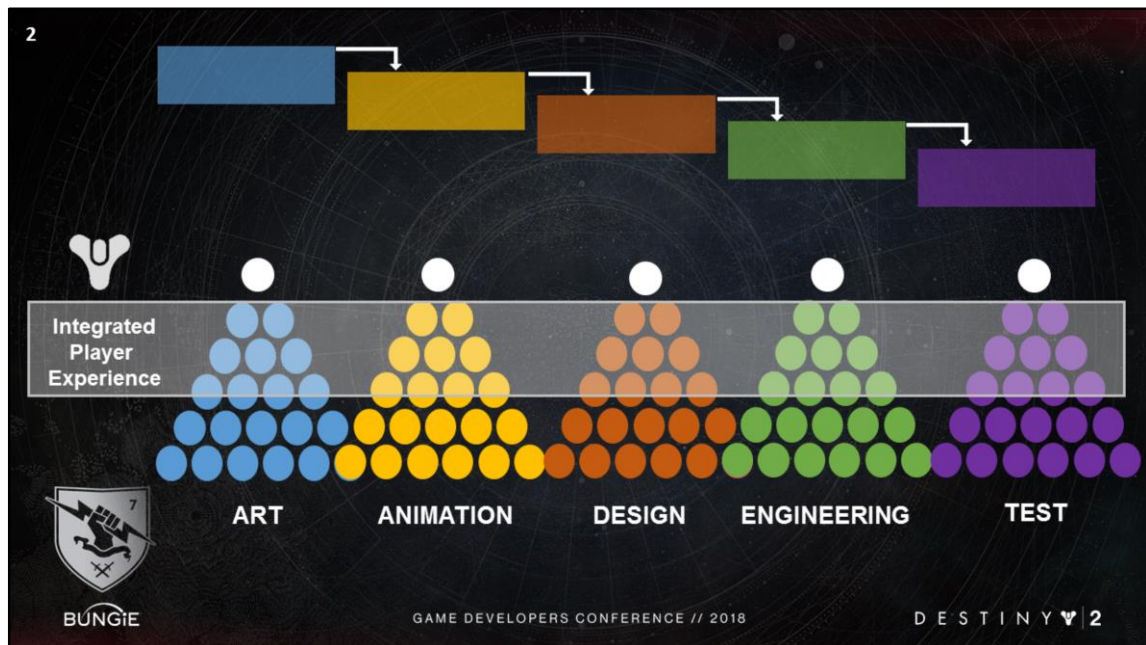




1:30

- Hi and Welcome! to **Epic Sync Wrangling the work of highly interdependent Dev Teams at Bungie**. My name is Linda Fane, and am Bungie's Senior Agility Lead.
- I have spent my whole career helping teams of creative people collaborate more effectively and have had the opportunity for the last 2 years to **help Bungie transform their ways of working** using agile and lean methodologies.
- I am here today because I want to share with you what **has been a powerful yet pretty simple practice** that we have experimented with at Bungie that has enabled us to achieve the level of synchronization we need to make **such a massive unified game**, at scale, Destiny 2.
- I've nicknamed the practice "Epic Sync". Bungie's Destiny 2 syncs are Epic because Destiny 2 is Epic, **but I am hoping you find the concepts and approaches useful**, no matter what size your studio may be or what level of synchronization you want to achieve.
- I want to briefly recap some points about our early agile transformation and then will pick up the story from there.



1:00

Throughout its 20+ year history, Bungie had a process for making games that was very successful. Served us very well and served our players very well.

We started with a typical smaller studio model, with our work organized primarily around its disciplines:

art, animation, design, engineering, test, etc.

with a producer organizing their work and managing the handoffs between disciplines in a fairly traditional waterfall workflow.

We carried this structure through from the Halo days into the original Destiny development. As one of our producers said, in a post-mortem right as the original Destiny was shipping, he said that the **hardest thing to do at Bungie was “anything cross-disciplinary.”** That wasn’t great, when many of the rich integrated experiences in Destiny involved the work produced by multiple specialty disciplines.

To meet the challenge of more tightly integrating disciplinary work for Destiny 2, we began conducting early experiments with small, cross-discipline teams.



:48

For Destiny 2, Bungie reorganized the content developers into “small teams”, following the agile/scrum model

These teams were designed with these characteristics.

CROSS-DISCIPLINE - level designers, engineers, world artists, test etc. working in a close knit unit, physically co-located, attending daily standups.

5 – 9 TEAM MEMBERS - proven sweet spot for managing collaboration and communication in a unit. 10 or more people the communication becomes unwieldy.

CLEAR TEAM MISSION & FOCUS - even a unique identity

SEMI-AUTONOMOUS - some localized decision making within appropriate constraints.

As Conor Crawley or Jagex said in his talk yesterday on CHANGE. He called team autonomy FREEDOM in a Box. I like that.

FOCUS ON CREATING HOLISTIC PLAYERS EXPERIENCES not solely focused on their individual discipline contribution

We were achieving close, collaboration among people of *different* disciplines, breaking down silos. This provided visibility into and understanding of each other’s workflows and unique challenges, which led to deepening trust, empathy and sharing of common

goals.....cross-discipline teamwork **is where real magic happens for creative teams, in my experience.**

This is where I am picking up the story from Patrick... Destiny 2 development was now configured in **these small team units. You put them all together, and you have this....**



:40

So here we are now making the massive, unified game experience that is **Destiny 2**, with roughly 40+ of these new formed small cross-disciplines teams. The next challenge we took on was how to best synchronize these **semi-autonomous units**.

To illustrate the sheer scale of our Destiny 2 team collaboration I am going to breeze through the different experiences in Destiny 2 and show you some of the teams that touch these moments.



Each moment that player's experience in Destiny 2 is created by multiple small teams working in concert with each other.

