Iterative MMO Development at Scale

With Producers Amy Liu and Sonya Wolfram

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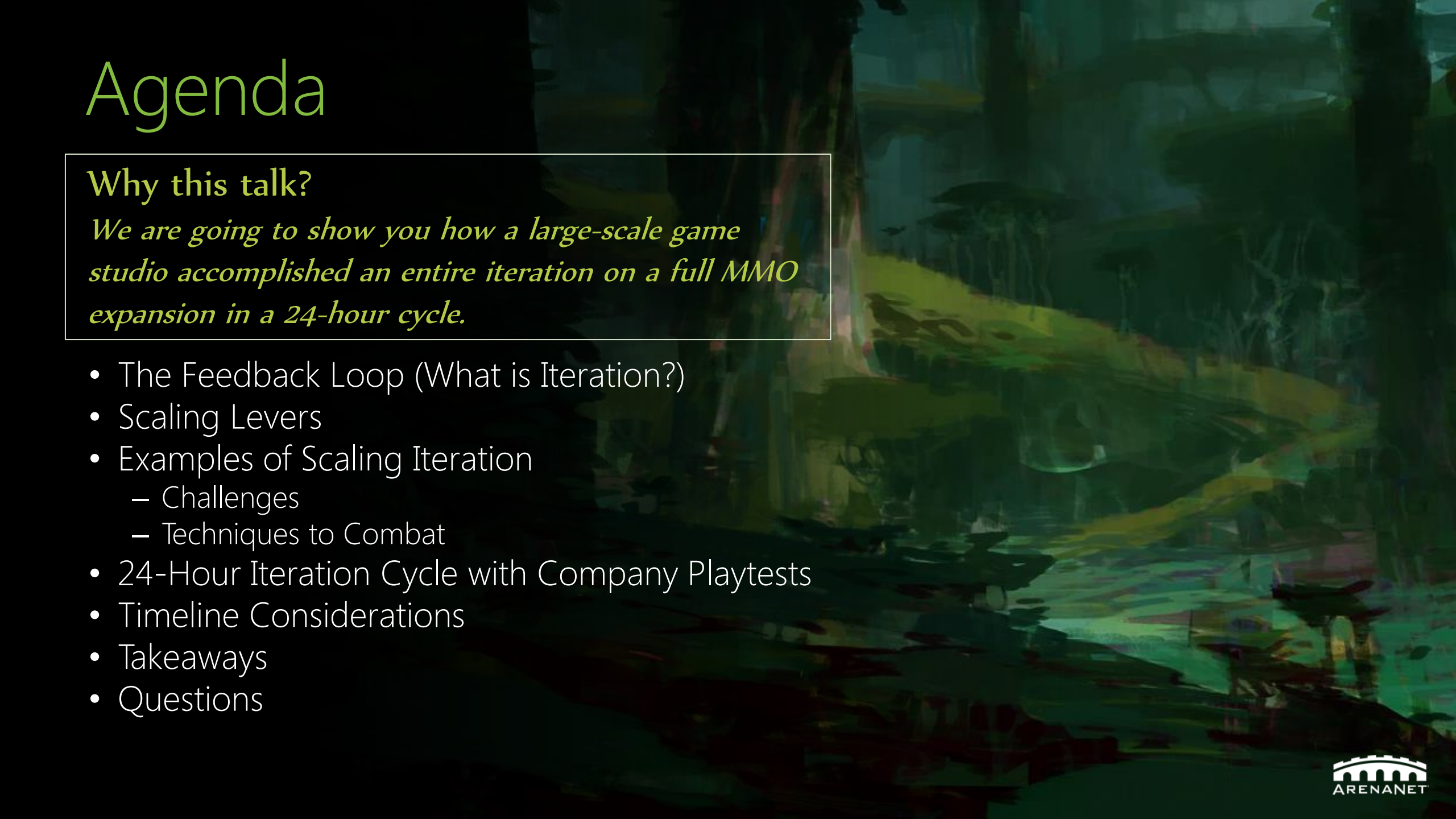
Agenda

Why this talk?

We are going to show you how a large-scale game studio accomplished an entire iteration on a full MMO expansion in a 24-hour cycle.

- The Feedback Loop (What is Iteration?)
- Scaling Levers
- Examples of Scaling Iteration
  - Challenges
  - Techniques to Combat
- 24-Hour Iteration Cycle with Company Playtests
- Timeline Considerations
- Takeaways
- Questions



Quick Stats: ArenaNet

GW2

#2 Ranked MMO by MMORPG.COM, 5 million copies of GW2 sold

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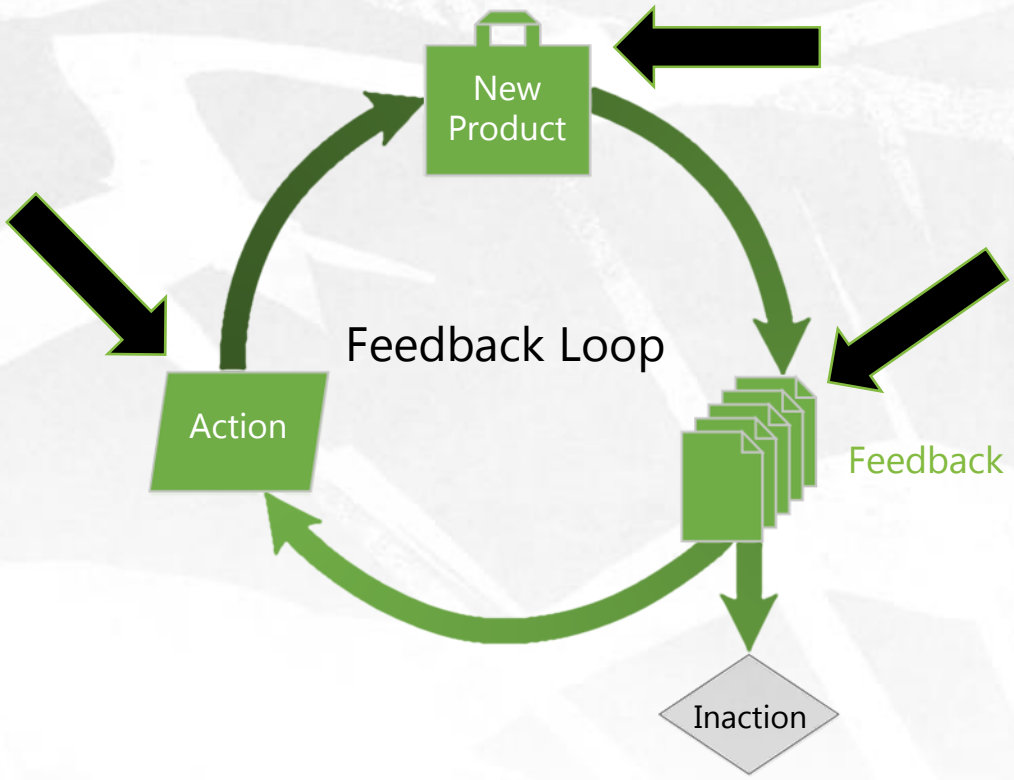
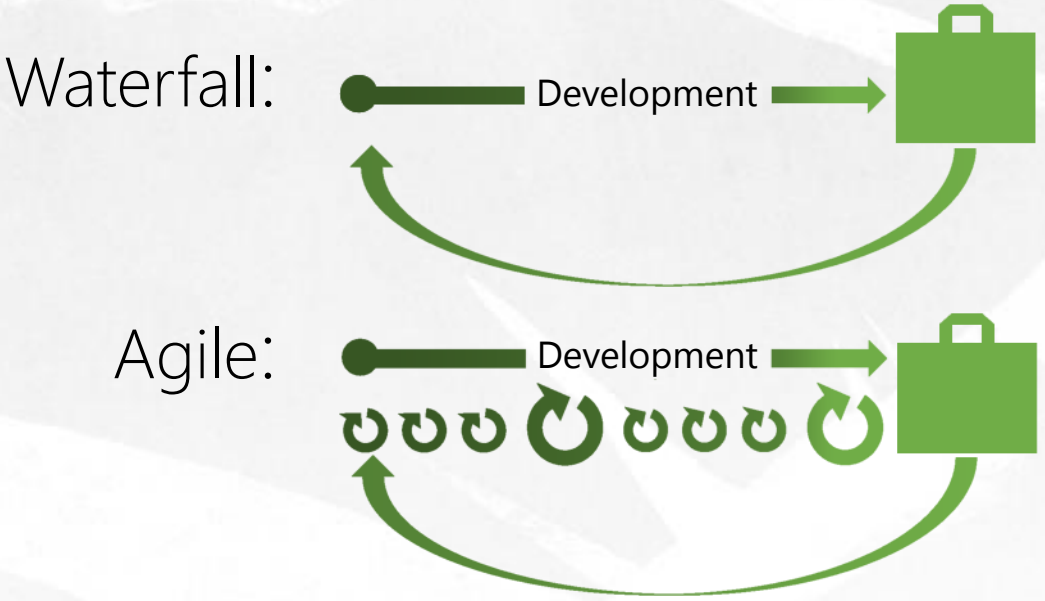
What is Iteration?





Iteration

Any change of content due to feedback, bugs, or its relationship with other content shipping with or after it.

