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MARCH 5-9  
**2007**  
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# Agile Game Development

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# An introduction to applying agile methodology to game development

- History of agile at High Moon
- What is *agile*? Why use it?
- Overview of *Scrum*, one agile methodology
- Agile Planning
- The results of using agile at High Moon
- Q&A

This is about what we experienced, not the “Right Way” to make games.



# History of Agile at High Moon

- Used Scrum in last year of Darkwatch
  - Helped keep the project on track
- Adopted XP and agile planning practices on new projects over the last two years





# What is agile?

- It's a method for developing products using short iterations
  - Each iteration is like a short project in itself
  - Uses “inspect and adapt” practices to adjust the project plan.



# Why Adopt Agile?

## The Reasons/Goals:

- Reduce wasted effort/crunch
- To find the fun first

Other industries have used agile to develop better products faster. Can we?



# The Agile Manifesto (for GD)

People and communication

over

Process and Tools

Working game

over

Design documentation

Customer collaboration

over

Contract negotiation

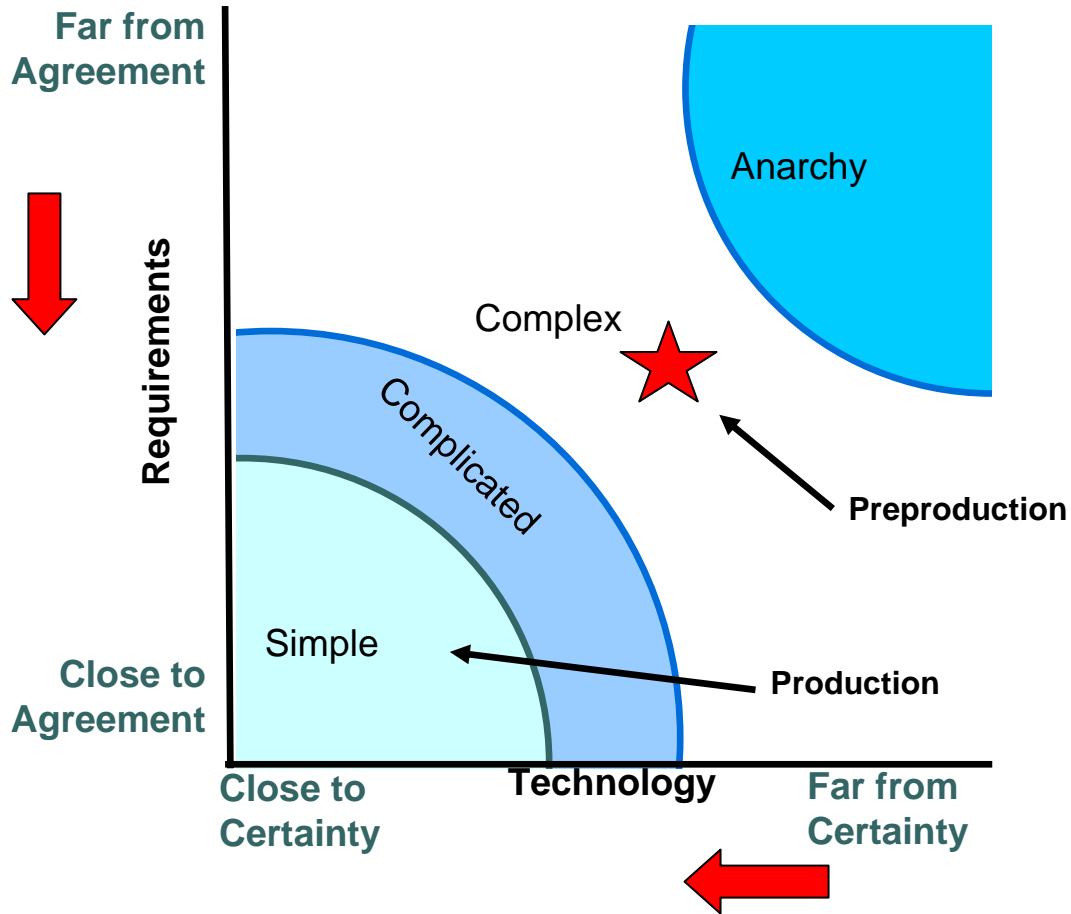
Responding to change

over

Following a plan



# Wasted Effort Can Come From “uncertainty” ...and it influences what methodology we use

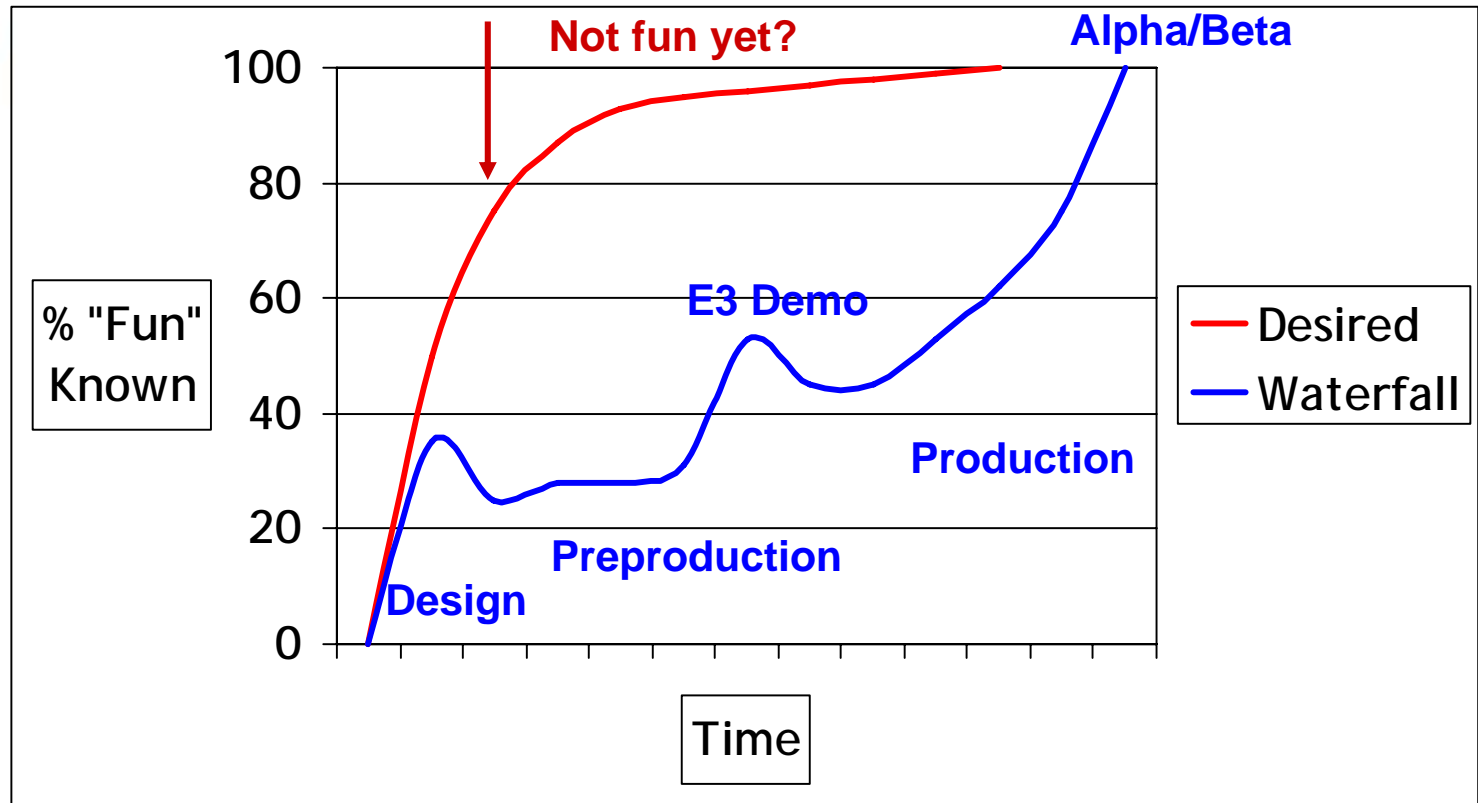


Source: *Strategic Management and Organizational az* by Ralph Stacey in *Agile Software Development with Scrum* by Ken Schwaber and Mike Beedle.





# Finding the Fun First



# What is Scrum?



# What is Scrum?

People and communication

Working game

Customer collaboration

Responding to change



# What is Scrum?

Iterative

Results oriented

Collaborative

Self disciplined

Commitment oriented

Not plan based

Not management based

About making things visible so you can apply common sense

# The Scrum Cast

Product Owner

Scrum Master

Anyone. Not a lead role



Director



Marketing



Publisher Producer  
Customers



Artist



Artist



Animator



QA



Designer

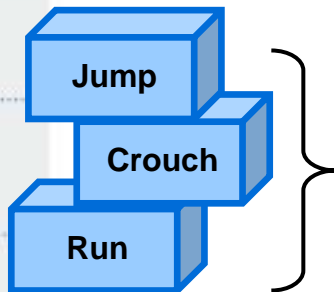


Programmer

The Team



# Product Backlog



Product Backlog as prioritized by Product Owner

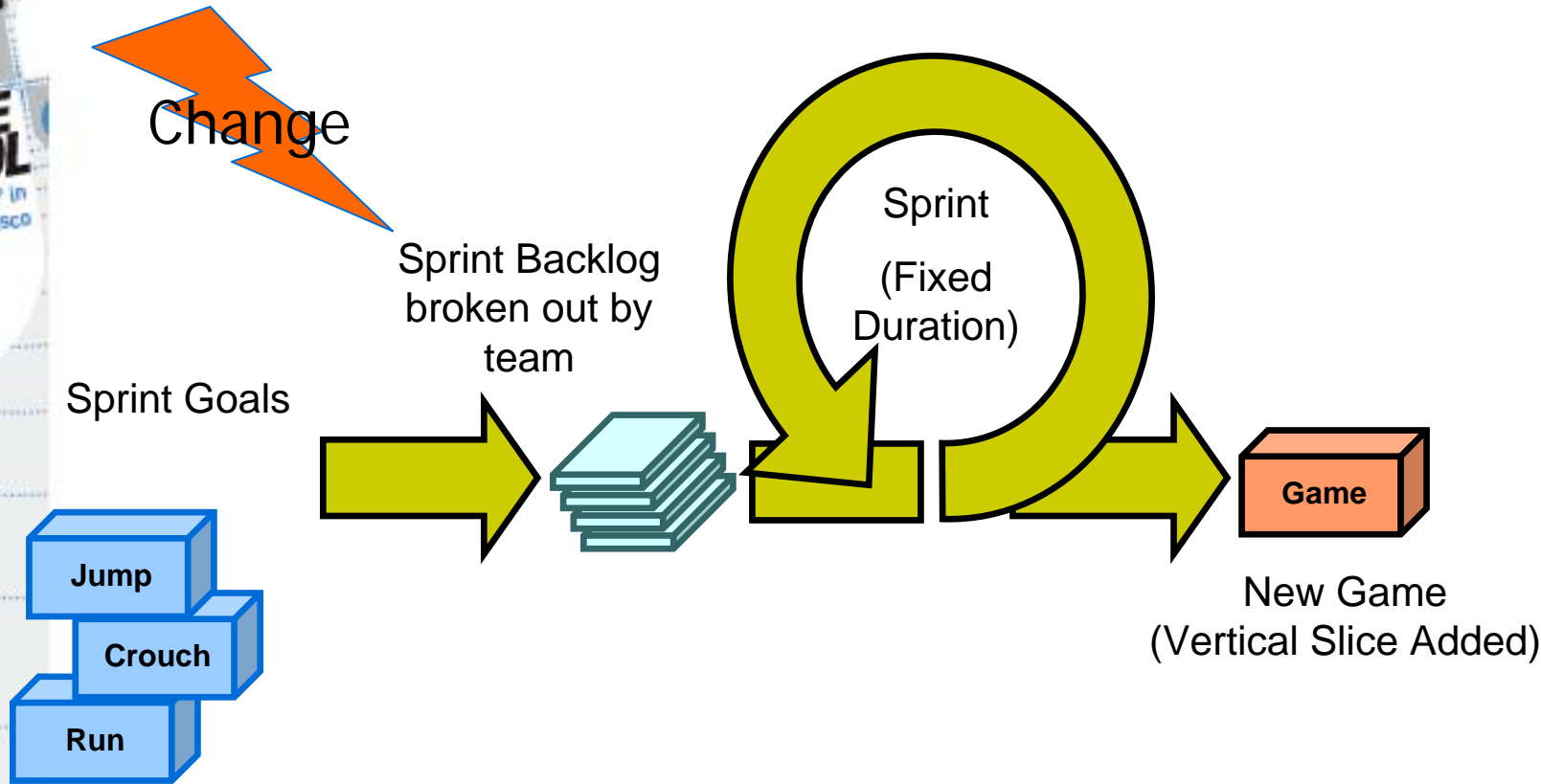
Defined as *User Stories* with conditions of satisfaction