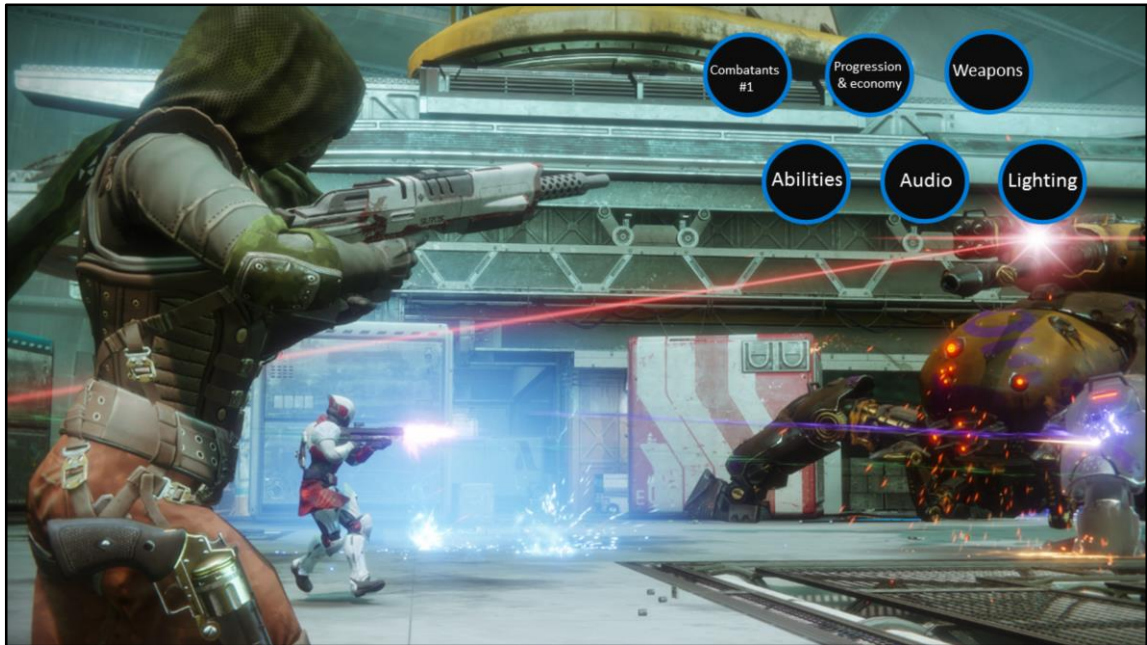
This is PVP The crucible

We have the PVP team, PVP Maps, weapons, armor, audio, lighting etc.

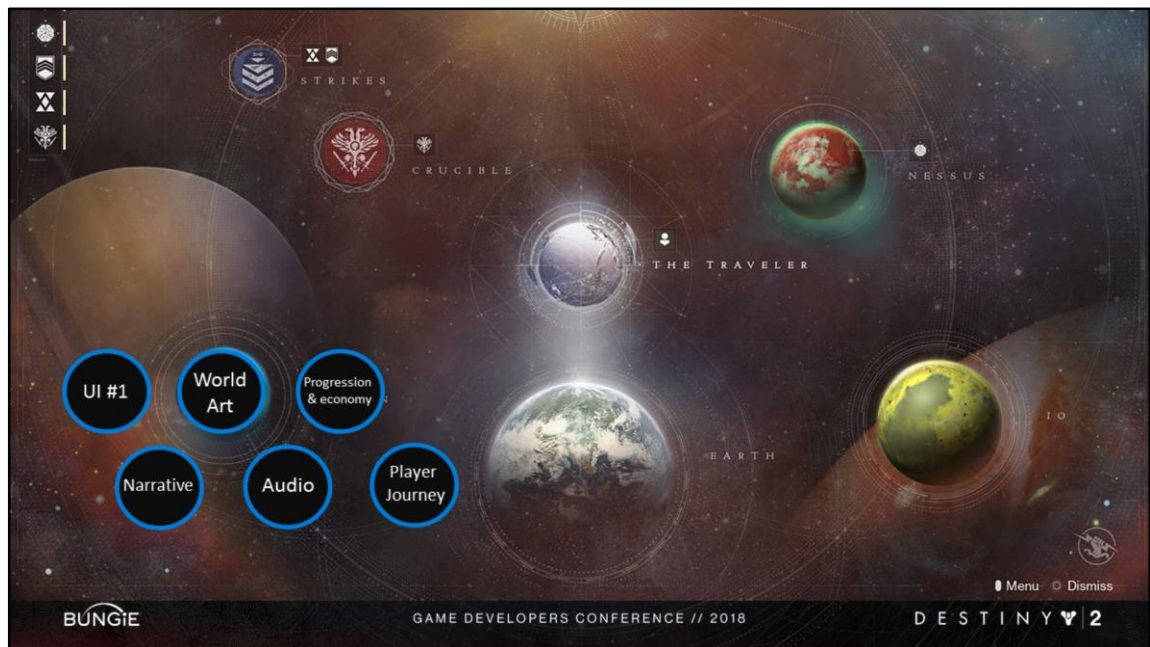


Destiny's environments, over a massive playable area spanning several planets each with their own art palettes.

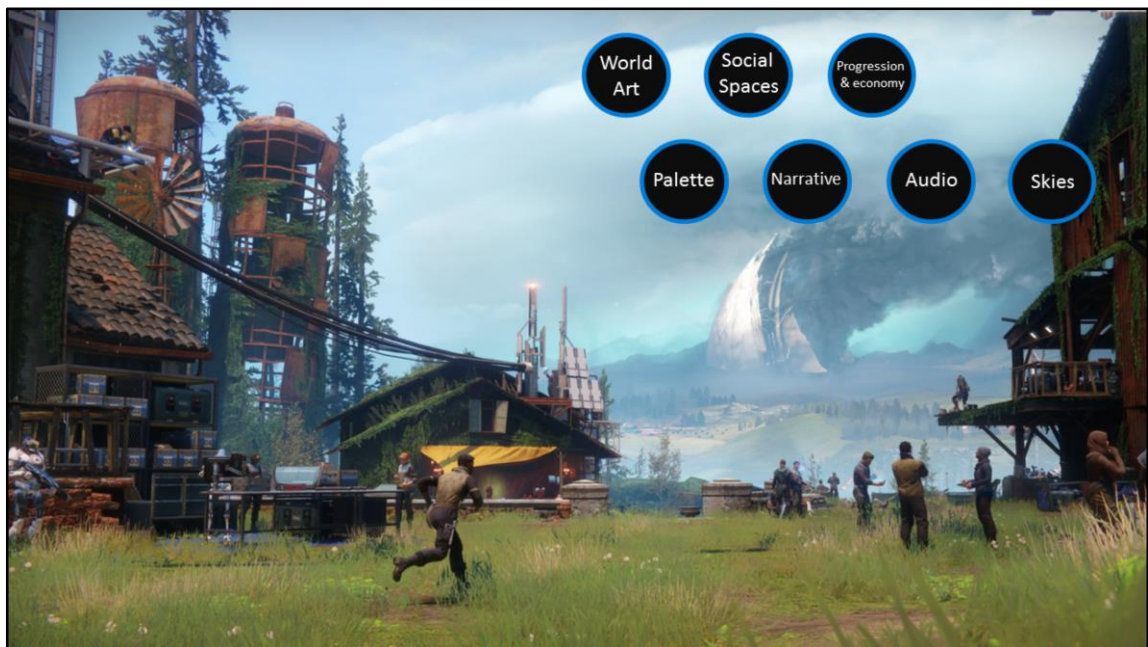
We have concept art, palette, skies....



