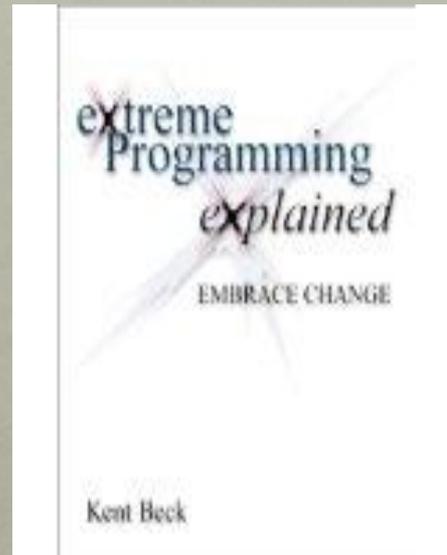
XP

FOCUS:  
ENGINEERING  
PRACTICES

BEST AT:  
REDUCTION IN  
COORDINATION  
COSTS

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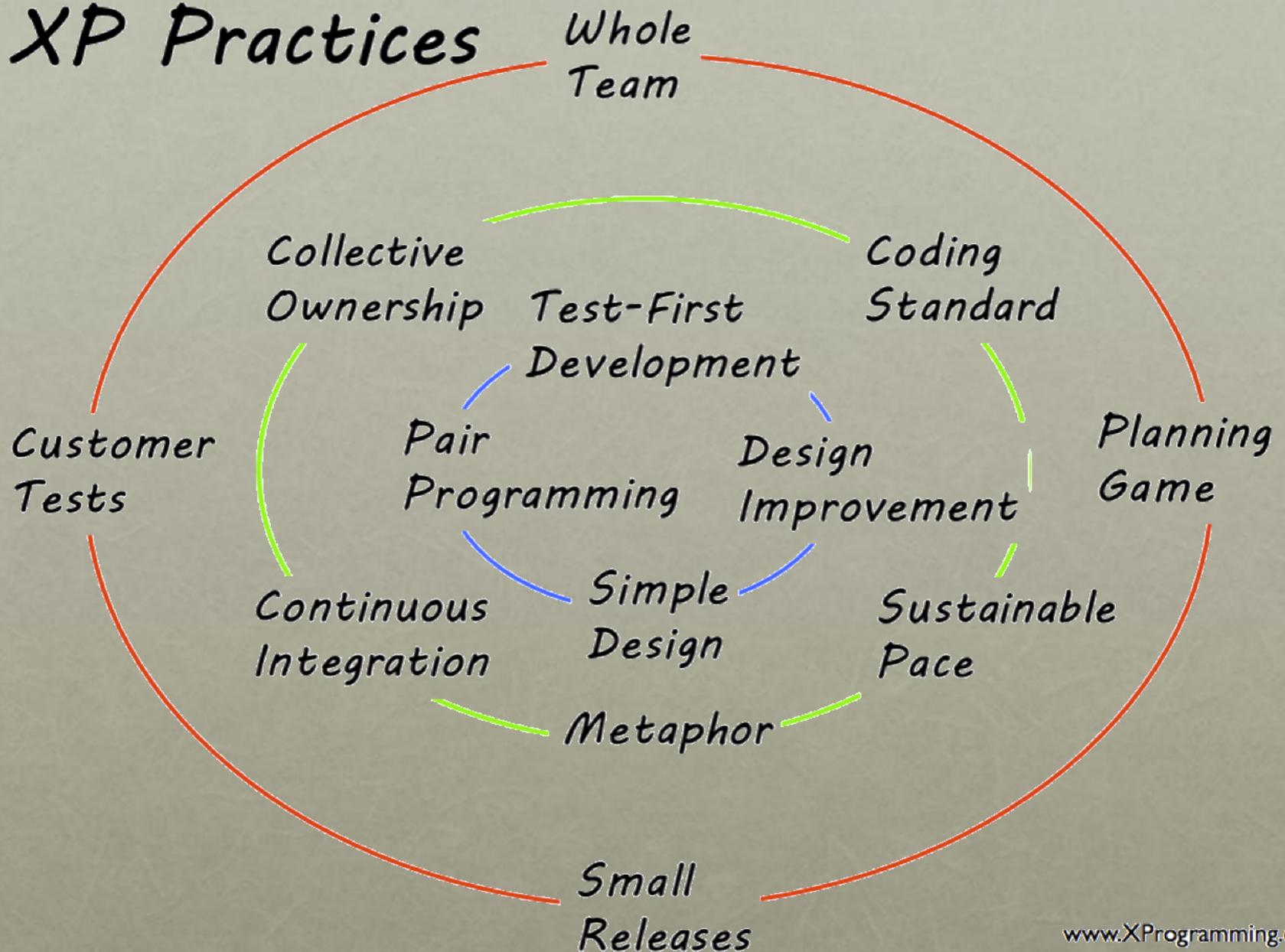




# **J**Unit A Cook's Tour

Erich Gamma, Kent Beck

# XP Practices



[www.XProgramming.com](http://www.XProgramming.com)

# XP: REDUCES COORDINATION COSTS

- **Continuous integration**
- ~~Test driven development~~
  - Test-first design
  - **Comprehensive test suites**
- **Simple design**
- **Refactoring**
- **System metaphor**
- **Also:**
  - **Coding standard**
  - **Whole team**
  - **Pair programming**
  - **Collective code ownership**

# SIMPLE DESIGN

- |                               |  |
|-------------------------------|--|
| 1. All tests must pass        | <del>1. Passes tests (given TDD)</del>   |
| 2. No code is duplicated      | 2. Minimizes duplication                 |
| 3. Code is self-explanatory   | 3. Maximizes clarity (great identifiers) |
| 4. No superfluous parts exist | <del>4. Has fewer elements</del>         |