Estimated with relative *User Story Points*

that help track progress

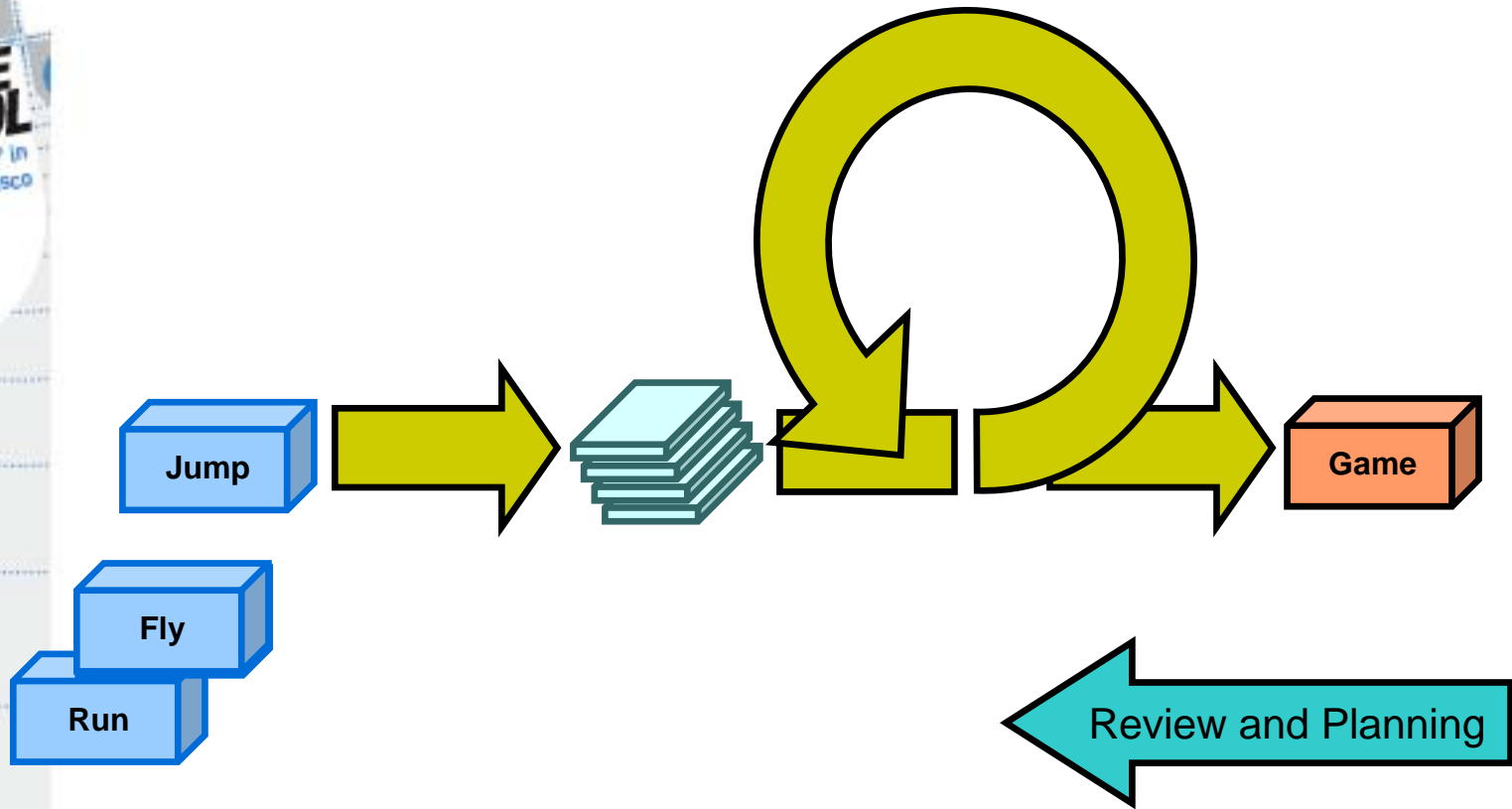


# Sprints (Iteration)





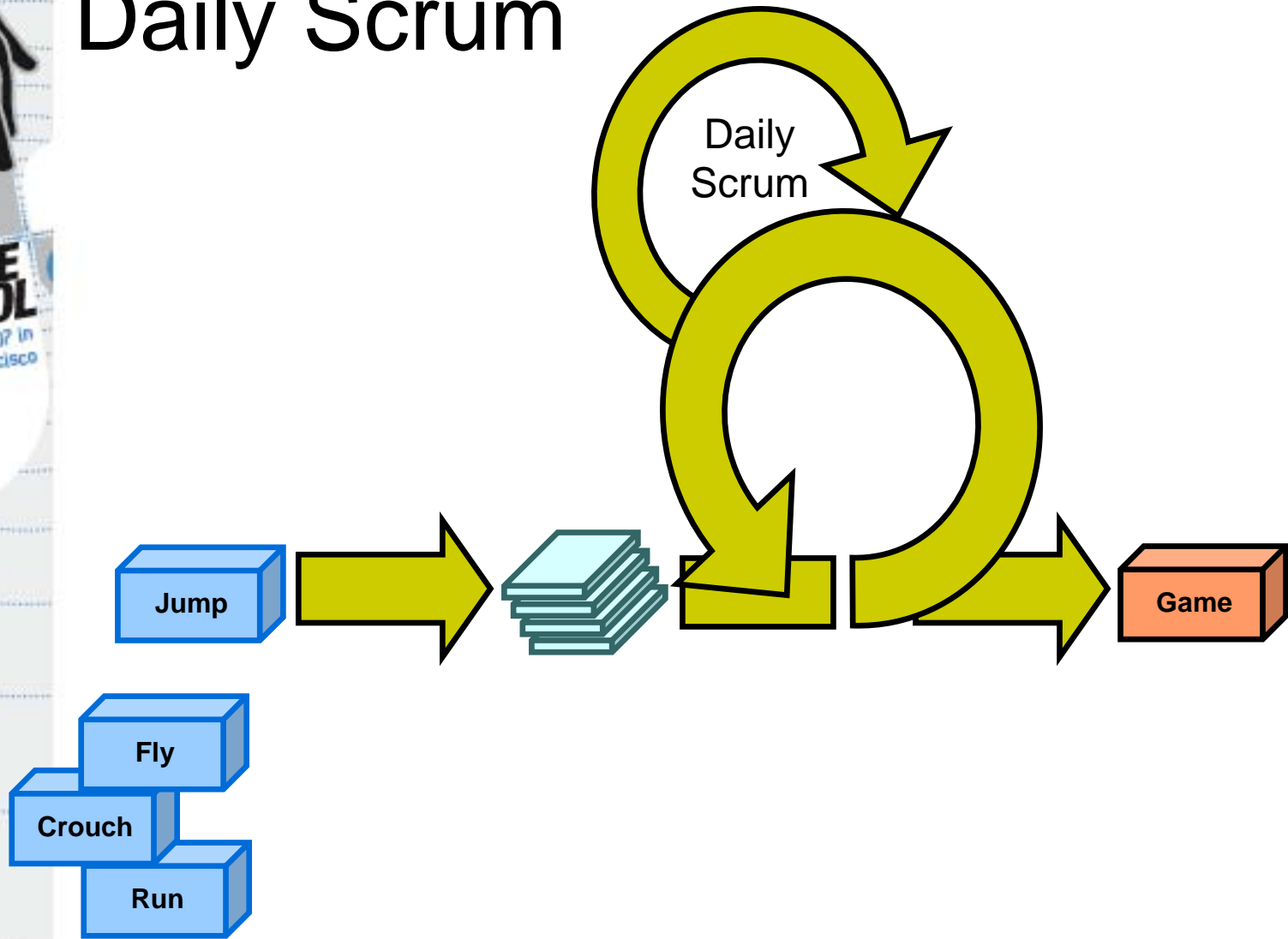