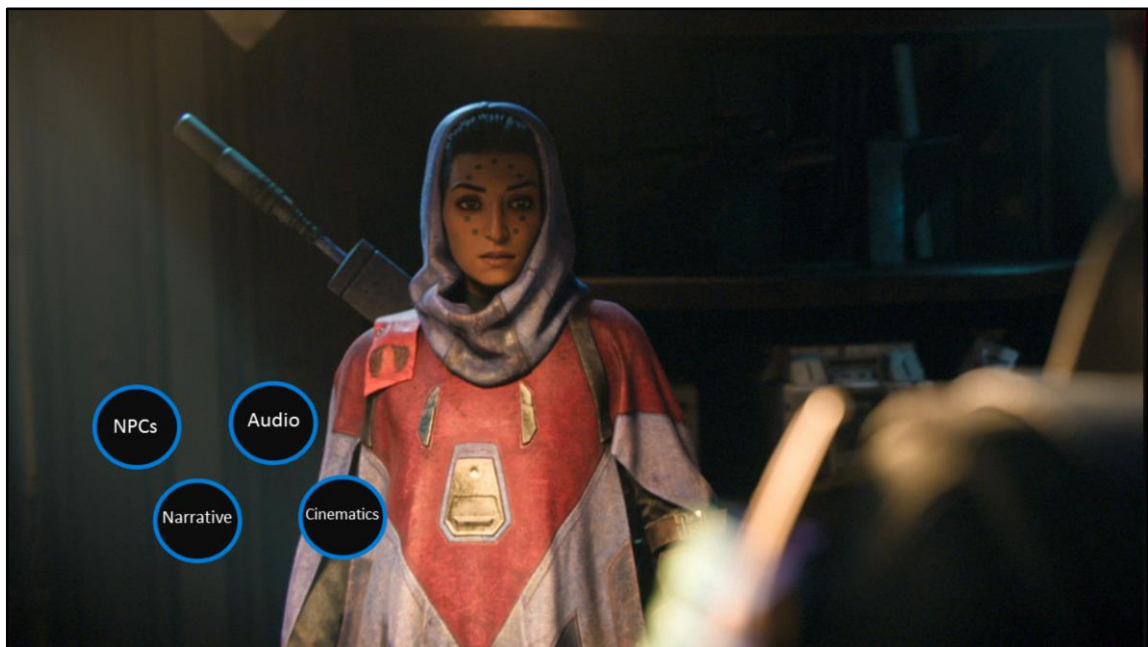
Public events where they can meet new players and tackle shared challenges. You will recognize **the Spider Tank Boss on Titan**.



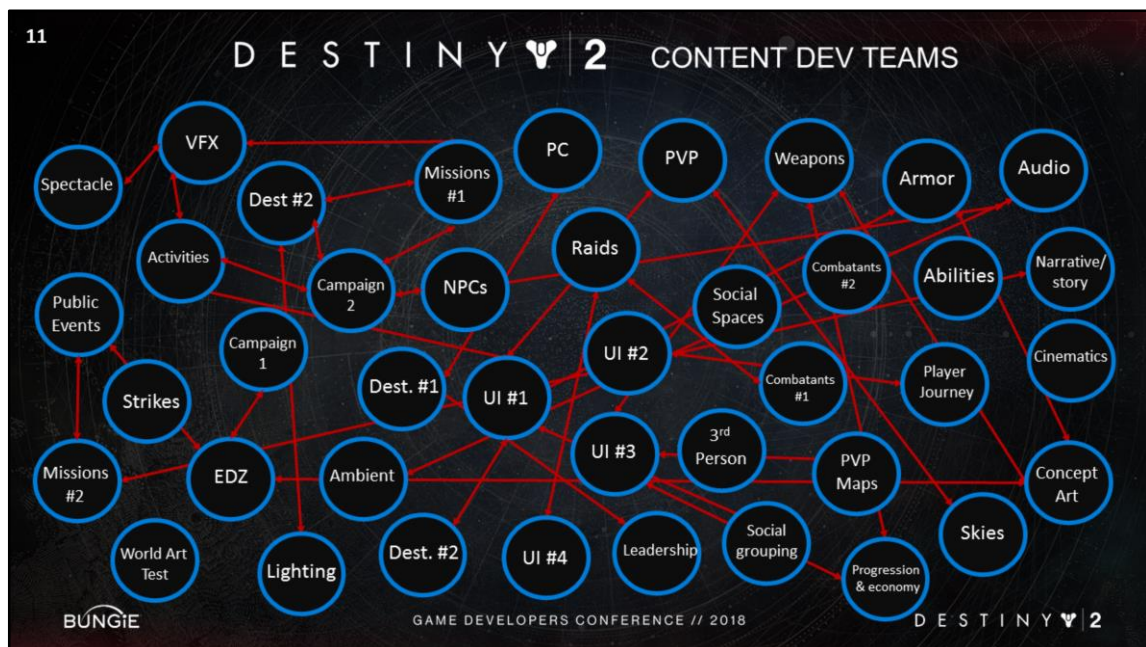
The Director and the underlying destination maps allow players to explore the solar system



Complex social systems including matchmaking, clans, guided games and social spaces.
The Farm.