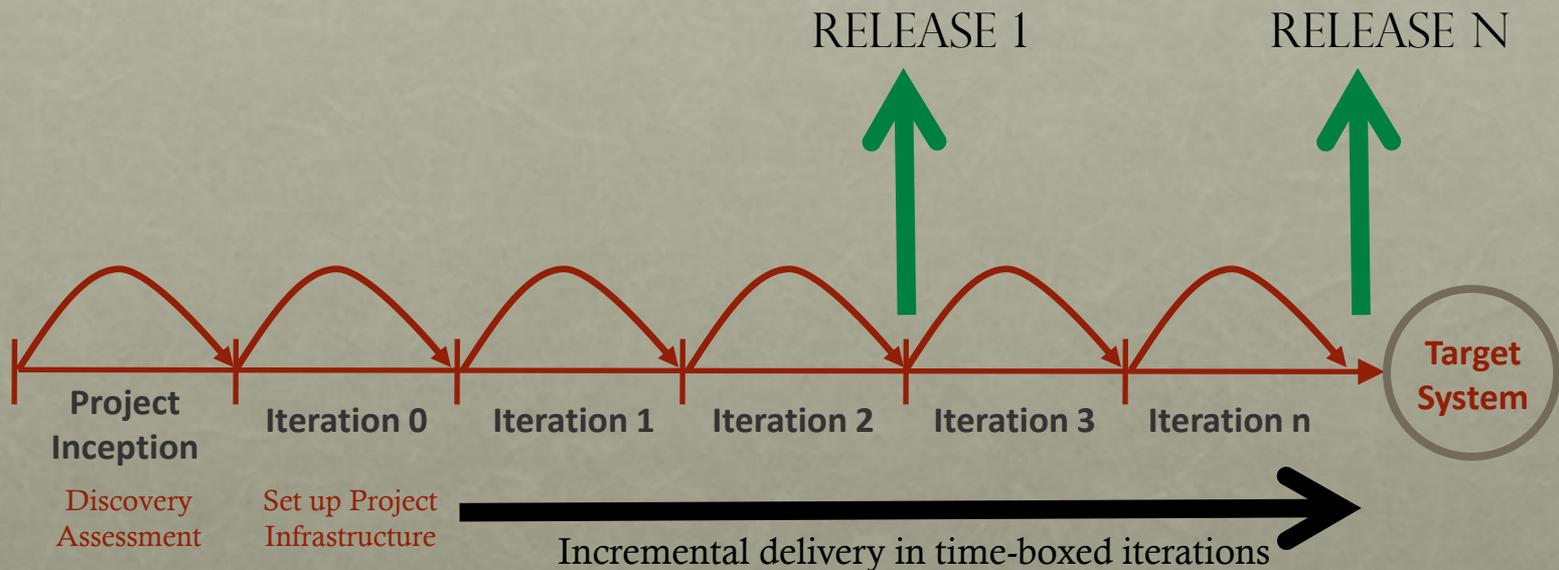
SCRUM

FOCUS:  
PROJECT  
MANAGEMENT

BEST AT:  
CHANGE IN  
FEEDBACK  
EMPHASIS

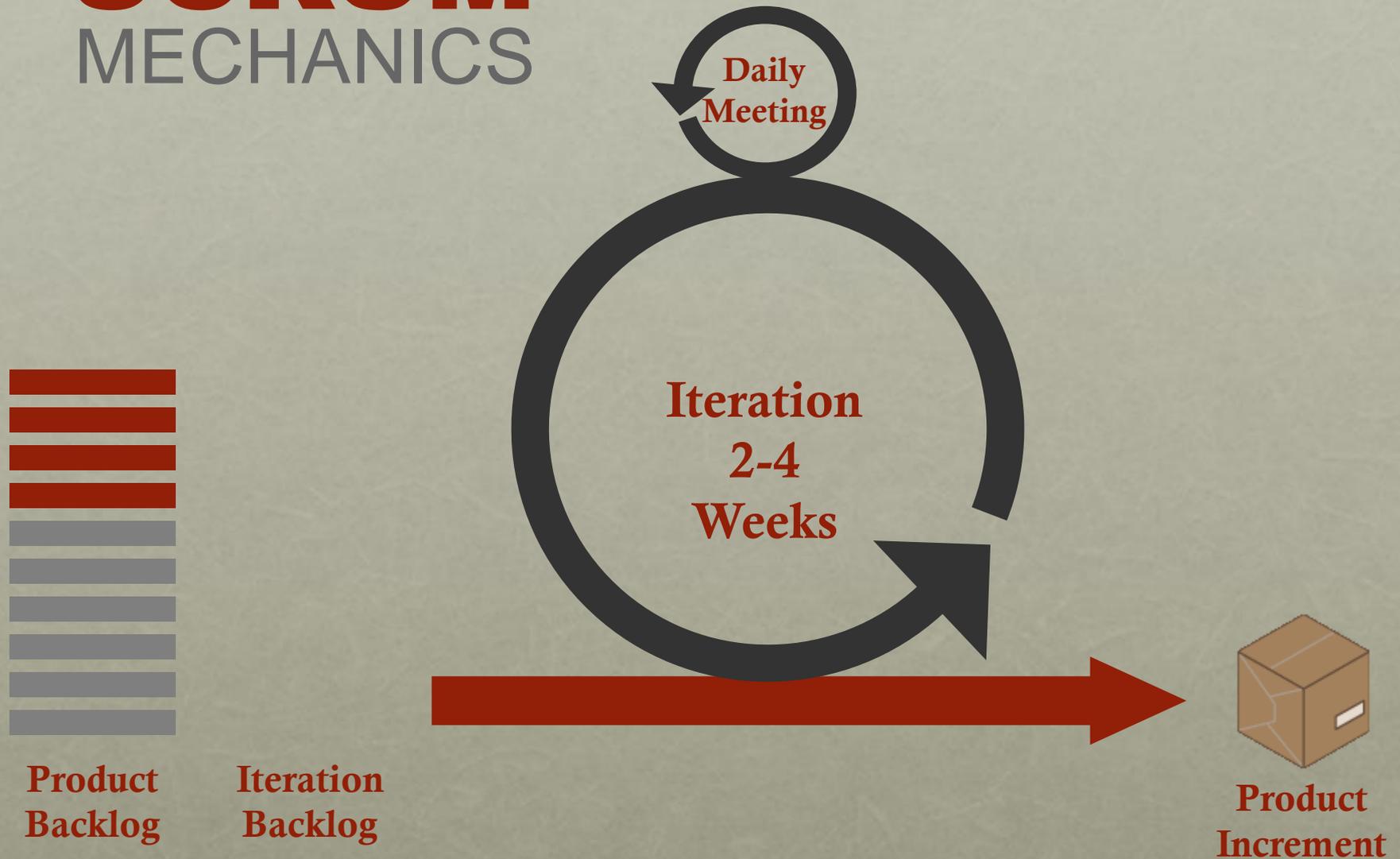


# AGILE PROJECT LIFECYCLE



# SCRUM

## MECHANICS



# DAILY STAND-UP

What did you  
work on **yesterday**?

What are you  
committing to **today**?

Do you have any  
**impediments**?