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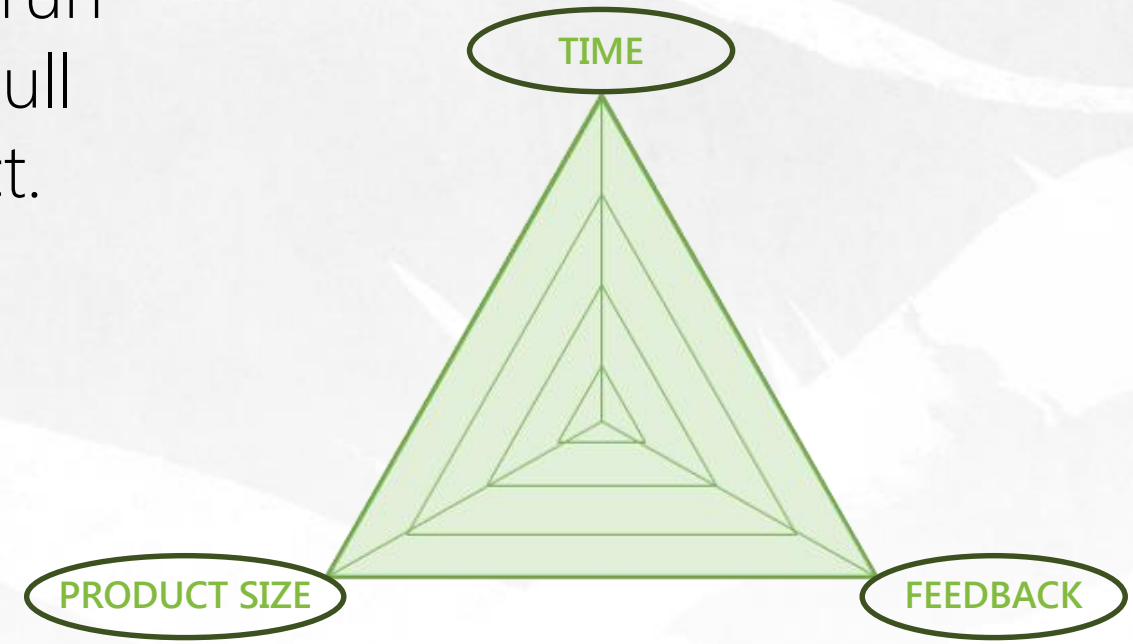
Levers

When Scaling this feedback loop, you run into 3 levers that you can potentially pull to maximize the value for your product.

- Product Size, Content Size, or Scope
- Feedback Sources
- Iteration Time or Cycle Length



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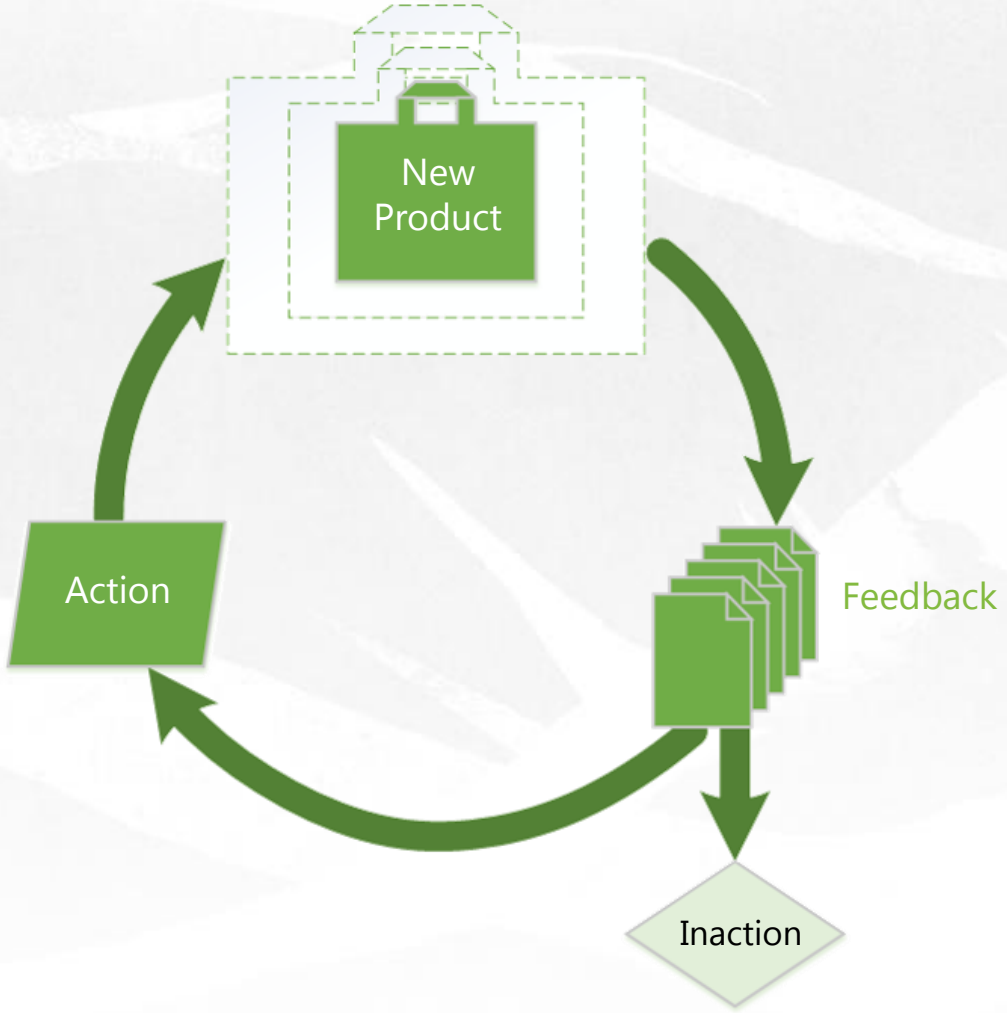
Lever: Product Size

Product Size: The amount of content you are putting into your next version of the product

Examples of Scaling:

- One code change
- Small feature
- Gameplay event
- Expansion
- Franchise



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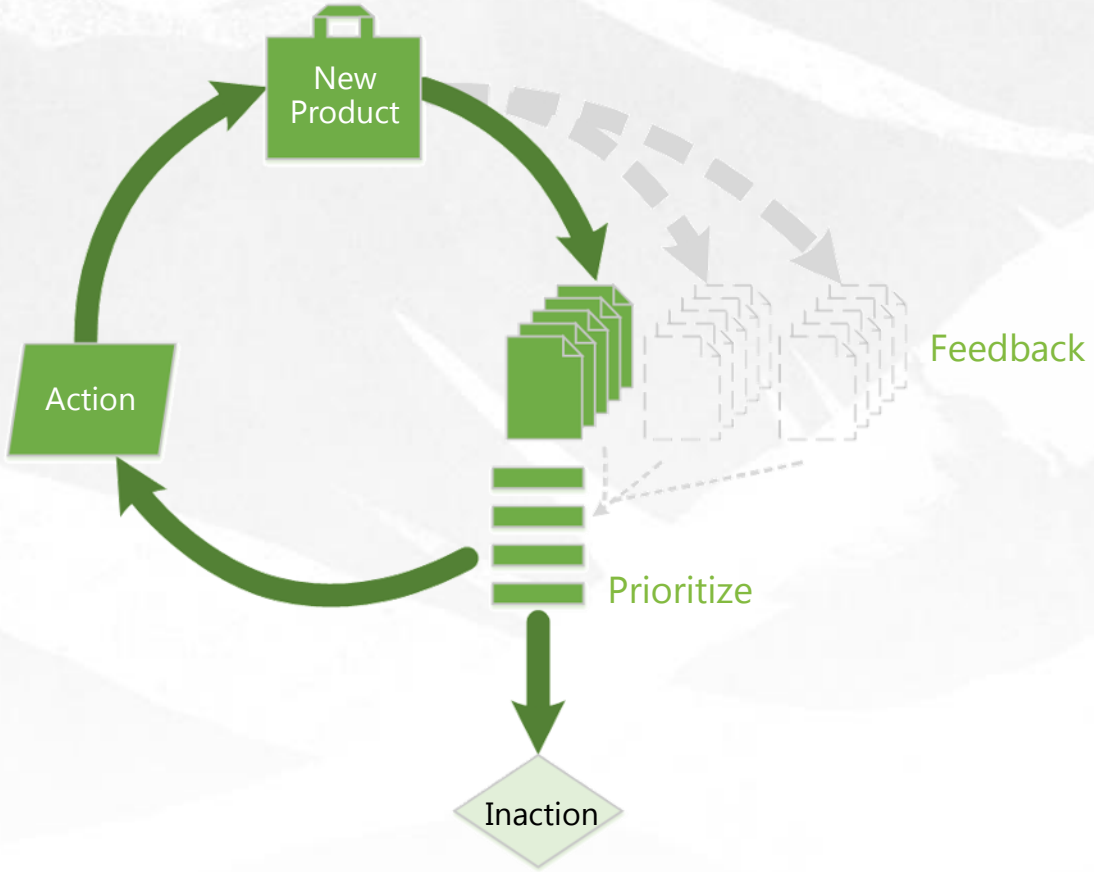
Lever: Feedback Sources

Feedback Sources: The diversity of feedback sources you are getting, or the number of people giving feedback

Examples of Scaling:

- Developer is only source (self)
- Team, Developer
- Stakeholders, Team, Developer
- Usability Testers, Stakeholders, Team, Developer
- Players, Usability Testers, Stakeholders, Team, Developer