Character vignettes and cinematic sequences, this one featuring my favorite character Hawthorne.



1:00

We achieved the benefits of small focused teams but the sheer number of these small teams we require to build our massive unified game... is now driving a complex web of interdependencies **between teams**.

the red lines illustrate the interdependencies.

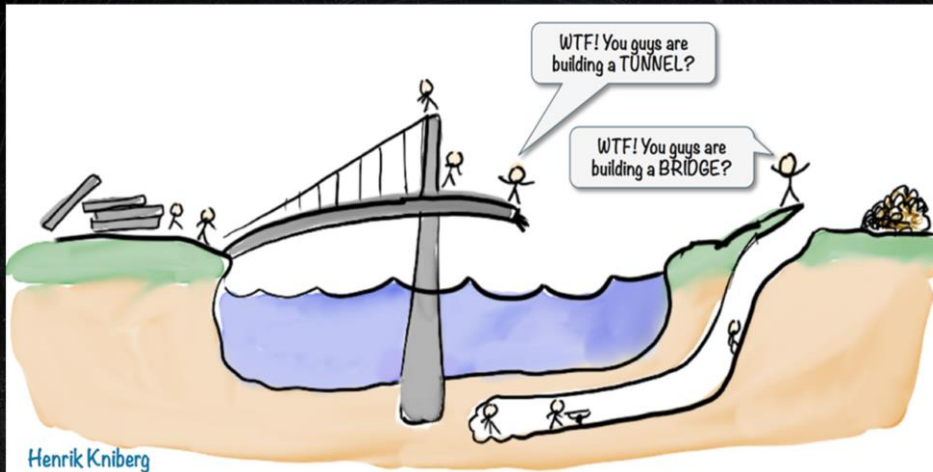
Definition - A **Dependency** is work your team requires from another to complete your features....normally hidden and hard to track. A text book agile scrum teams does not have dependencies, a unified experience at the scale of Destiny does.

Whoa....overwhelming....how do you sort this out?

we achieved a cross-discipline structure and now we were taking up the next challenge...

How to synchronize these team units with each other? How do provide a measure of autonomy, maintain continual alignment, while managing these dependencies? **How we do it is what I am going to share with you today.**

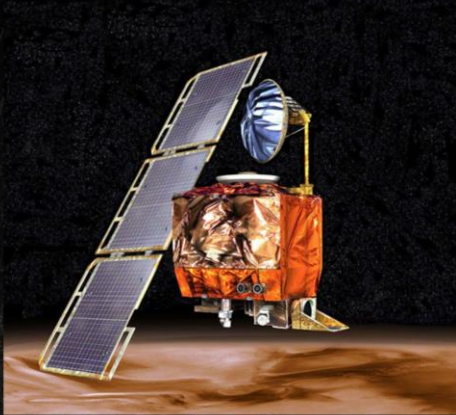
First....Why is alignment so important?



:30

In any large scale human endeavor, with teams working in parallel, alignment is key!

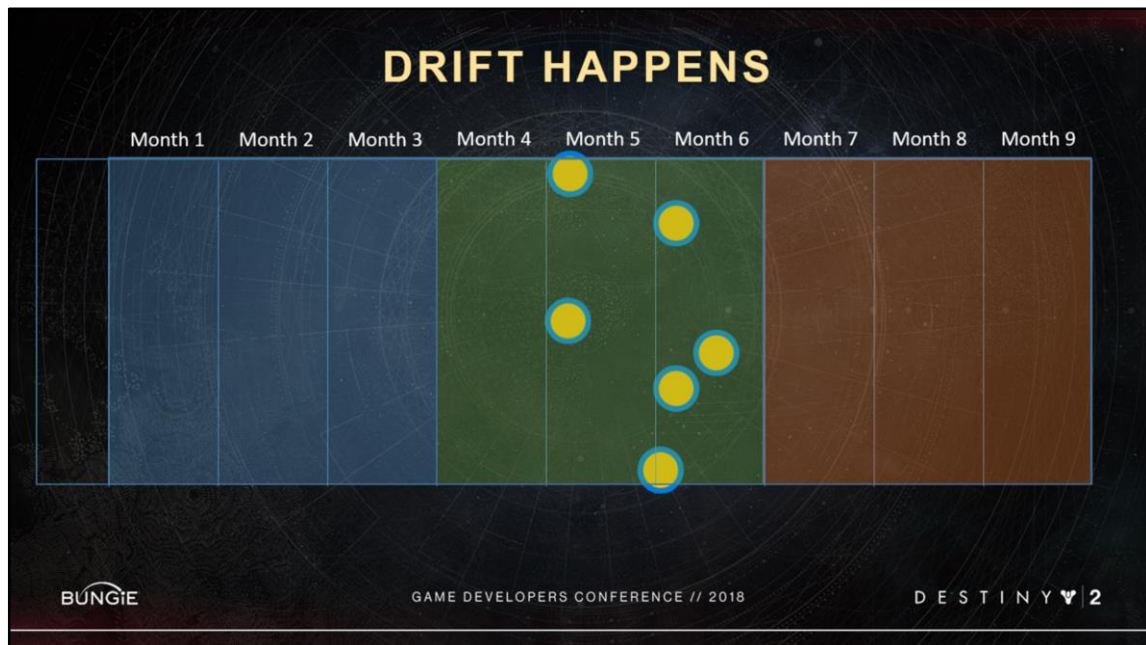
- In this example 2 different teams working autonomously. It is clear that they understood the end goal, "to cross this expanse" and started out to achieve that goal...but clearly lacked some sort of regular communication and coordination to stay aligned:-).
- Also dependency management. The teams working in parallel had a huge dependency....right?... they needed to hook up. That dependency was clearly not identified and managed.



Remember the Mars Climate Orbiter incident from 1999?