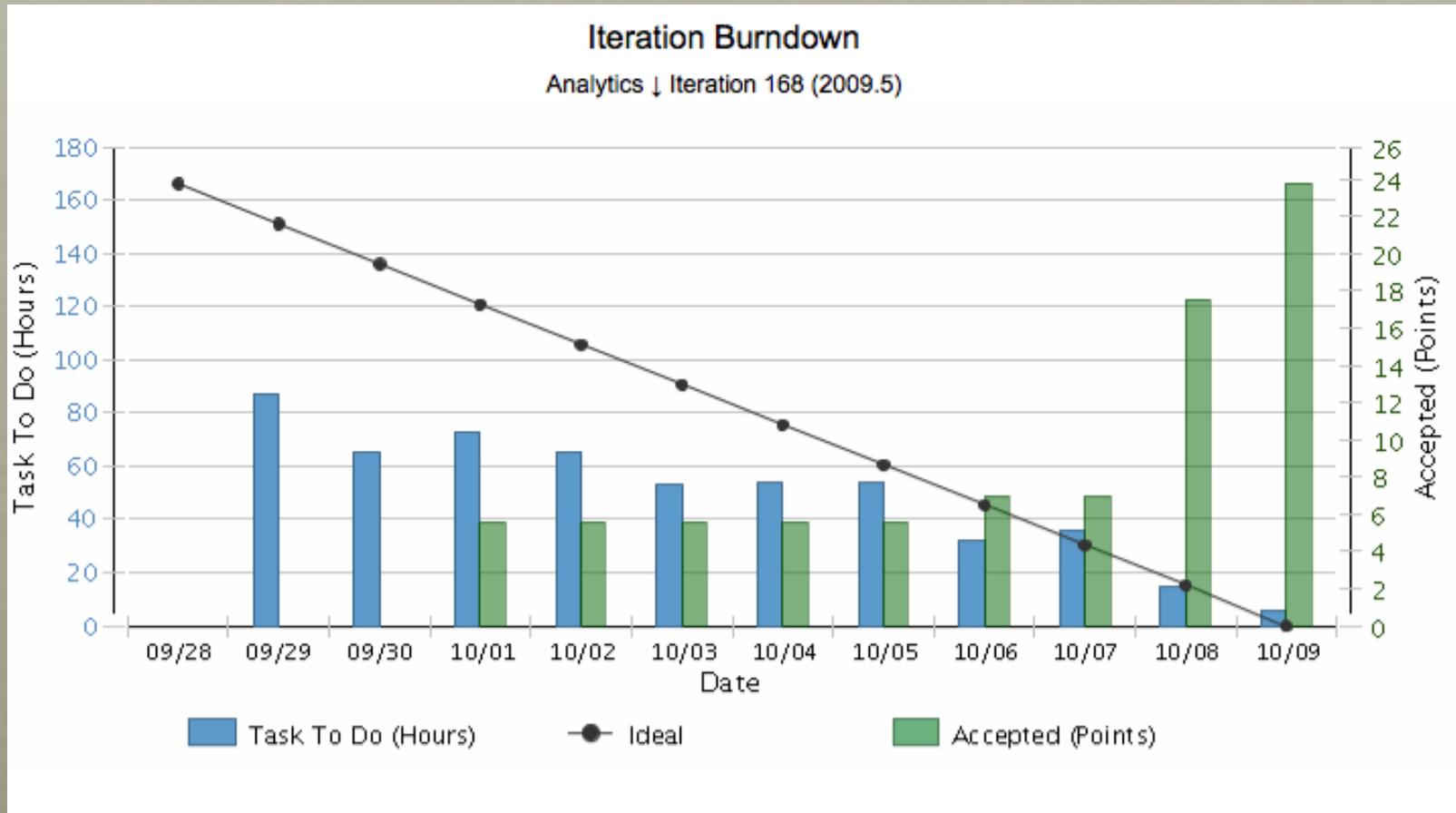


# POTENTIALLY SHIPPABLE PRODUCT



Demo and get feedback EVERY SPRINT!!!

# BURNDOWN CHART



# SCRUM ROLES

## DELIVERY TEAM

- Typically 5-9 people
- Full-time members
- Self-organizing
- Self-managing
- Cross functional
- No egos



## SCRUM MASTER

- Makes issues visible
- Facilitates the team in resolving them
- Removes external impediments
- Acquires resources
- Promotes organizational values
- Insists the team commits to high value, high quality, and scope for each iteration
- Expects the team will keep its commitments
- Turns the crank



## PRODUCT OWNER

- Represents (or is) the user/client
- One voice, even if not one person
- What to build and what sequence
- Conveys expectations
- Defines project goals



# SCRUM FRAMEWORK



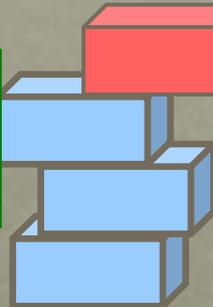
Vision



Release Planning



**Product Backlog**  
Prioritized Features  
desired by Customer



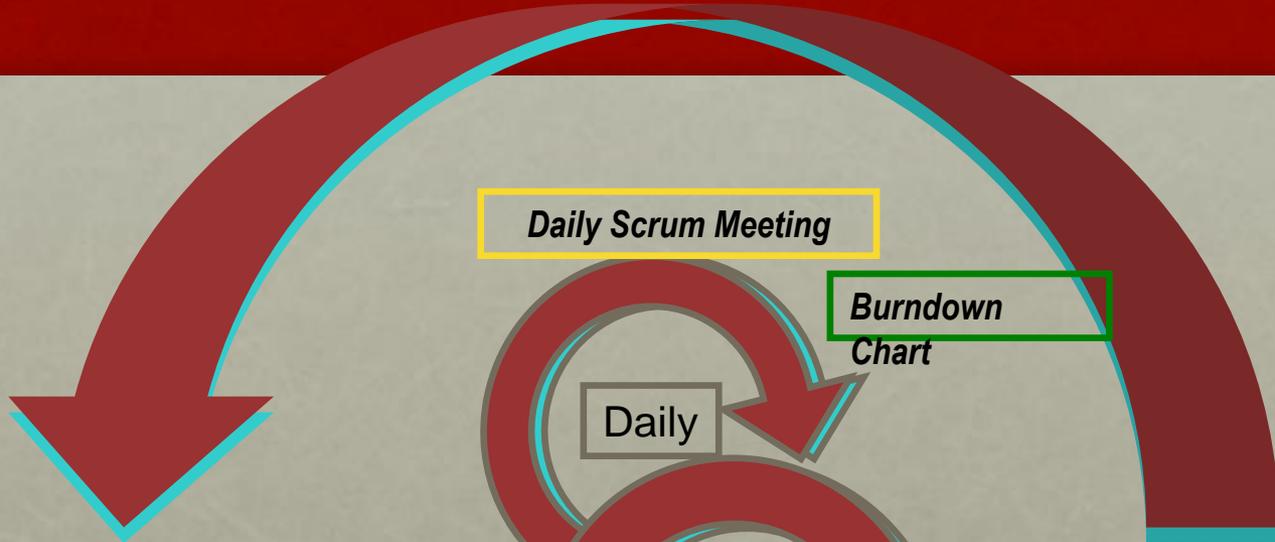
**Planning Meeting**

- Revisit Release Plan
- Review Product Backlog
- Create Sprint Backlog
- Commit to 2-4 weeks of work



**Sprint Backlog**

- Product Backlog Items assigned to Sprint
- Emergent list of estimated tasks



Daily Scrum Meeting

Burndown Chart

Daily



2-4 weeks

Sprint Retrospective

Sprint Review (Demo)



Product Increment

# KANBAN

FOCUS:  
INCREMENTAL  
IMPROVEMENT

BEST AT:  
REDUCTION IN  
EVOLUTION  
COST

The image shows a Kanban board with three columns: 'In Dev (8/5)', 'In Test (1/3)', and a partially visible 'Done' column. The board contains several task cards with titles, descriptions, and time spent in the column. A large red circle is overlaid on the board with the text 'Go faster! Get better!'.