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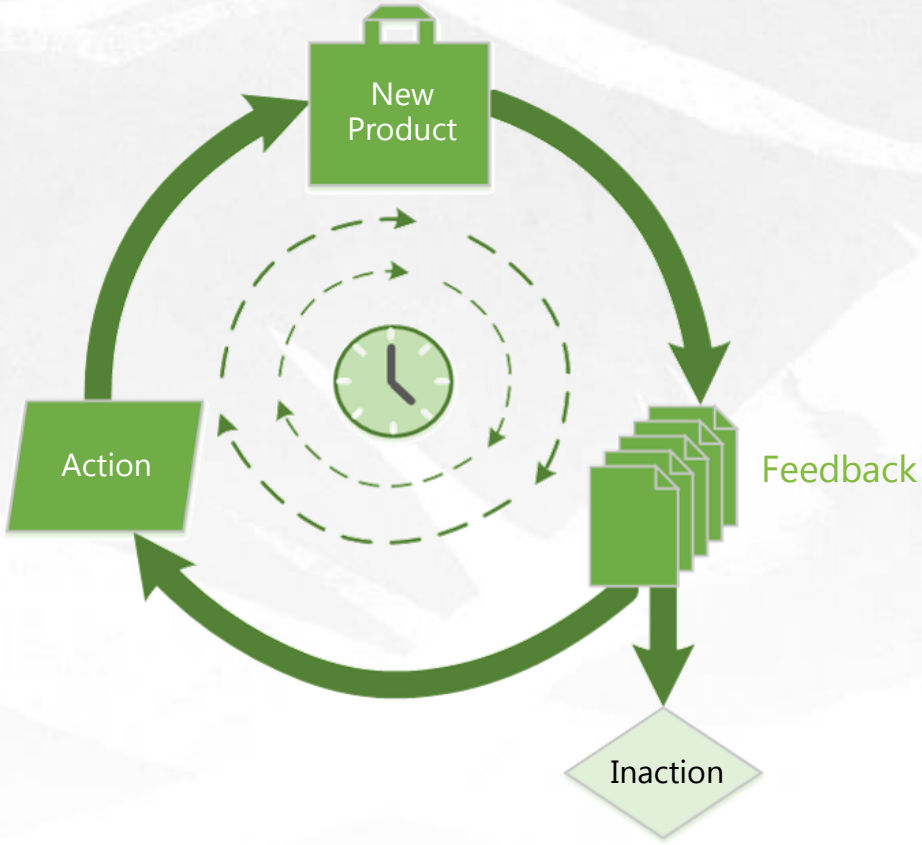
Levers: Cycle Length

Cycle Length or Iteration Time: The amount of time it takes to get from one version to the next.

As a result of pulling the other levers, the Cycle Length will naturally go up.



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EXAMPLE 1:

Individual Playtest

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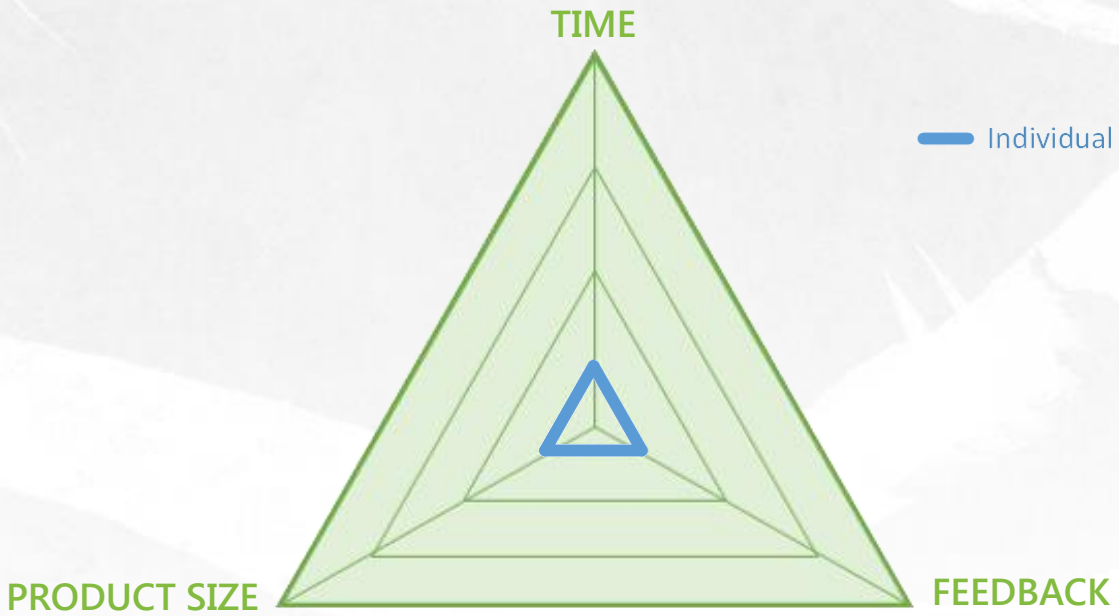
Example 1: Individual Playtests

- "Individual" or "Informal" Iteration
- One person implements
- Very little process

Levers:
Product Size: Small
Feedback Sources: Small
Time: Small



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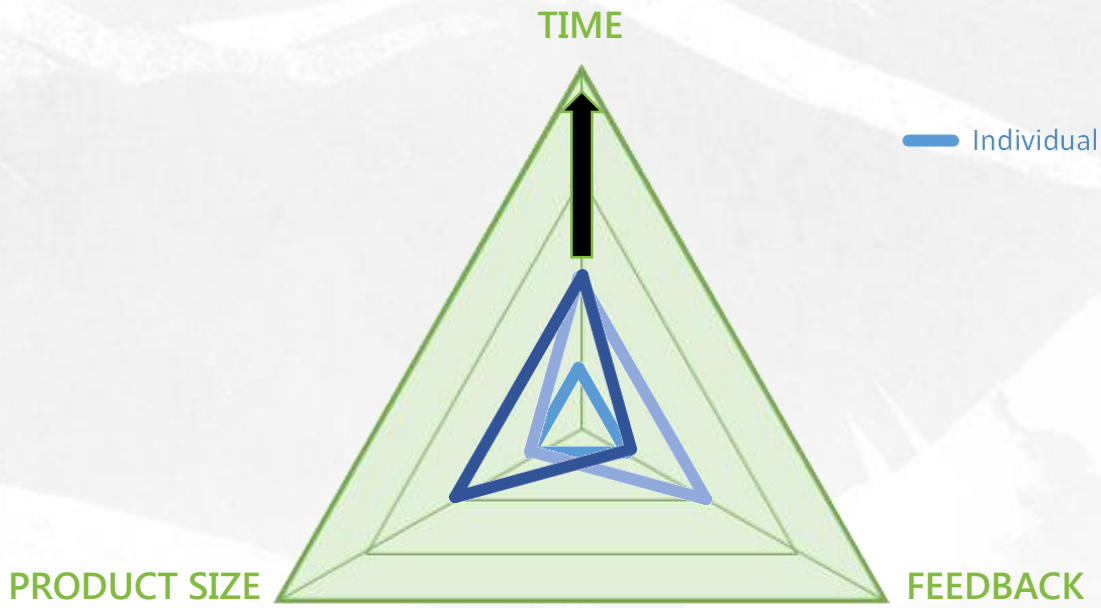
Individual Playtests

- **Challenge #1:** Bottleneck of fixing feedback
- **Techniques:**
  - Dev can see work before builds
  - Product Owner prioritizing the most important items
  - Email/Lists for Feedback, Task Tracking



Note

When increasing size and feedback levels, the amount of time it takes to iterate will increase.

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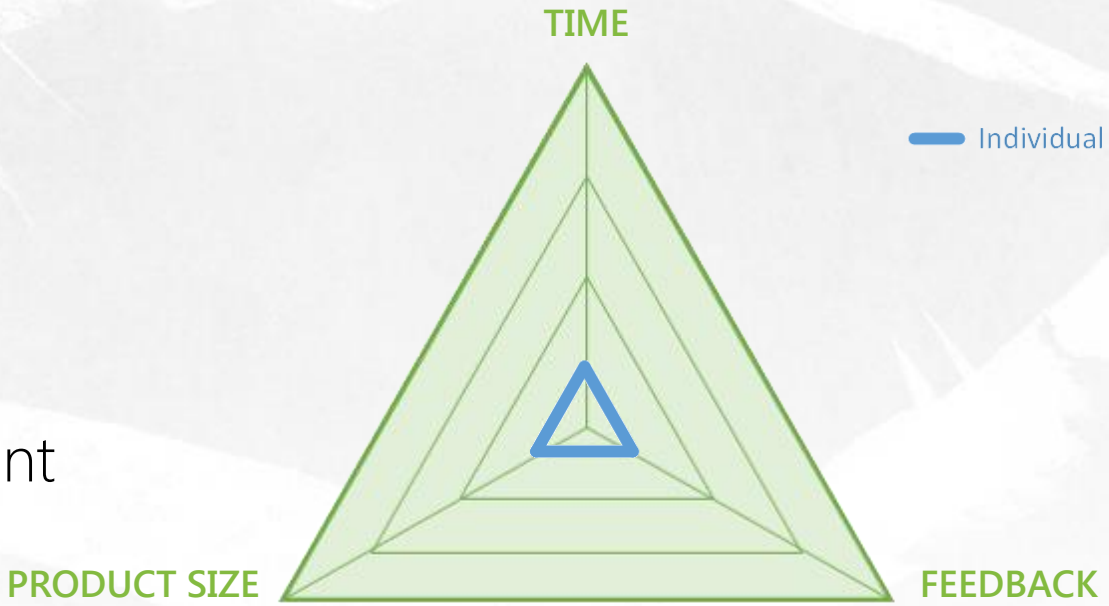
Individual Playtests