:40

- **Famous example of simple lack of alignment causing problems...**
- **Mars Orbiter** - in 1999 NASA lost a \$125 million Mars orbiter.
- The core problem...the Lockheed Martin engineering **team** building the thruster software used Imperial English units of measurement while the agency's team building the software system taking in the information used the metric system of measurement. This caused the orbiter to lose navigation and **crash** into the planet.
-
- They found out that misalignment had existed **for nearly 10 months, yet had been undetected.**
- **Main point:** Teams of very smart people can get out of alignment and cause problems.



:40

It is important to understand...that when you have semi-autonomous team units working in parallel, there is a **natural drift that occurs as time progresses.**

< animation, Back repeat>

Small divergences in understanding about scope or areas of responsibility become wider as development goes on If teams get more and more out of alignment, after a certain point, no **one individual team** has the power to correct it....

At Bungie, Patrick the Head of Production for Destiny 2 would use the analogy of a **fleet** of sailboats...the teams were like a fleet of sailboats, an armada, all heading to the same location.

With our new structure 40+ small teams, developing in parallel on Destiny 2 we asked ourselves what could we do to ensure we stay in alignment....in sync.

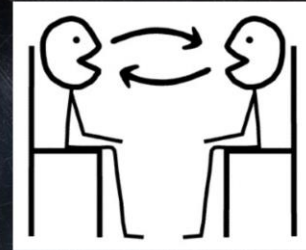
To search for answers... I went back to the fundamental agile Values and principles.

Show of hands...How many of you have some familiarity with agile values and principles. Roughly X % bear with me...

< >

Agile Values and Principles

- 1st Value: People and Interactions over process and tools
- Agile Principle #6: *The most efficient and effective method of conveying information to and within a development team is **face-to-face conversation**.*



Agile Rituals and Cadence

- Consistent rhythm of activity keeping teams in sync



Daily

- Standups

Bi-weekly

- Sprint Planning
- Backlog grooming
- Demo review
- Team Retrospective

.... could these concepts hold the key to synchronizing **40+ teams**?

F2F communication + regular ritual + many teams = X?



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DESTINY 2

2:00

- **The 1st value from agile manifesto – People and Interactions over process and tools.**
- Process and tools are useful but not as a replacement to high quality, human communication and collaboration.
- **Also Agile Principle #6 – "f2f conversations are the most efficient and effective method for communicating".**
- Research shows that 93% of **communication effectiveness** is determined by **non-verbal cues (body language, facial expressions, tone, inflexion) contains a ton of information.**
- Furthermore F2F comm is found to be the **most efficient** - *achieving maximum productivity with minimum wasted effort.*
- In this digital age, **we think** asynchronous, indirect, meditated communication (for example group email threads, shared documents) is **MORE EFFICIENT** because it **feels** like a more efficient way to communicate with **large groups** of people. But it is not **high quality communication.**
- "F2F communication with all of its social cues has been proven to also deepen understanding, empathy and help develop trust...all of which has been proven to

speed up the work of teams.

In addition to the values and principles, I also looked at the agile practice of rituals or ceremonies...

Agile rituals or ceremonies in agile. Agile teams use Rituals to keep synchronized **within the team** on a daily weekly, bi-weekly basis. Ritual = something you do at a regular repeatable cadence..

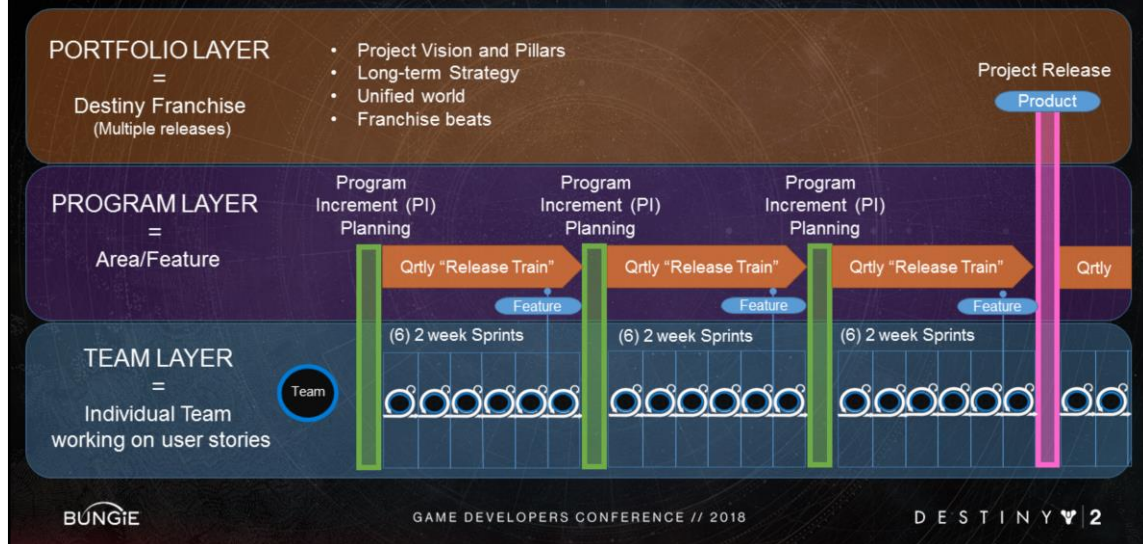
I am familiar with the well established agile/Scrum rituals to help **keep a team internally aligned**. Daily Standups, Sprint planning, Demo Review, Retrospectives

*.... could these concepts hold the key to synchronizing **40+ teams**?*

F2F communication + regular rituals + many teams = X?

Was there an agile ritual that had been proven effective to synchronize large amounts of (scrum) teams working on the same release? To look for that answer.... we explored the frameworks that were emerging that applied agile/scrum concepts at scale...like the Scaled Agile Framework.

SCALED AGILE FRAMEWORK



3:00

Scaled Agile Framework or SAFe addresses ways to apply agile concepts to multiple layers of an organization.

Briefly...3 layers

< to Team Layer>

< to Program>

< to Portfolio>

[CLICK] At the team layer: scrum team are the atoms. They work for the most part in 2 week increments, sprints, and deliver users stories.