Column	Count	Exit Policy
In Dev	8/5	Coding has completed and checked-in to cover all AC, or... Any AC not possible to do are removed or split out, negotiating with PO. Technical Walkthrough is complete. Integration, Load/Performance, and Unit tests have been written. All tests pass.
In Test	1/3	All of the ACs are met via the test Acceptance, Integration, Unit), and UI and Error Handling paths are covered. Validation Walkthrough complete. Defects on a test server & have v other guidance in wiki.

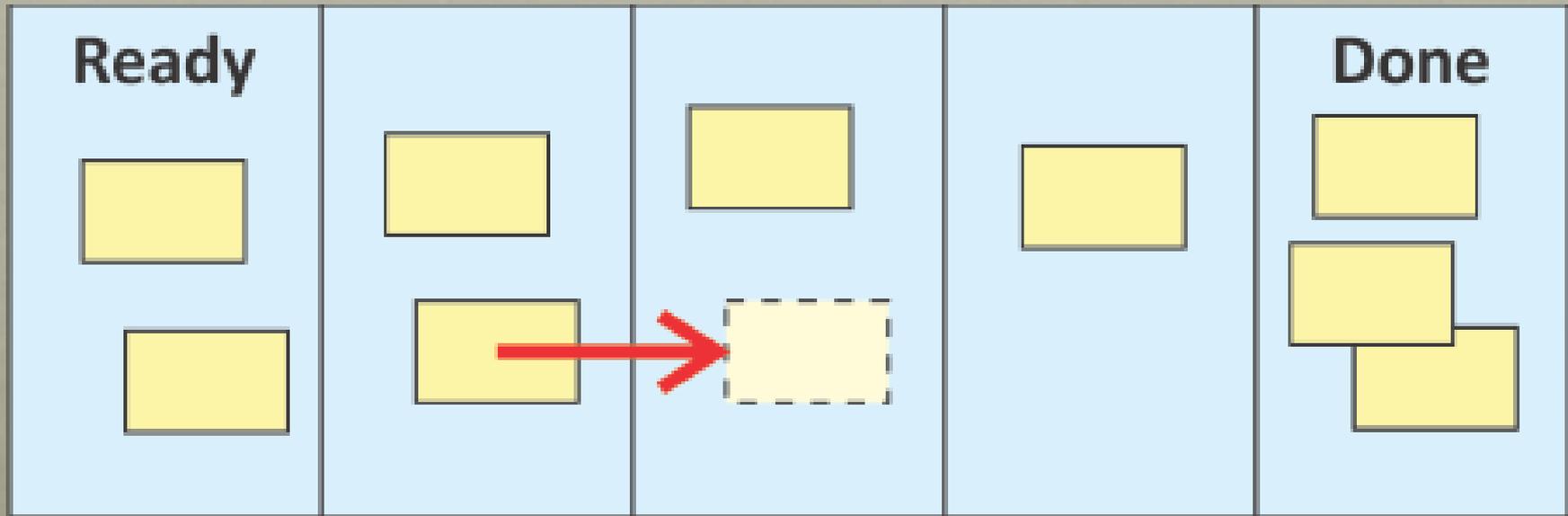
Task Cards in 'In Dev' column:

- No Owner (No Owner icon) - Daily Chart Component - 2 days in this column
- Jeff (Jeff icon) - Servers are handled - 2 days in this column
- Eric Lifka (Eric Lifka icon) - 2 days in this column
- Jeff (Jeff icon) - Location or workspace (for - 11 days in this column
- S41375 - Move to latest version of Sch... - 11 days in this column
- S41350 - Add c\_ to custom field names - 12 days in this column
- DE14340 - Data anomalies in ETL - 19 days in this column
- DE14303 - Reports Timeout sometimes when two users from the same sub run reports simultaneously - 25 days in this column

Task Cards in 'In Test' column:

- more than one thread - 11 days in this column

# A KANBAN

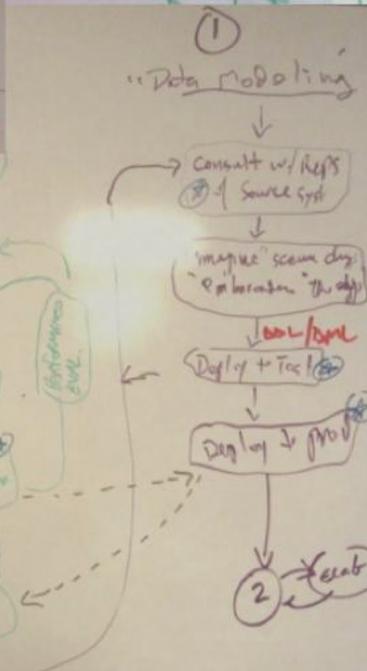
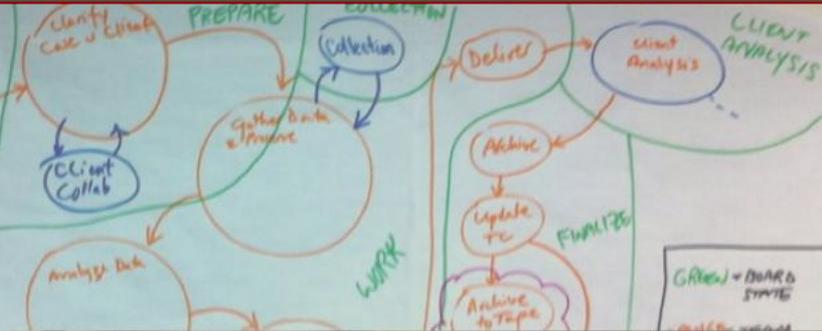
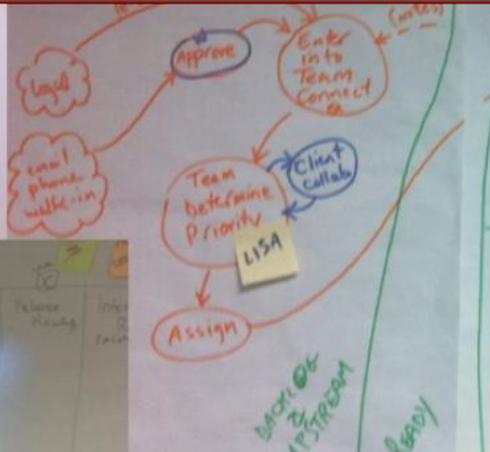
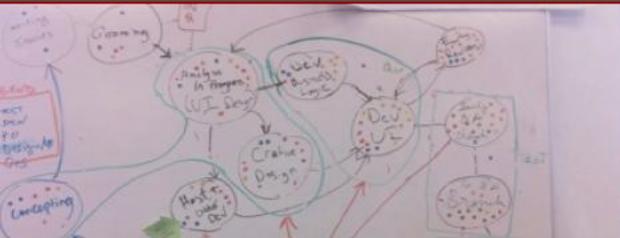