- Challenge #2: Tunnel Vision
- Techniques:
  - Have a Product Owner
  - Assess backlog often
  - Encourage dev to play other content
  - Might be time for more people



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EXAMPLE 2:

Team Playtest

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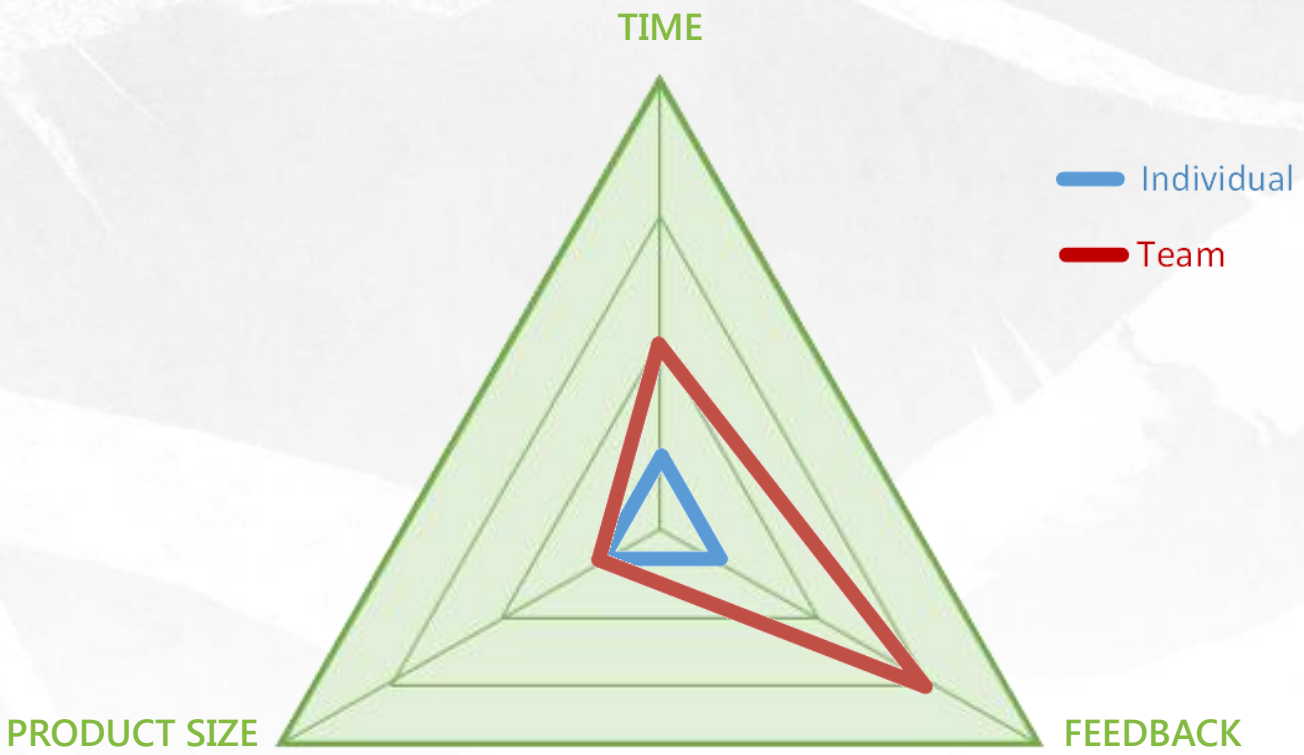
Example 2: Team Playtests

- Playtests involve smaller versions of content
- Frequently shown to stakeholders
- Lots of feedback encouraged

Levers:
Product Size: Small
Feedback Sources: Large
Time: Medium



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Example 2: Team Playtests

- Challenge #1: Feedback pacing or timing doesn't support development
- Techniques:
  - Managing velocity & progress
  - Constant communication about the state of the product
  - Focused Demos

Focused Demos

- Challenge #1: Feedback pacing or timing doesn't support development
- Technique: Focused Demos
  - 2x a week max; every 2 weeks minimum
  - Specific Agenda
    - Which features are polished?
    - Which features need feedback?
    - Are we looking for bugs?
    - What are the known issues?
  - Cancel or call short if agenda is a bust
  - When in doubt… get some eyes on it!
  - Immediate "Action Items" required & processed

Benefits

- Reveals dependencies and connections
- Scoping and Priorities become clear
- Inspiration to other developers
- Clear goals for the next demo

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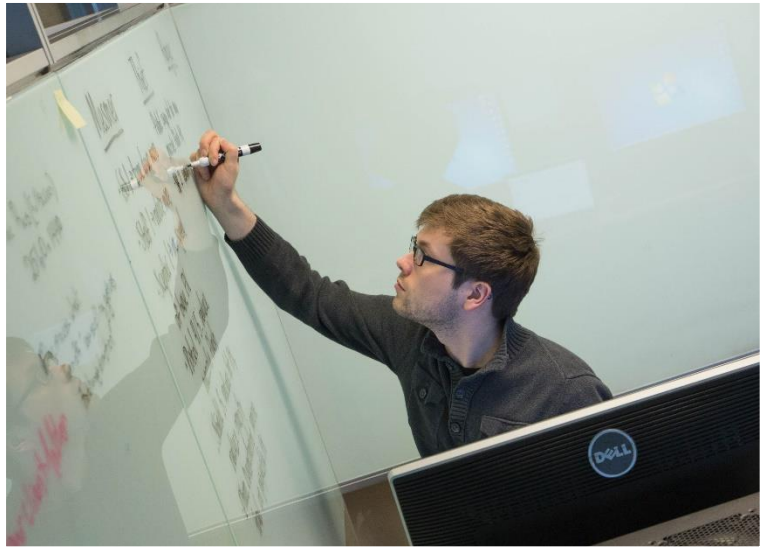
Focused Demos

Scaling for the studio

- Ensure stakeholder availability is reasonable
- Scale frequency up and down per team
- Give devs an informal option



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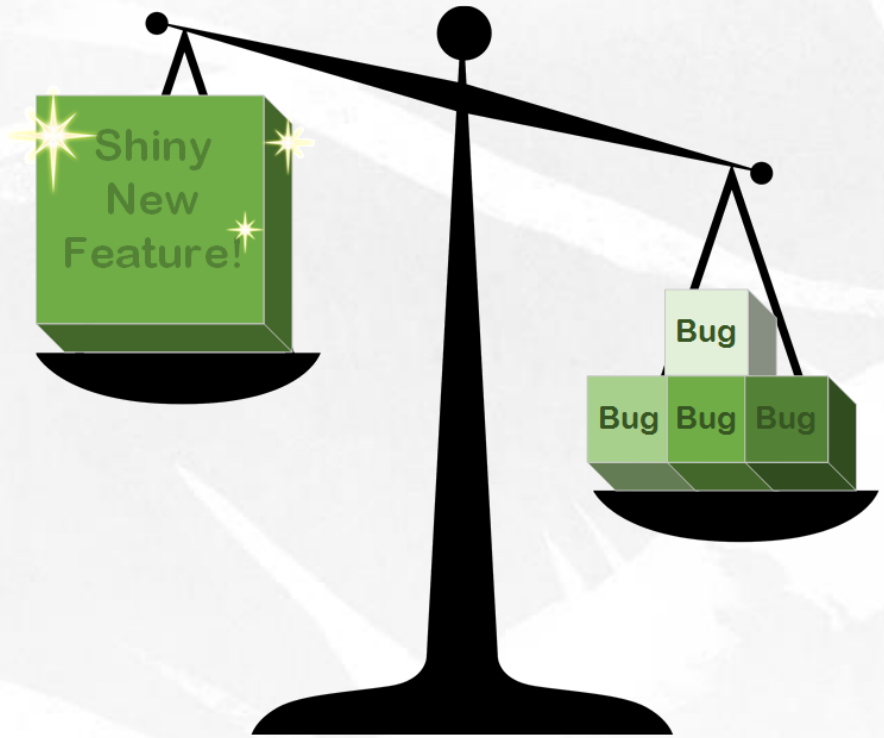
Example 2: Team Playtests

- Challenge #2: Scope can drastically increase with more feedback
- Techniques:
  - Stakeholders present and always negotiating
  - Shared Backlogs

Shared Backlogs

- Challenge #2: Scope can drastically increase with more feedback
- Technique: Shared Backlogs
  - Feedback and bugs are in the same backlog
  - All stakeholders meet frequently to see if dependencies are affected
  - Negotiation & trade-off discussions are encouraged



Benefits

- Quality doesn't get overshadowed by new features
- Honest conversations can happen when you see everything holistically
- Stakeholders are better able to keep scope in check

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Example 2: Team Playtests

- Challenge #3: Defining the polish
- Technique: Review Gates
  - Clearly defined criteria – requires approval
  - Prototype (Optional)
  - First Playable
  - Final Review
  - "Code & Content Complete"
    - "The value of shipping now outweighs the value of polishing it further."