# Review and Planning





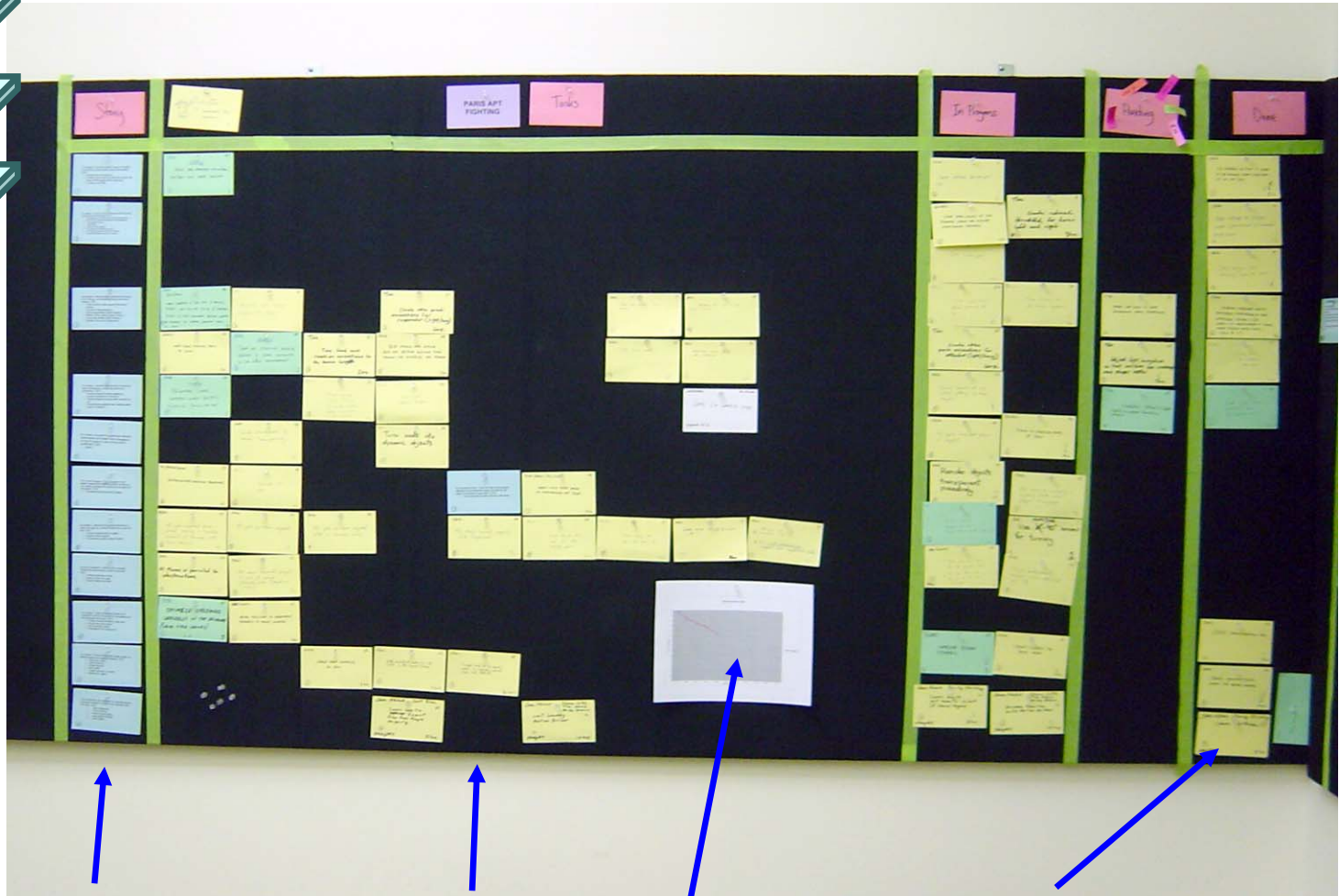


# Daily Scrum





# The War Room



User Stories

Tasks

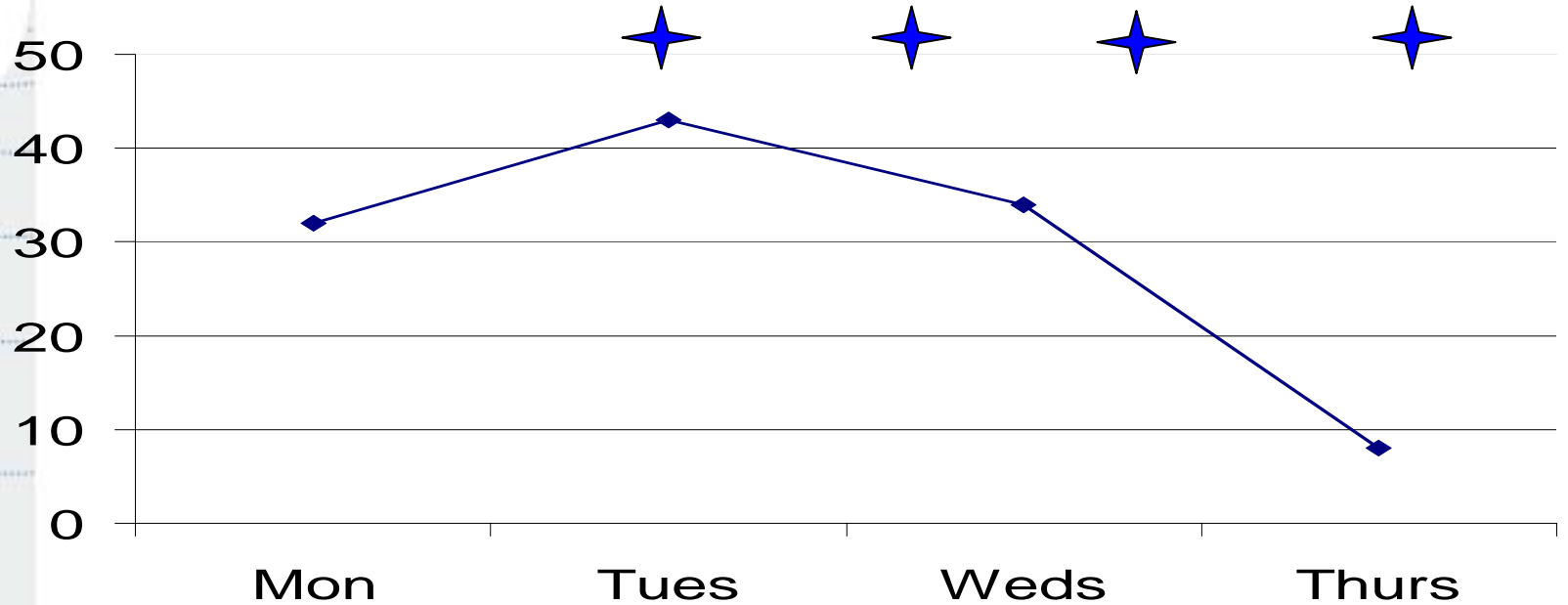
Completed Tasks

Burndown Chart