# CHARACTERISTICS OF THE KANBAN METHOD

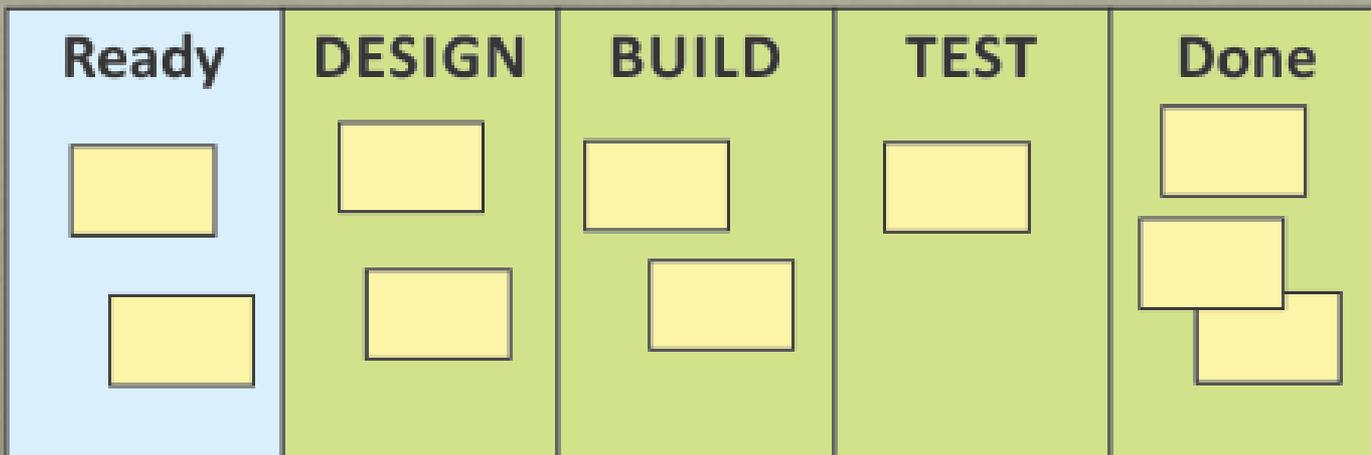
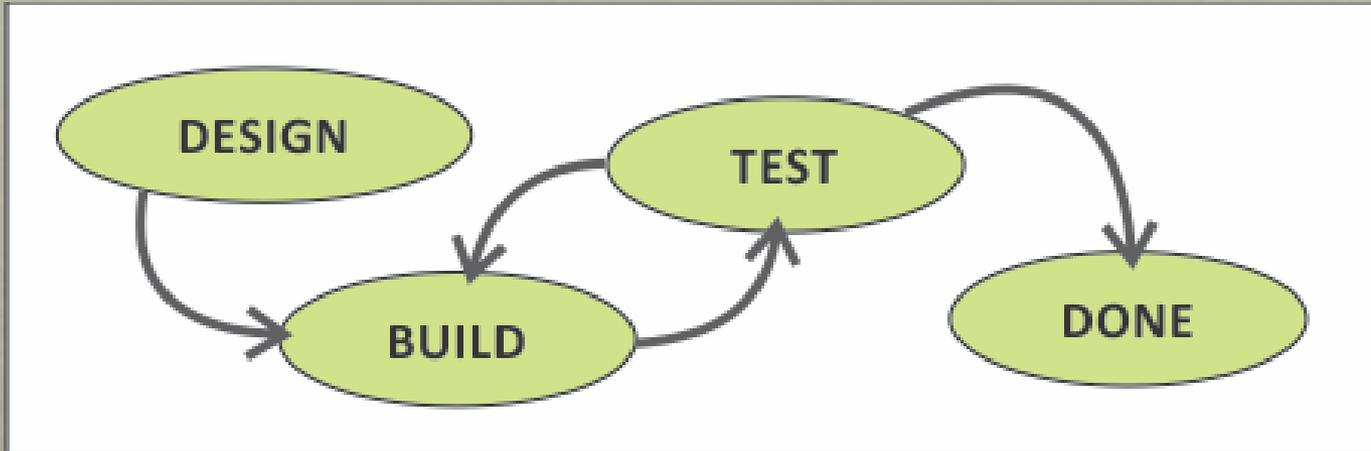
0. Start where you are
1. Visualize workflow
2. Limit WIP
3. Make management policies explicit
4. Manage flow
5. Improve collaboratively

Adapted from Kanban by David J. Anderson

# O. START WHERE YOU ARE



# 1. VISUALIZE WORKFLOW



# 1. VISUALIZE WORKFLOW

**Legend:**  
Grey - Sales/marketing support  
Blue - Thought leadership, speaking, blog  
Red - Services delivery and prep  
Green - Internal, collab, rocks, team stuff  
Yellow - Personal  
Purple - Courseware/CP/R&D  
Orange - R&D  
Teal - Overhead, admin, email

**Backlog**

- 57 Rick Simmons: Kanban info Guide: investigation and outline draft 1
- 66 H Rick Simmons: Write up Extreme Tis improvements
- 67 H Rick Simmons: Write up notes on Fancy Candy Game (or Gingsbread Game) (collab w Ann?)
- 69 H Rick Simmons: Blog PFD Model
- 70 H Rick Simmons: Research CT-based unified metrics
- 71 H Rick Simmons: Outline for IKT, based on IAT, with notes
- 77 Rick Simmons: Follow up with Lary M on CT matrix
- 82 H Rick Simmons: Amadeus IAT prep
- 83 H Rick Simmons: Agile & Beyond session proposal on Lean Portfolio Mgmt (w/2aac)
- 84 Rick Simmons: Follow up with Mark Ringer on KB roadmap

**Ready**

- 65 H Rick Simmons: Write up Extreme Tis improvements
- 68 H Rick Simmons: Blog PFD Model
- 76 S Rick Simmons: Kanban info Guide: investigation and outline draft 1
- 79 S Rick Simmons: Outline for IKT, based on IAT, with notes
- 80 S Rick Simmons: Agile & Beyond session proposal on Upstream Kanban
- 81 S Rick Simmons: Agile & Beyond session proposal on Upstream Kanban

**Waiting**

- 76 S Rick Simmons: Kanban info Guide: investigation and outline draft 1
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**Working**