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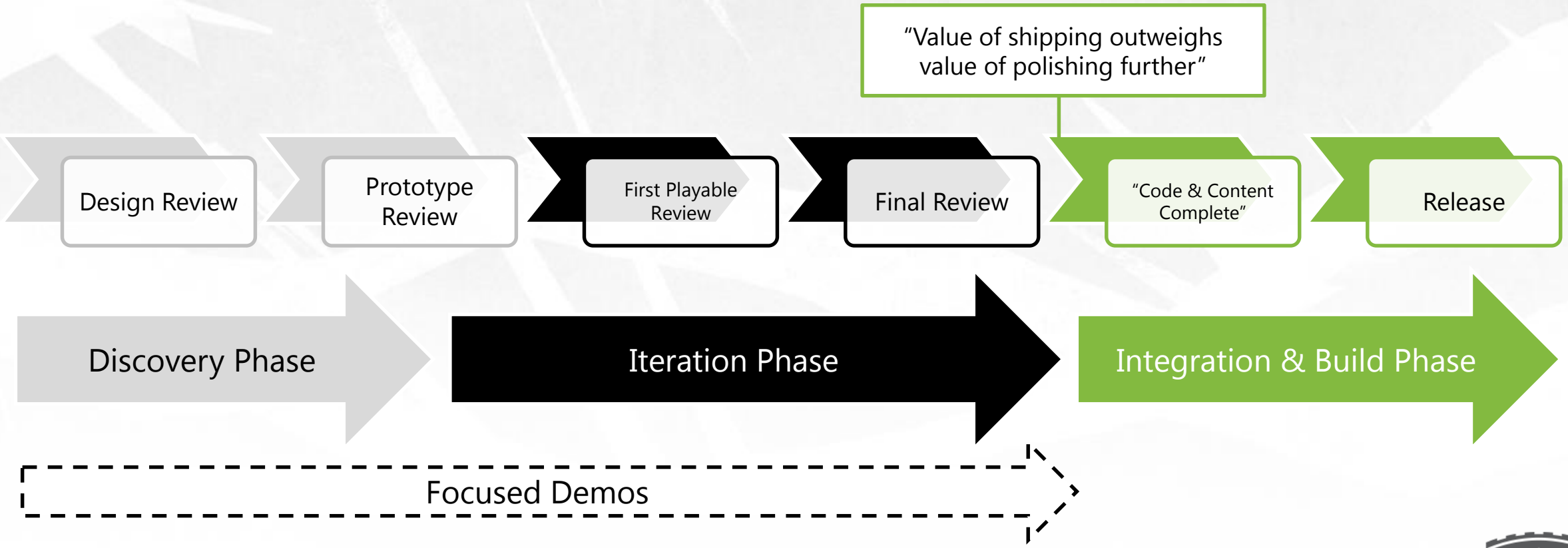
Review Gates

Dev Quote

"The power of review gates is not to add work,
but to subtract it to allow you to focus on WHAT IS MOST IMPORTANT."
–Gavian Whishaw, ArenaNet Director of Production



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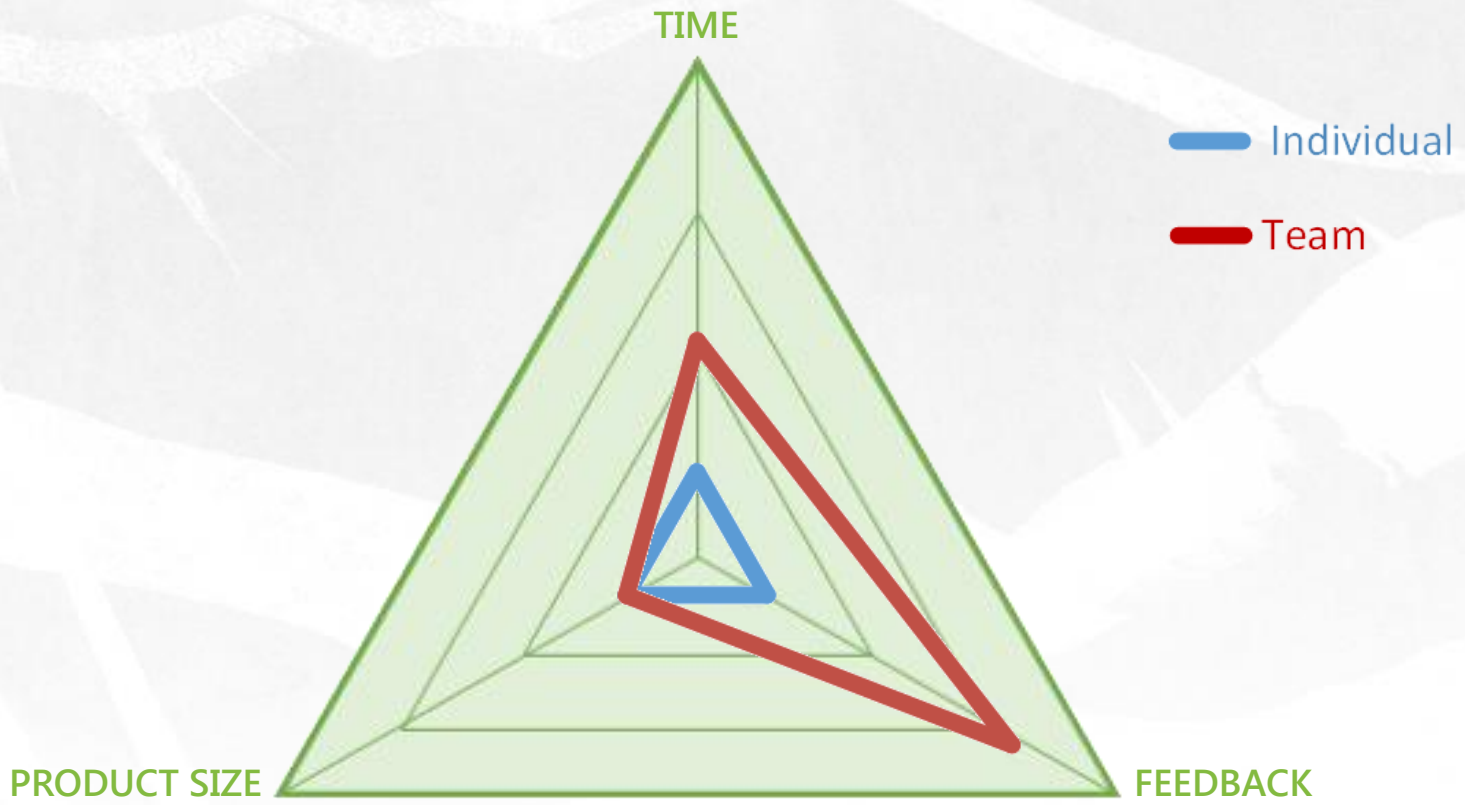
Recap

Individual Levers:
Product Size: Small
Feedback Sources: Small
Time: Small

Team Levers:
Product Size: Small
Feedback Sources: Large
Time: Medium



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EXAMPLE 3:

Public Playtest

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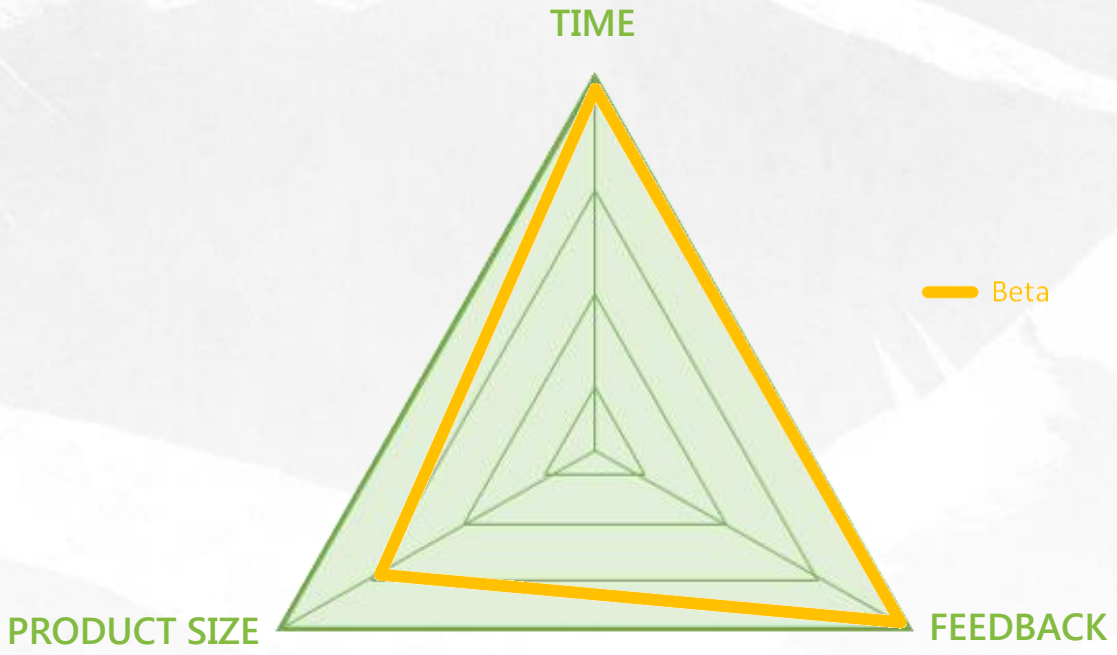
Example 3: Public Playtests

Large-scale testing of a vertical slice of the game with external players.