- First generation scrum canon focused almost exclusively on this layer describing the practices, roles and rituals. Exhaustive literature written about it. I was more interested in learning more about the program layer. **I asked some SAFe experts was there a ritual in SAFe that helped to synchronized teams at that layer?sure enough there was. Yay. It is called....PI Planning!!!!.**

< to PI Planning>

- Bear with me....its a bit jargon...Program increment planning**A program increment**

is collection of work that is the output of many teams. It has a time-boxed **iteration like a sprint** but a PI timebox is typical one quarter (or 12 weeks)

- **There it was.... a PI Planning ritual** – brings teams together in one place and one time to plan roughly a quarters worth of work together, identify and resolve interdependencies....
- the collection of quarterly scope in SAFe is called a **“release train”**.

< release train >

- **Think of a release train as essentially a “container” of work for a quarter that gets planned in the "Big Room" PI planning exercise and then like a train it leaves the station to get developed over 6 sprints until it pulls into the next station 12 weeks later.**
- **“PI Planning” then is the process of determining what to put on the next "train".**
 - What are most important features we need to learn from this quarter?
 - What features contain a high amount of uncertainty that needs to be reduced?
...What are some Big Bets we want to prove out?

So I wondered...how does one do PI Planning?How does the ritual actually work?....I wanted to know more...

HENRIK KNIBERG DOES PI PLANNING

*aka. "Big Room"
Planning*

Planning as a Social Event

Scaling Agile @ LEGO

Henrik Kniberg & Eik Thyrsted Brandsgård
December 2016

- What? A 150-person meeting for ~~2-days~~ 1 day?
- Yeah! Every second month. Works great.
- But why? And how?



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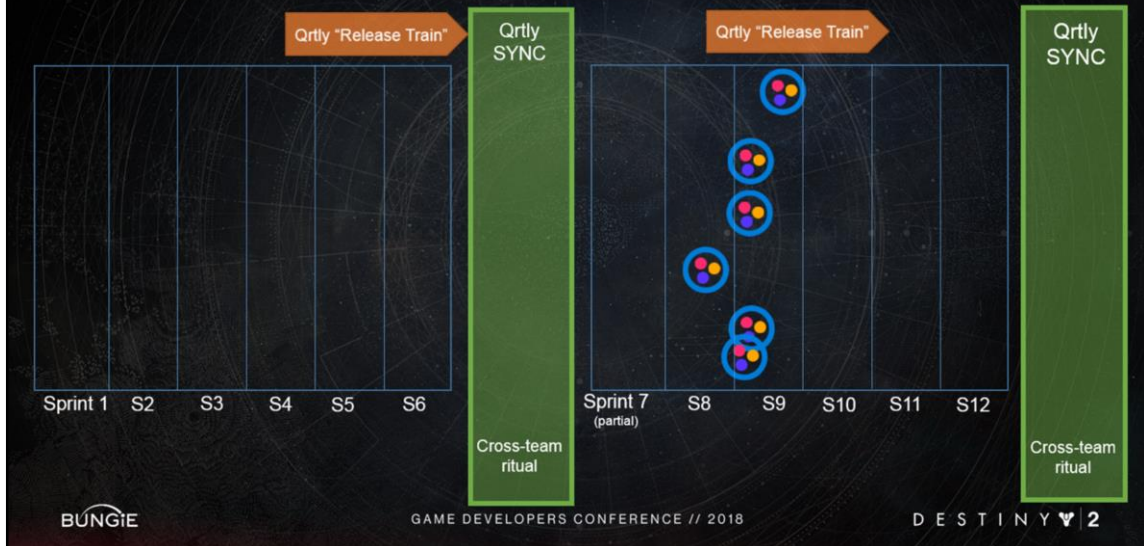
DESTINY 2

:25

- I stumbled onto a case study by Henrik Kniberg an influential agilest and agile thought leader who has worked with both Spotify and Lego and importantly...has a fun accessible approach to scaled agile, which can be daunting.
- In his case study, he detailed the experiments with PI Planning he conducted with the Danish company LEGO, what he tried, what failed, what he learned, how it evolved.
- I picked it apart, studied it, transcribed a You Tube video and used what he did **as a template for starting PI Planning at Bungie.**

18

SYNCING PREVENTS NATURAL DRIFT



30

- This concept of a quarterly big room planning exercise, an Epic Sync... What could this get us?

< animation>

....instead of the drift quarter over quarter, we would tightly sync every 12 weeks

< animation>

- A wonderful byproduct was that we could allow some measure of **freedom and autonomy for teams during the development sprints** knowing that we would be **regularly coming together to get** into alignment. Tighten things up.

OUR PITCH

- 40 Development teams, 300 people
- Offsite for 1 whole day, face to face
- To sync on vision, plan their team's work for the quarter and identify, discuss and resolve dependencies

Bungie's first Planning Day was born



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DESTINY 2

1:00

With this concept of PI planning in hand and an understanding of the mechanics, Bungie Production made the pitch to the Destiny 2 development teams and leadership. What if we got everyone

together in a room for a day

to Sync on vision, plan their team's work for the quarter, identify, discuss and resolve dependencies.

Bungie's first Planning Day was born.

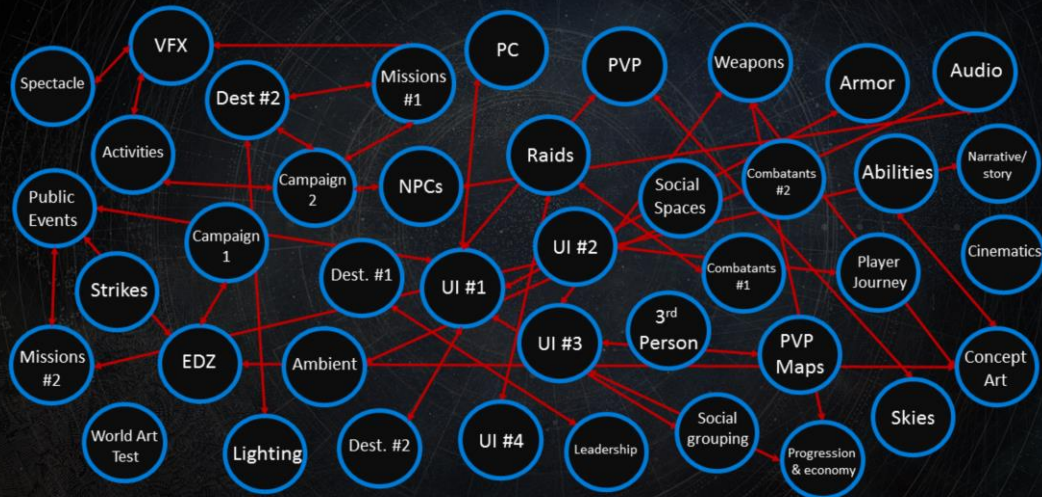
As you can imagine there was natural skepticism. "Take the entire development team off line for a day? Are you kidding?" It was a new idea and a fairly large, undertaking. A Bold move.