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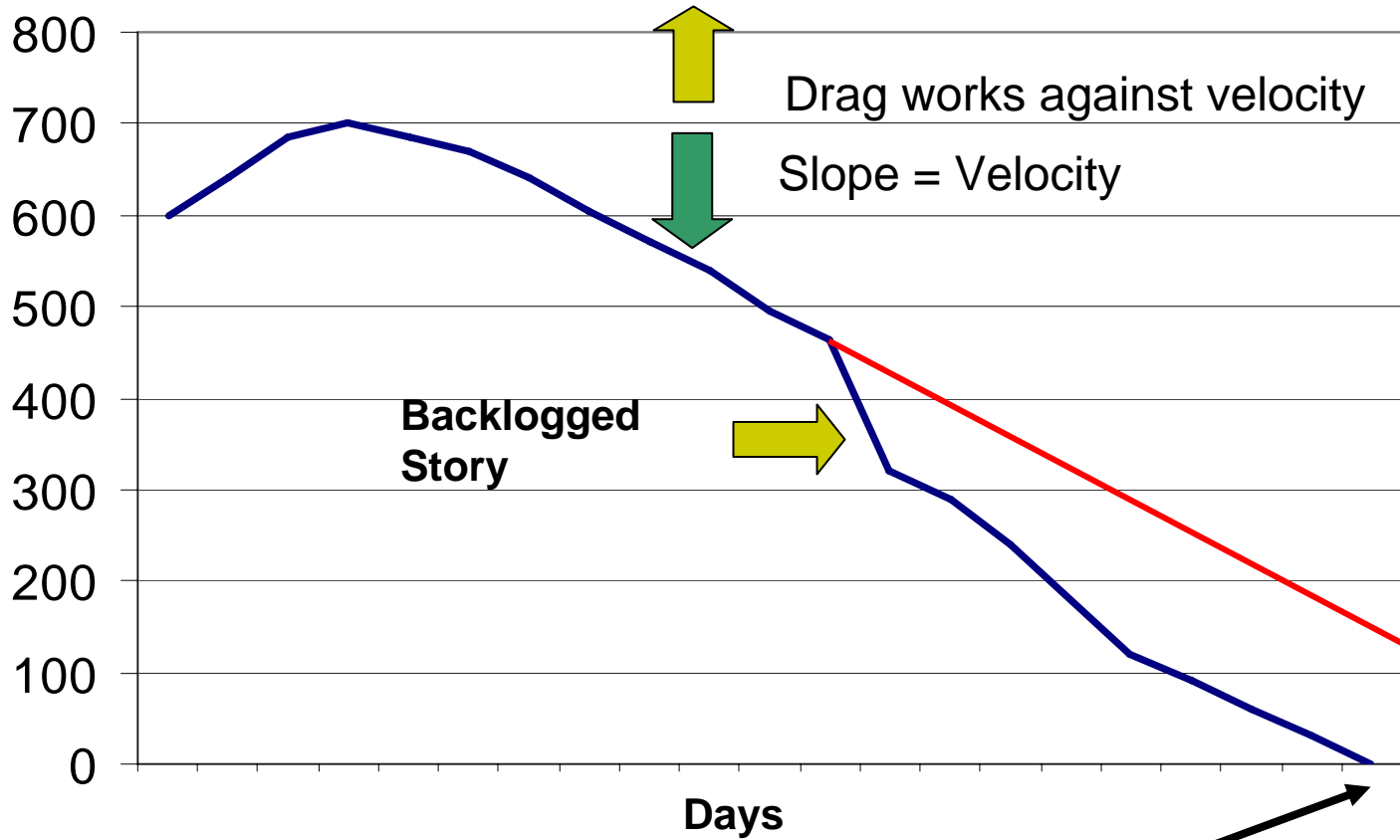
# Jump User Story

Task	Mon.	Tues.	Wed.	Thurs.
Jump Input Control	8	3	0	0
Jump Tuning	16	16	10	4
Jump Animation	8	16	16	4
New task		8	8	0





# Sprint Backlog Burndown Chart



Must hit zero hours by end

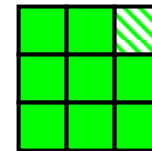
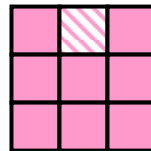
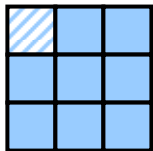