Levers:
Time: Large
Product Size: Medium to Large
Feedback Sources: Large



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Public Playtests

WvW Playtests

PvP Playtests

Beta Weekend Events

NOW LIVE

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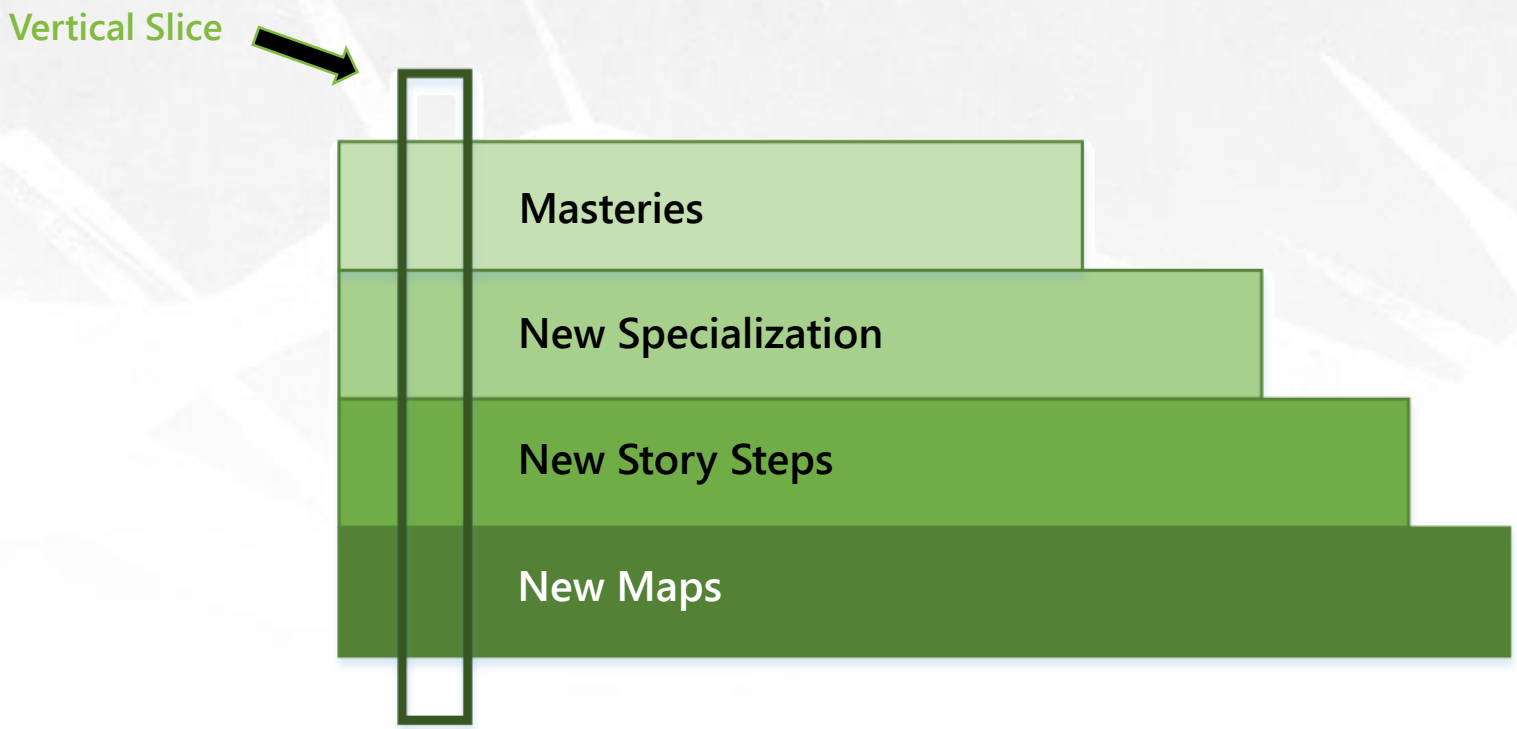
Public Playtest Challenges

- Challenge #1: Players expect a highly polished beta.
- Technique: Control quality by limiting what was in the beta build to a vertical slice.



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Public Playtest Challenges

- Challenge #2: Betas on the Live servers – extra time, effort, and risk
  - Don't break the Live game
  - Protect ourselves from spoilers
  - Hard to change the beta plan
- Technique: Plan your betas during the prototype phase

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EXAMPLE 4:

Company Playtest

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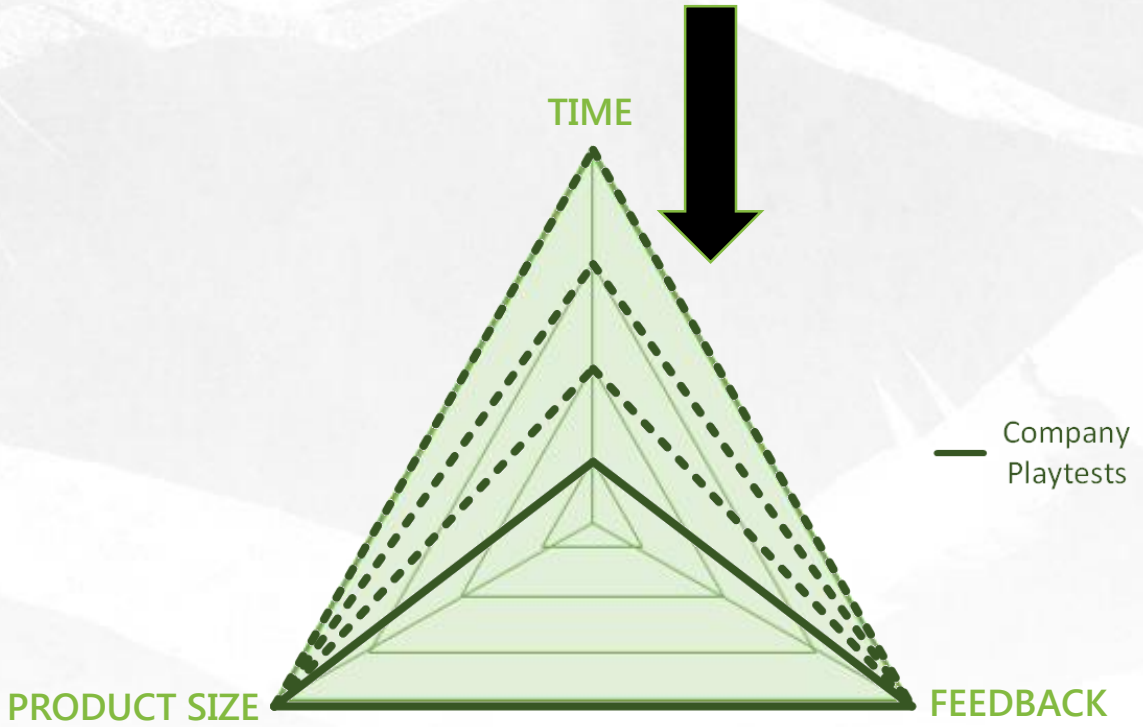
Example 4: Company Playtests

Large-scale testing of large portion of the game with the entire company staff.

Levers:
Time: Large → Small
Product Size: Large
Feedback Sources: Large



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Company Playtests

Goals:

- Studio plays the game as much as possible.
- Get great feedback from Developers
- Stress and performance testing
- Focus on specific features for added QA

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Company Playtests: Groups

Casual

Story

PvP

WvW

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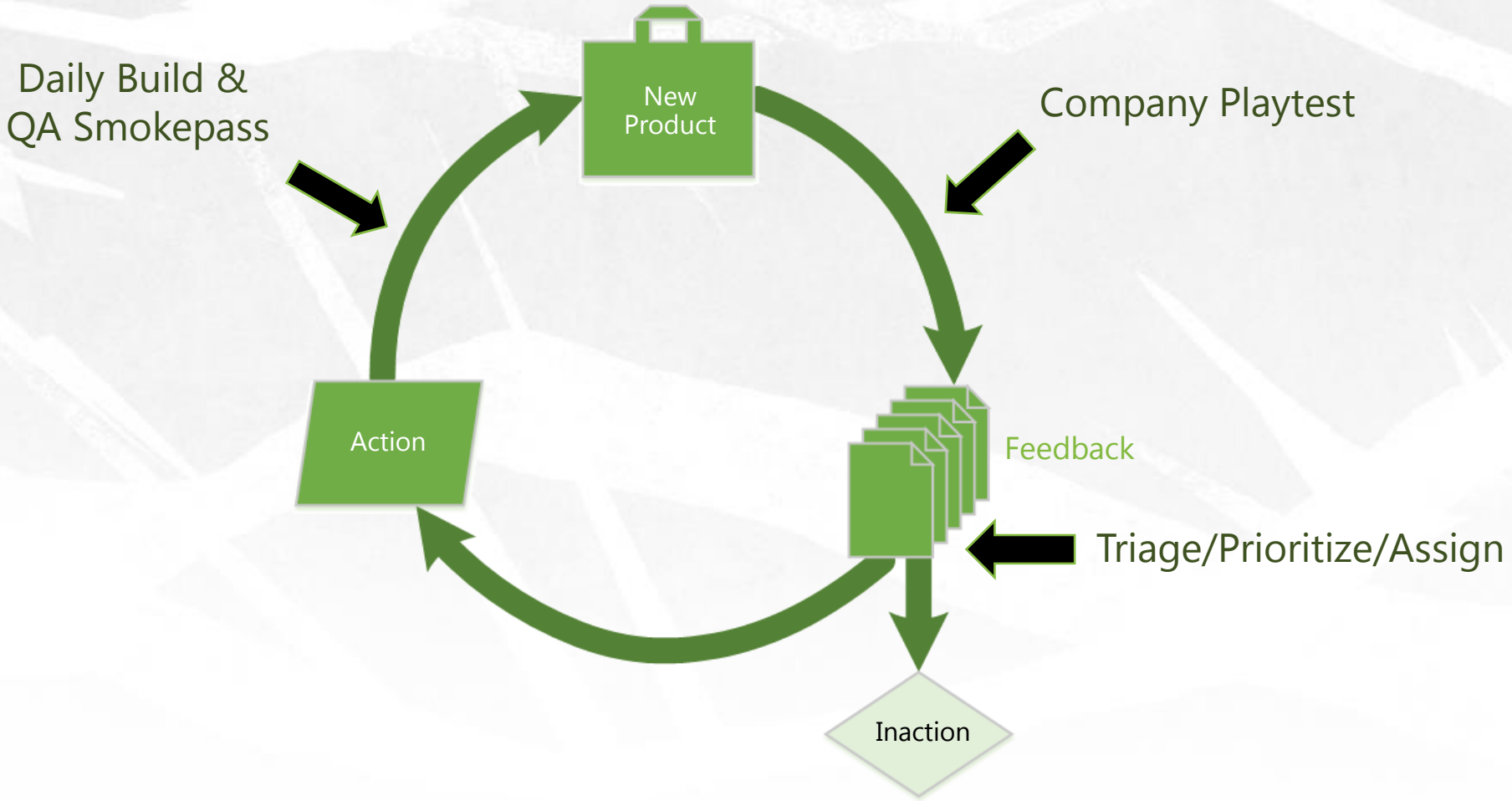
Company Playtests: Daily Cycle