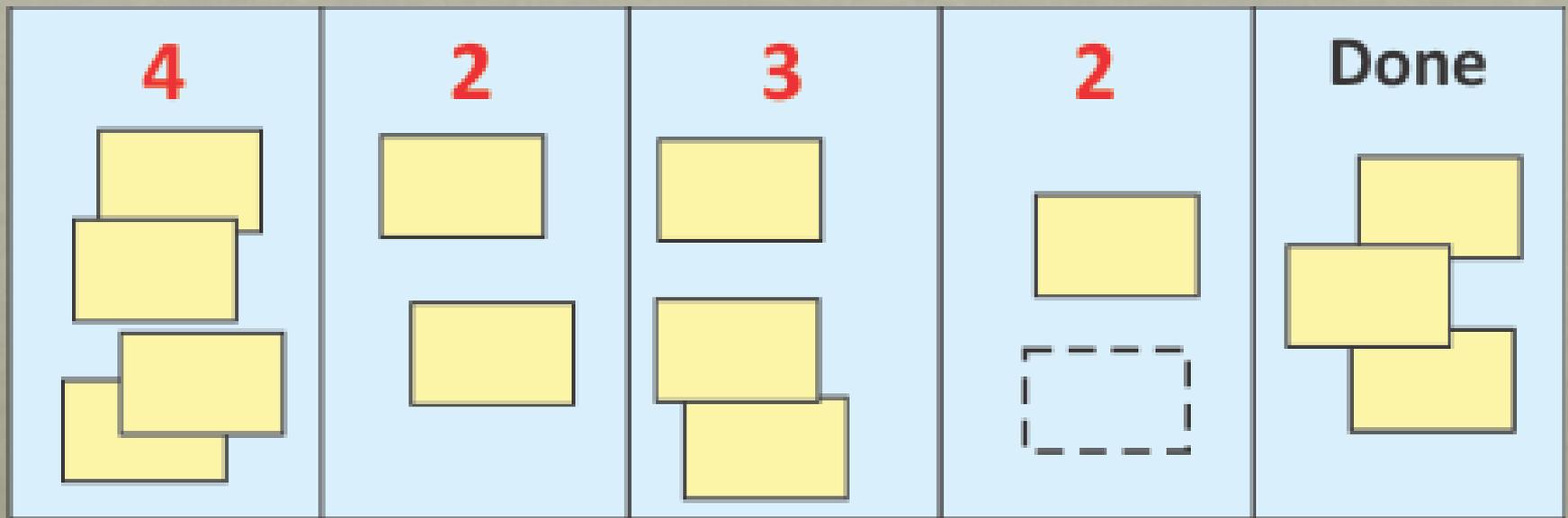
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- 84 Rick Simmons: Follow up with Mark Ringer on KB roadmap

**Kanban Board**

Filter by: [dropdown] | Show: [dropdown] Users

No Entry (100%)	Probable (7%)	Scope/Schedule (5%)	Delivery (12%)	
S35505 No Owner SOW-0029601 Travelers Bond & Financial Products	S34993 Jim W SOW-0039187 Synapse Group, Inc. [Onsite Product Training]	S30009 Julie Byrne SOW-0036716 Vastarise Capital Investments [2 hours RPT]	S35033 Sean Heuer SOW-0038538 GEHC [AT PT1]	S35036 SOW-0038538 GEHC [AT PT1]
S35536 No Owner SOW-0038322 Datacom	S34944 LongDa Yin SOW-0038572 Advert Software, Inc. - HQ [Onsite Product Training]	S34970 Tamara Haddon SOW-0038807 InfoPrint / Ricoh Production Printing Systems [Onsite Product Training]	S35034 Sean Heuer SOW-0038538 GEHC [AT PT2]	S35037 HP Labs L Training]
S35537 No Owner SOW-0029387 Pharos Systems International, Inc.	S34947 Andy SOW-0033567 Aleryx [Onsite Product Training]	S34974 Andy SOW-0029521 Level 3 Communications, LLC [Product Implementation]	S34978 Amy Meyers SOW-0039963 Meek Systems, Inc [Rally ALM Jumpstart(remote)]	S35113 SOW-0038538 Training]
S35538 No Owner SOW-0033284 TriNet HR Corporation	S34989 Andy SOW-0035147 Seagate - CO - EBI Division [Onsite Product Training]	S34988 Amy Meyers SOW-0036214/CF-15785 Radote Media [Remote Product Training]	S35035 Sean Heuer SOW-0038538 GEHC [Pre-call]	S34948 Julie Byrne SOW-0038620 Amadeus North America2, Inc [Remote Product Training]
S35539 No Owner SOW-0037203 Financial Times - UK	S34967 Amy Meyers SOW-0036721 GE Intelligent Platforms North America, Inc. [Remote Product Training]	S34982 LongDa Yin SOW-0029200 FareCompare [Rally ALM Jumpstart(remote)]	S34983 Amy Meyers SOW-0029630 Seagate Technology CO [Rally ALM Jumpstart(remote)]	S35038 Pharos systems [Product implementation]
S35541 No Owner SOW-0028337 AePCOA Ltd	S34977 LongDa Yin SOW-0038844 Microsoft - Entertainment and Devices [Onsite Product Training]			
S35542 No Owner SOW-0030060 Luma Corporation, Inc.	S35030 Amy Meyers			

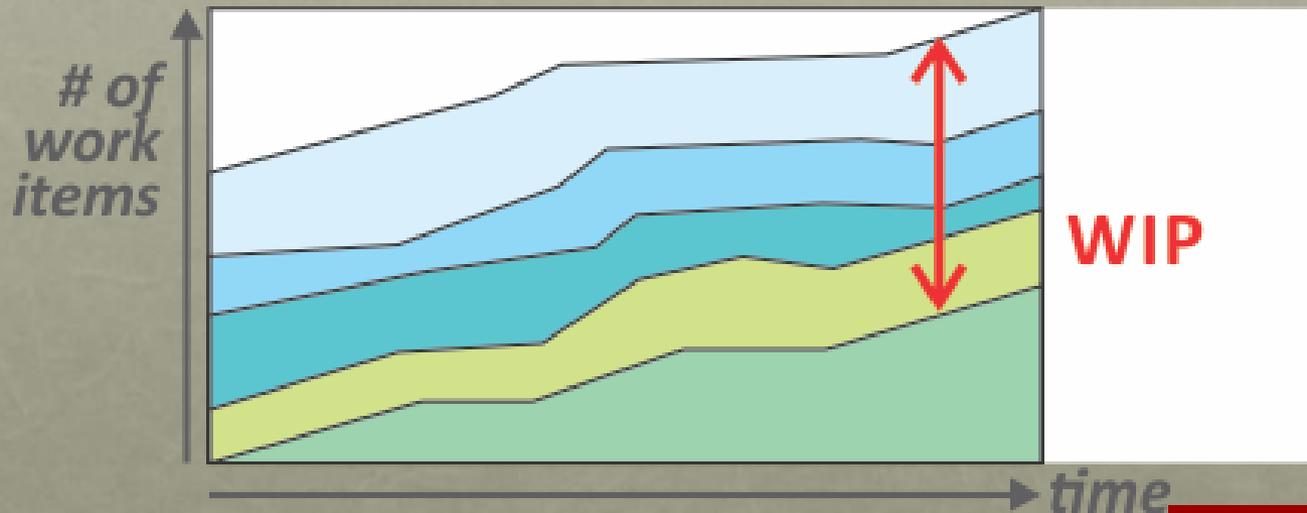
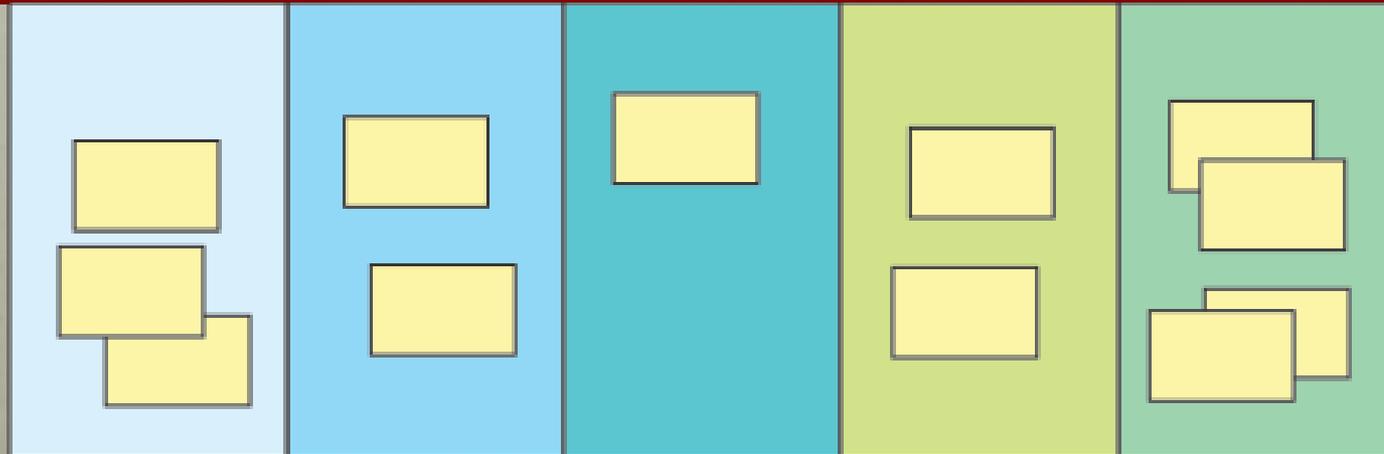
# 2. LIMIT WORK IN PROCESS