# Scaling Scrum - The Scrum of Scrums

Functional  
Leadership



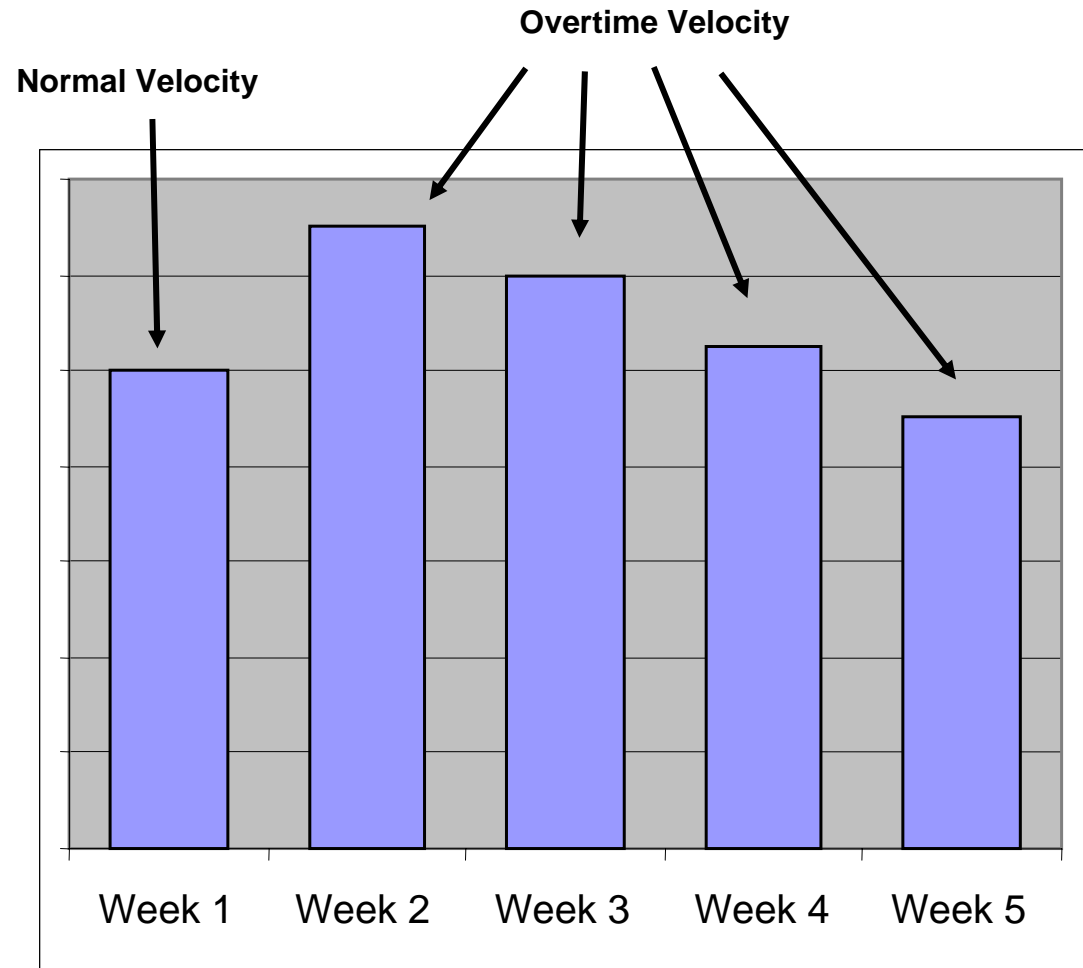
Support  
services



Teams



# Crunch



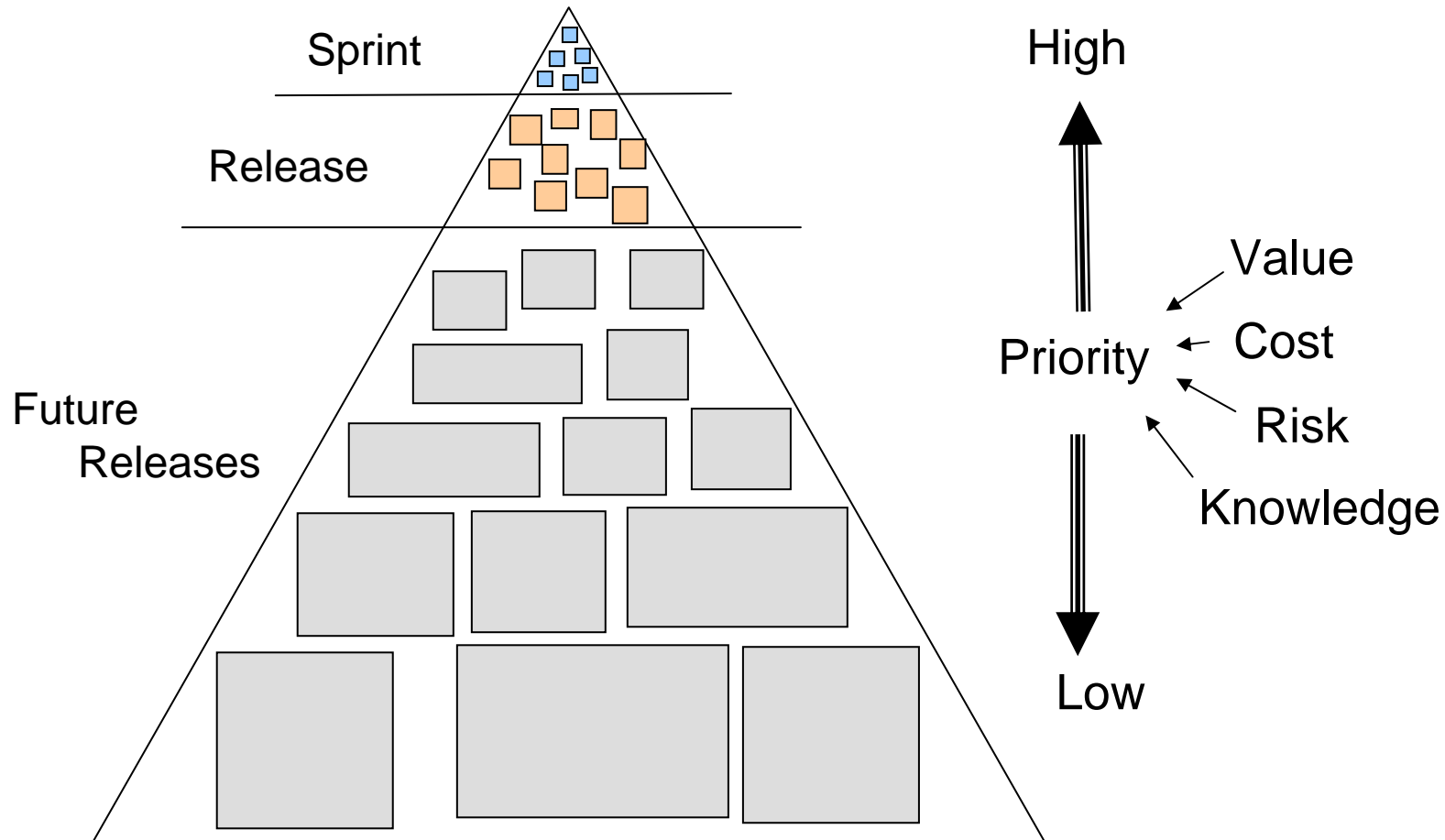


# Agile Game Development

- Starting agile.
- Benefits
- Issues
- Where to go for more info?