Company Playtests

- Challenge #1: Developer expectations from internal playtests
  - Content owners did not find initial feedback useful
  - Testers didn't see enough progress between iterations
- Technique: Clearly communicate the content's status and action items from the playtest

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Company Playtests

- Challenge #2: Using company time efficiently
- Techniques: Highly coordinated playtests

Playtesting Schedule	Began 6 months before launch. Increased to 3 hours every day with the entire studio.

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Company Playtests

	9/21	9/22	9/23	9/24	9/25
	M	**T**	**W**	**T**	**F**
Content (Producers/POs)	10-1:00PM Core Natural Progression (Fleet): Expansion Test Raids + Adventures: Expansion 11-11:30AM Sky Bosses Raids + Adventures: Expansion Designer 1	10-1PM Roots Expansion Test (All) Designer 2	10-1:00PM Army Final Review Expansion (All) Designer 2	9:30-11:30AM Gold City Defense Expansion Test (All) Designer 3 + 11:30-1:00PM Core Natural Progression (Story): Expansion Test Raids + Adventures: Expansion	10-1:00PM Core Natural Progression (Roots): Expansion Test Raids + Adventures: Expansion 11-11:30AM Sky Bosses Raids + Adventures: Expansion Designer 2
Main Usability lab	Adventures			Adventures	Adventures
Usability lab 3	Raids			Raids	Raids
Backup	Core	Core	Core	Core	Core

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Company Playtests

- Challenge #3: Skewed feedback through use of dev commands
- Technique: Know limitations of internal testing
  - Earning vs. Granting rewards
  - Learning vs. Cheating through natural progression
  - Experiencing vs. Skipping through content

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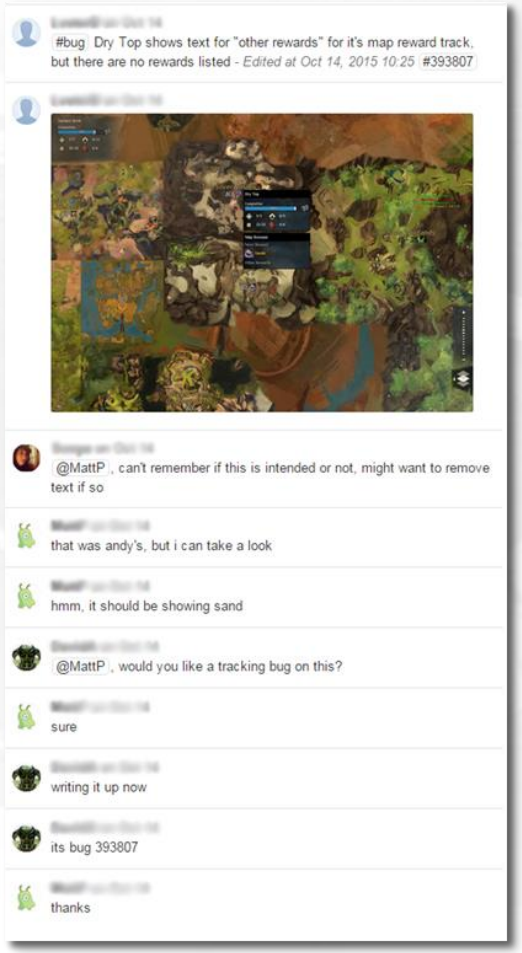
Company Playtests

- Challenge #4: Making bugs and feedback useful
- Technique: Real-time chat system
  - Dedicate flows for each playtest
  - Tag relevant developers
  - Tag bugs as they come in

Dev A: Hey @DevB, I found a bug on your stuff. #Bug
Dev B: Eww…that's not good.
QA: This is bug #45234



Playtest tracking

2,560 feedback items were actioned through company playtesting

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Timing Considerations

Questions to ask:

- Should you scale up or down your iteration types during different moments in development?
- How can you limit dependencies on other teams?
- What is your post-launch plan?

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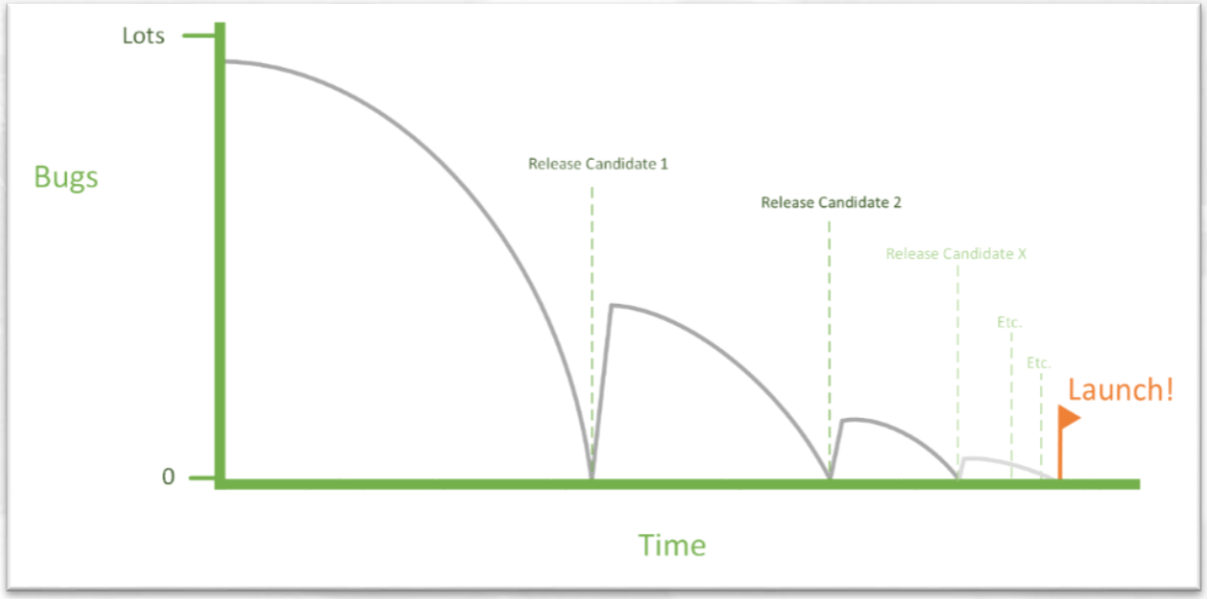
General Iteration Concerns

- Challenge #1 Iterating past our deadlines
- Future Technique: Limit inter-team dependencies to get a holistic view of the product.