You might be wondering...How did we convince people?

- Well...there was **general recognition** that the way we planned and communicated, largely through indirect means was not optimal for the highly integrated development work we were doing on Destiny 2.

- We had an idea to try that had been proven successful for other companies.
- Most all were willing to try it at least ONCE to see how it goes.
- The spirit of being willing to try something bold like this and learn from it, is one of the many things I love about working at Bungie.

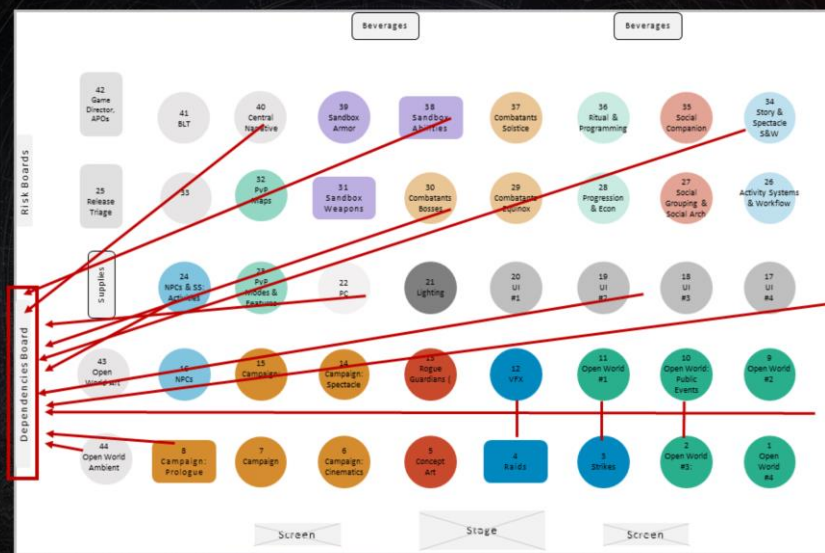
DESTINY 2 CONTENT DEV TEAMS



Ok so we went from this.....to...

21

to this....



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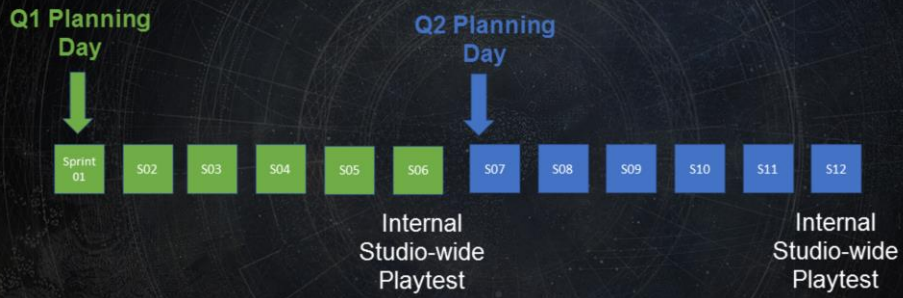
DESTINY 2

:30

To this....

- What you are looking at a hotel ballroom table layout. All of the content teams working on Destiny 2, 300 people, in the same location, for a full day of planning and f2f cross-team discussion, agreement and commitment.
- Dependencies that were previously in people's heads (or just free floating anxieties) were converted into physical entities (post-it note) and gathered in a central location in the room, transparent to all.

WHAT IS OUR DEV RHYTHM?



:10

Here you can see where Planning day occurs in our build cycle?

Every 12 weeks (6 sprints). Plan for a quarter's worth of work and then playtest as a studio and give feedback. We already had a natural cadence for quarterly (seasonal) builds so the cadence felt natural.



:65

- **Many companies doing PI planning dedicate 2 full days.** We just couldn't do that because we have so many releases in flight simultaneously.
- **To compensate we make sure that we do it in 3 steps.**
- **Step 1: dedicate 1 to 2 weeks** before planning day to clarify the vision and goals of quarterly build, allow teams to rough in planning of their work for the quarter.
- **Step 2:** the really valuable (and expensive) face to face time" on site could be focused on quality cross-team conversations. **That is what we had been missing.** We plan, identify and resolve dependent work, gain commitment directly from others face to face. At the end Teams have plans that they believe in. that is the power of planning day.
- **Step 3: After planning day,** have follow up conversations, and track dependencies.

Note: At Bungie, Producers are generally responsible for organizing and executing Planning day. With the Executive Producer ultimately responsible for the success.

PLANNING DAY AGENDA 10 AM – 5 PM

9:30 - 10:00 a.m.	Arrival & Settle in	1:00 - 1:30 p.m.	Teams generate dependencies
10:00 - 10:50 a.m.	Welcome and goals for the day Quarterly Product Vision and Roadmap Roles, Process and Artifacts review	1:30 - 3:30 p.m.	Dependency discussions and resolution
10:50 a.m. – 12:00 p.m.	Small Team Planning Plan your quarter	3:30 - 3:45 p.m. Break	
12:00 - 1:00 p.m. Lunch		3:45 - 4:15 p.m.	Wrap Up: Share major decisions made during day
		4:15 - 5:00 p.m.	Triage, POs, APOs, Producers review issues and commit support

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DESTINY 2

:40

Here is the agenda that we have tweaked and refined over many months.