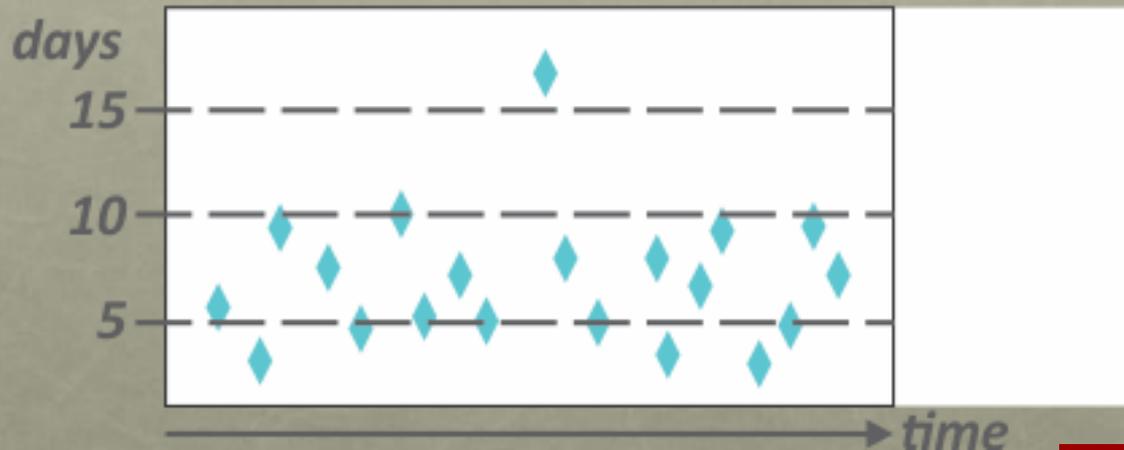
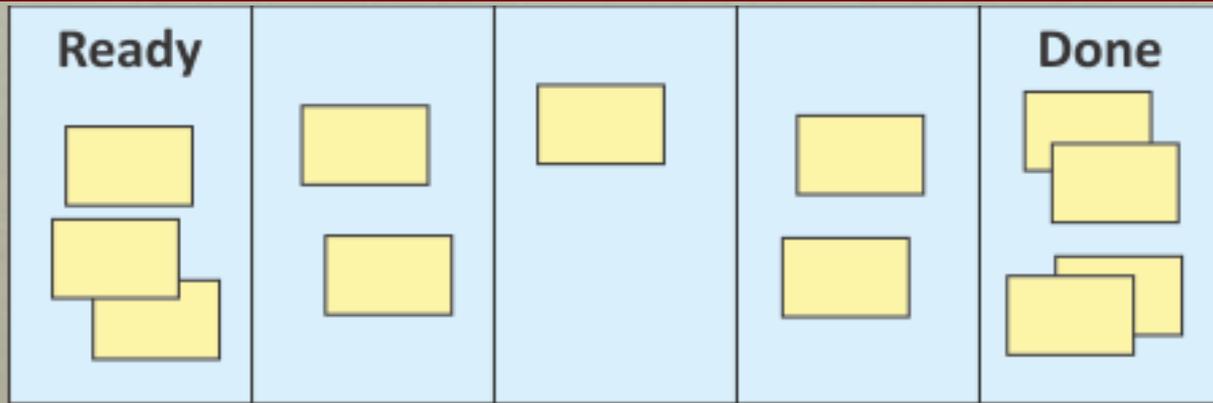
# 3. MAKE POLICIES EXPLICIT