General Iteration Concerns

- Challenge #2 : Knowing when to stop working.
- Technique: Ramp down development using release candidates



Dev Quote

"Our game would be so stable if we just stopped touching it."
~Susan Thayer, Server Lead

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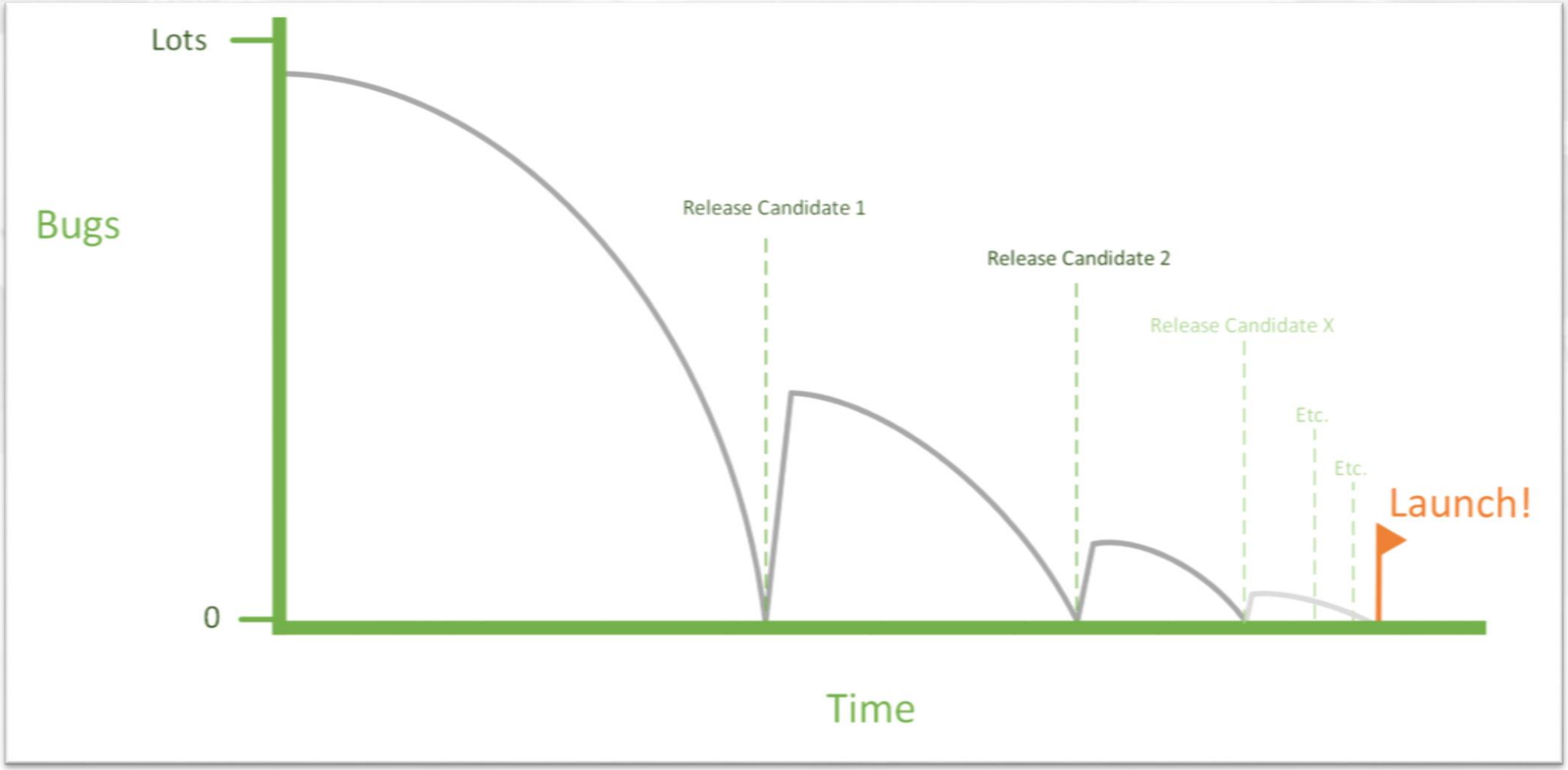
Release Candidates



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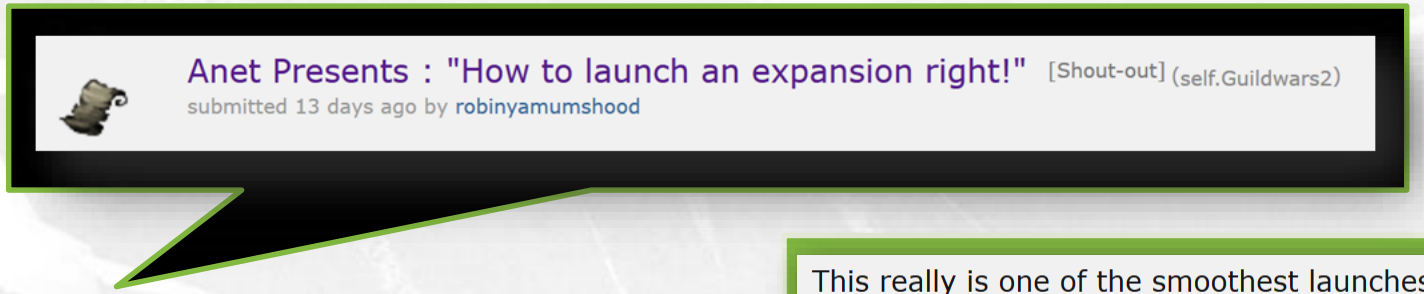
Launch



This really is one of the smoothest launches I have ever heard of for an MMO/expansion.

ANet, you've really outdone yourselves on the technical side. Incredible job!

the game's subReddit in order to iterate on the launch build of *Heart of Thorns*. I believe that the speed of iteration and corrective patching is in no small part facilitated by how smooth the expansion launch was: Relatively few major bugs marred the launch, allowing the team to quickly get to our concerns and make amends.

Heart of Thorns Recognition:

- MMORPG : "Best MMO Expansion for 2015"
- TenTonHammer: "MMO of the Year for 2015"
- MassivelyOP: "Best MMO Update or Expansion of 2015"
- MMOReporter: "Game of the Year for 2015"

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Takeaways from HoT Iteration

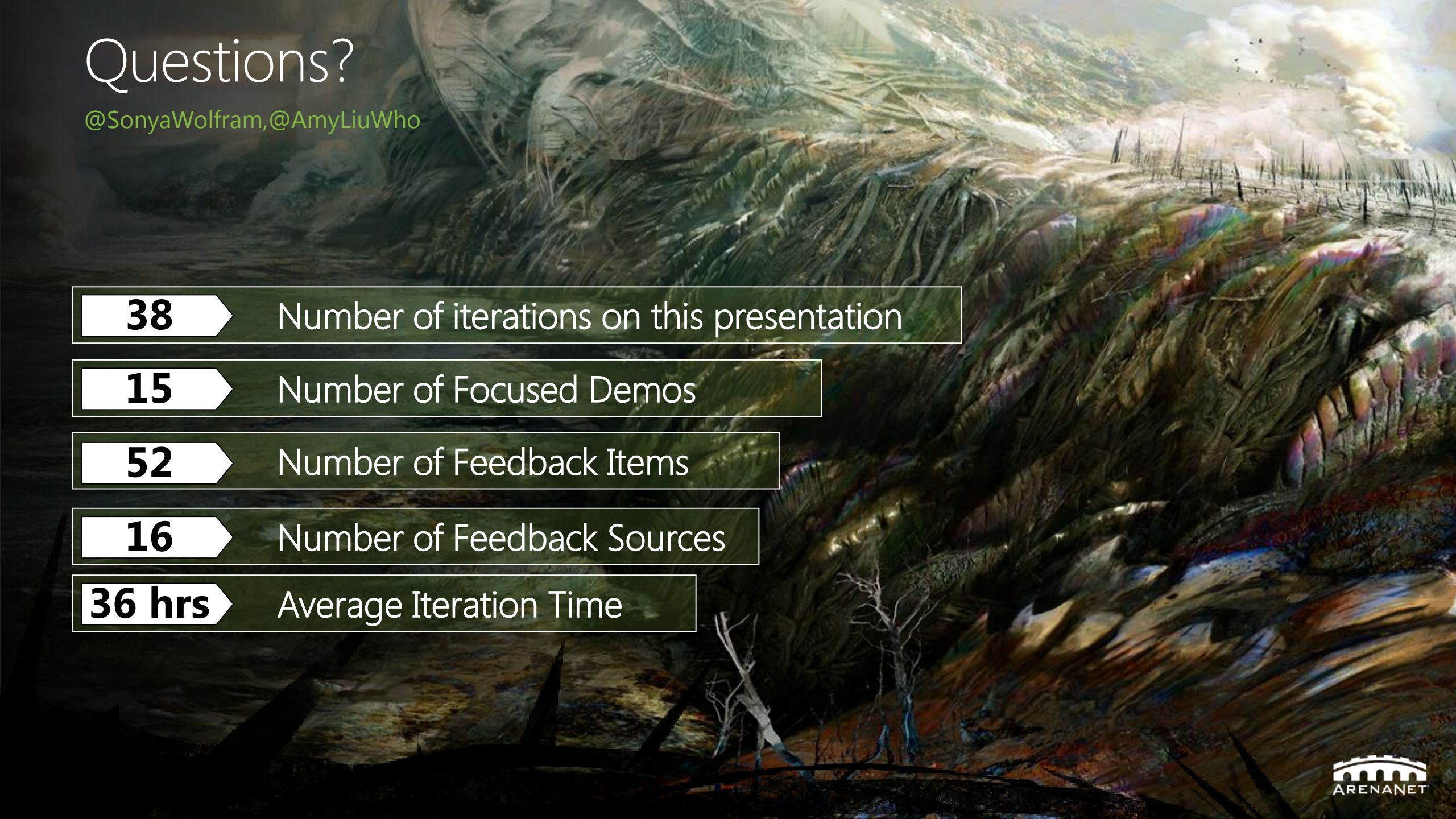
- Have a variety of iteration playtest types.
- Require a beta plan during pre-production
- Limit inter-team dependencies and weigh the costs of remaining work daily

Takeaways from HoT Iteration

- Use techniques to reduce iteration time to combat the expense of company playtesting
- Have clear goals and specific agenda each time that you ask for feedback.
- Encourage playing the game!

Questions?

@SonyaWolfram,@AmyLiuWho



38	Number of iterations on this presentation
15	Number of Focused Demos
52	Number of Feedback Items
16	Number of Feedback Sources
36 hrs	Average Iteration Time

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