# The Product Backlog *Iceberg*



**Lower priority features might get dropped**





# Benefits

- Improved...
  - Productivity
    - Especially for leads
  - Reliability of build
  - Quality of game
  - Morale
    - Ownership
    - Team work
    - Communication
- Enables low-cost executive awareness
  - Which means you don't have to work hard to find out what's going on
- Makes us constantly see and think about what we are doing. Encourages common sense.



# Not there yet....

- Production is not agile
  - Minimum content required
- Large teams need more leadership
  - Self-organization breaks down
- Vertical slices are hard
  - Debt can sneak in
  - Releases can be mini-waterfalls
  - These cause crunch





# Where to go for more info?

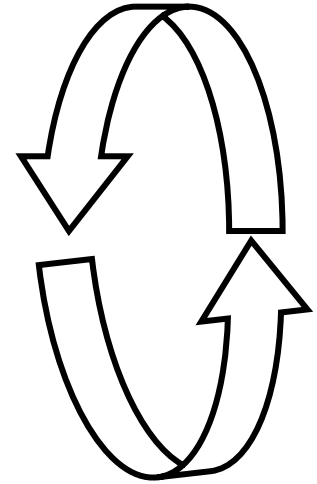
- [www.agilegamedevelopment.com](http://www.agilegamedevelopment.com)
  - Books
  - Mailing lists – For Game Developers to share info on adopting Agile
  - AGD Blog – Addressing challenges and news on adopting Agile to Game Development

## Questions?



# Retrospectives

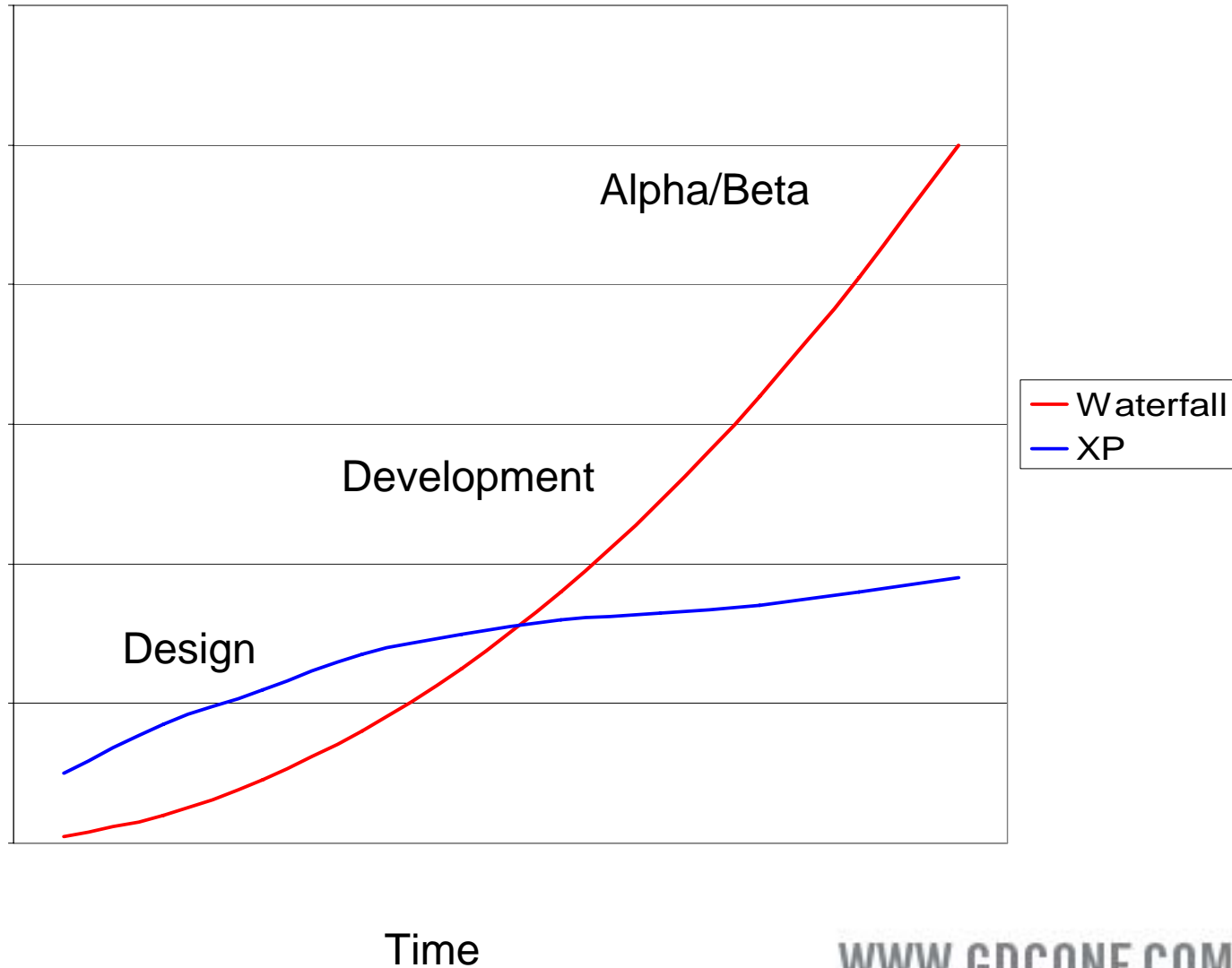
- Mini postmortems
  - Three questions
- Teams per sprint
- Project per release
- Company per quarter





# eXtreme Programming (XP)

Cost  
Of  
Change





# Release Burndown