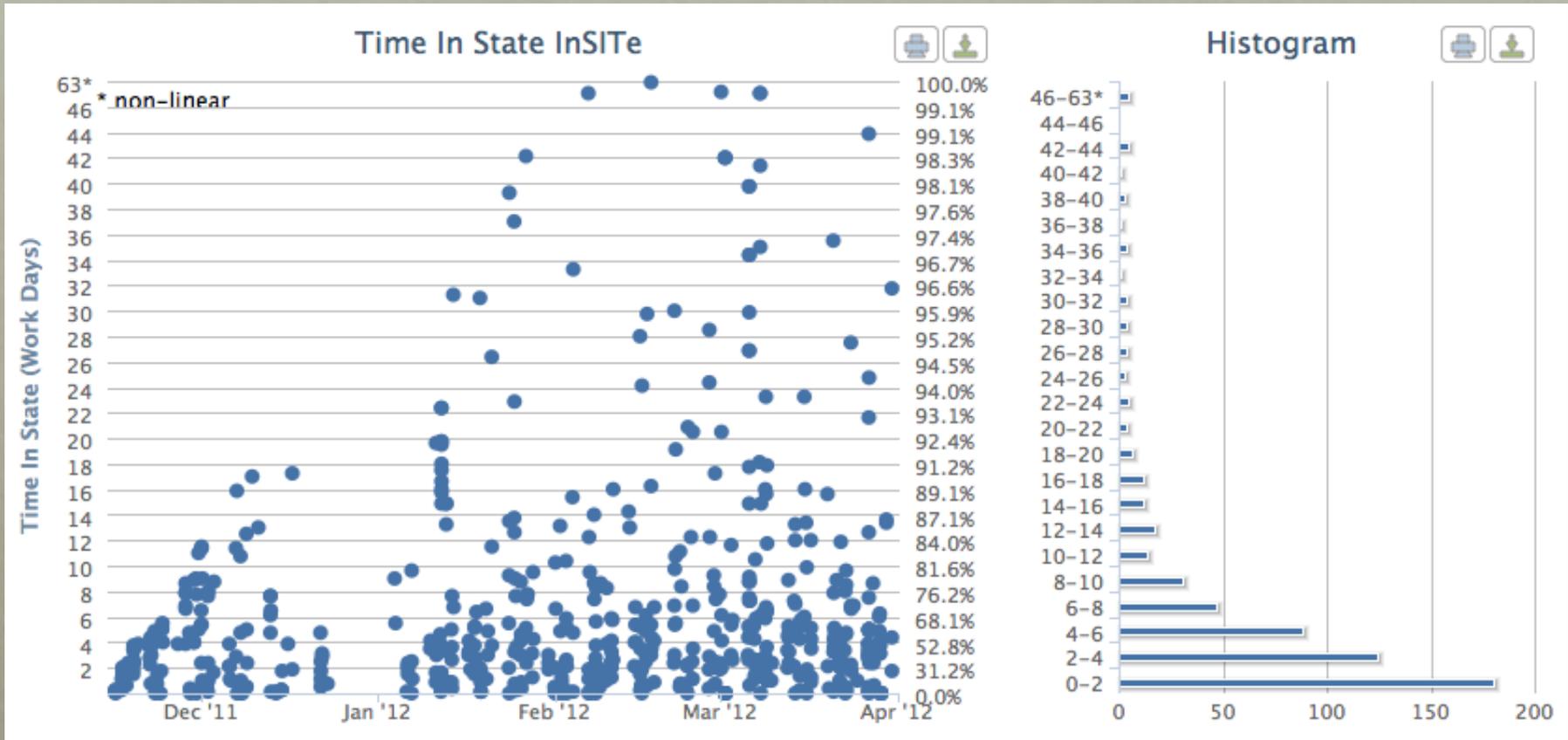
# 4. MANAGE FLOW: watch WIP

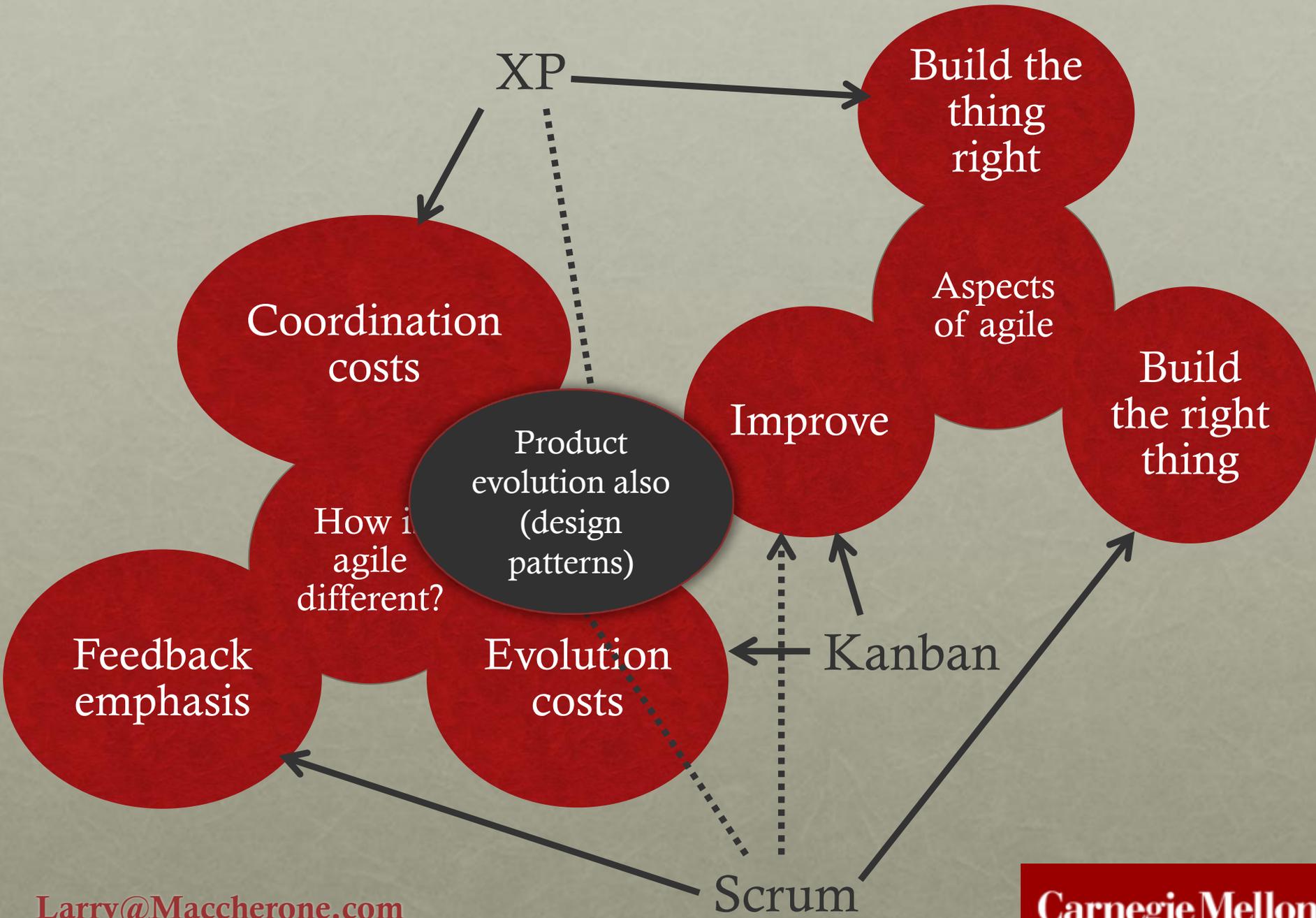


# 5. IMPROVE COLLABORATIVELY: measure outcomes



# 5. IMPROVE COLLABORATIVELY: use data for decision making





# THE TEAM SOFTWARE PROCESS (TSP)



Where does it fit?

# I RECOMMEND

1. Adopt XP engineering practices.
  - Add peer review.
  - Add design patterns and possibly more design/design review.
2. If you are doing product design and new to agile, adopt Scrum.
3. If you are doing IT work, or have a mature agile culture, or can't accept all of Scrum's changes, adopt Kanban.
4. If you need CMMi, adopt TSP.
5. If safety is critical, consider Crystal.
6. Buy Rally Software. 😊



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