4 main parts of the day

- Sync on vision – presentation from the creative leads (roughly an hour)
- Team planning at their tables (an hour and 10 minutes)
- Cross-team dependency identification and discussion (2 hours)
- And then wrap up and broadcast any major decisions that were made that day. (30 minutes)

We played with other components of the agenda. For example we initially had an activity where teams share their plans around the room in a **team science fair format**, but it took too long and we didn't find it super valuable.

25 Planning Day Artifacts

Team Board

TEAM	MISSION (What this team does)		
<Team name>			
OUR PRODUCT COMMITMENTS	S14	Xxxxxx xxx x xx xxx xxx x	Xxxxxx xxx x xx xxx xxx x
	S15	Xxxxxx xxx x xx xxx xxx x	Xxxxxx xxx x xx xxx xxx x
DEPENDENCIES ON OTHER TEAMS	S16	Xxxxxx xxx x xx xxx xxx x	Xxxxxx xxx x xx xxx xxx x
	S17	Xxxxxx xxx x xx xxx xxx x	Xxxxxx xxx x xx xxx xxx x
Risks/Open Questions	S18	Xxxxxx xxx x xx xxx xxx x	Xxxxxx xxx x xx xxx xxx x
	S19	Xxxxxx xxx x xx xxx xxx x	Xxxxxx xxx x xx xxx xxx x

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DESTINY 2

1:00

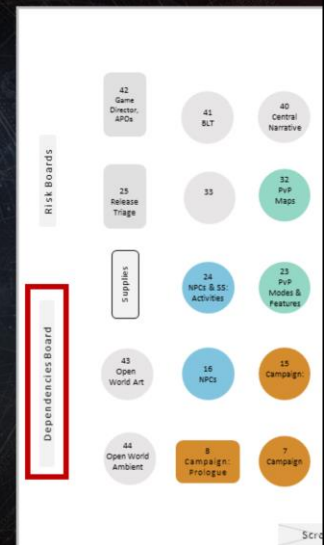
Brief intro to the 4 primary artifacts that we use to plan and synchronize on Planning Day

- **Team boards** –the focal point for team members planning out the 5 or 6 sprints worth of work at their tables. Has team name, Mission, their commitments for the quarter. A place for the dependency post it notes. Summary user stories on physical post-it notes are added in each sprint section. I use a large format printer to print these out in-house.

26 Planning Day Artifacts

Dependency Board

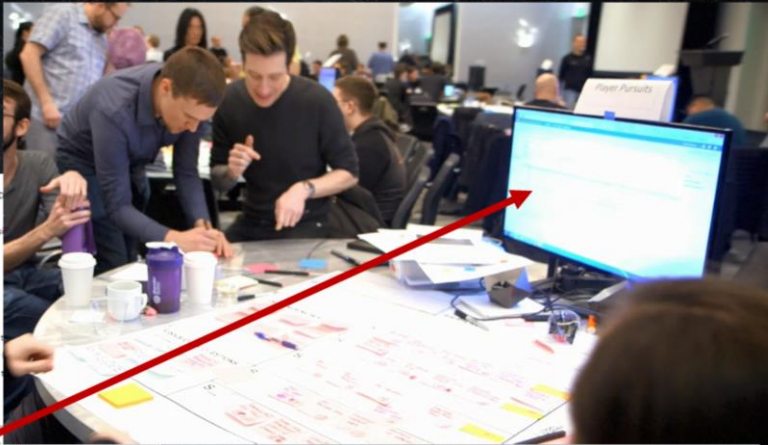
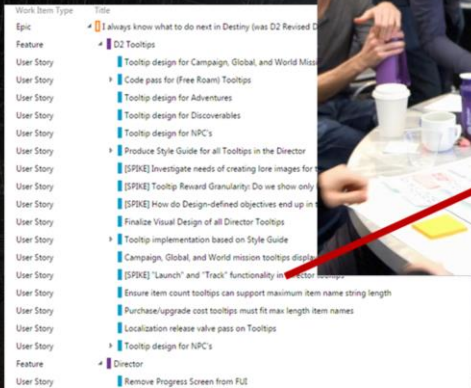
	PVP MAPS	COMBATANTS	CAMPAIGN	NPCs	SBX ARMOR	INVESTMENT/ RITUALS	OPEN WORLD
S14							
S15							
S16							
S17							
S18							
S19							



Dependency board - Is a grid that has all of the teams across the top and the sprints down the sides and is the focal point for cross-team discussions. Surfaces previously hidden work and expectations teams have of one another. Primary focus for the day. Here is a small snippet but our can be 25' long...you will see it in the video I am going to show a bit later.

27 Planning Day Artifacts

Electronic tracking/
TFS



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electronic work tracking (TFS)....which is the ultimate repository and tracking for the team's work after planning. Some might use Jira...we use Team Foundation Server.

28 Planning Day Artifacts



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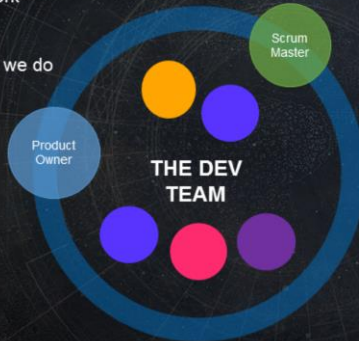
DESTINY 2

Lastly Risk Board – If there is an item or open issue that cannot be resolved via cross-team discussions, it gets put on the RISK board. Managing this board and resolving ownership of those issues is the main function of the Release Leadership team.

PLANNING DAY ROLES – THE TEAM

Product Owner

- Prioritizes team's work
- Negotiate scope changes/tradeoffs
- Determines "Should we do it?"



Scrum Master/Producer

- Facilitate the small team planning & dependency identification
- Drive feasibility discussions "Can we do it?"

Dependency runner

- place post-its on dependency board. Check the board for the team

Team Board/Sticky Note manager

- Help team to visually track and sequence work

Electronic entry person

- Update electronic backlog with scope

- **Team Board/Sticky Note manager** – Help team visualize the sprint work using the team board
- **Electronic entry person** – Keeps the electronic team backlog up to date.

PLANNING DAY ROLES – SUPPORT AND HELPERS

Game Director/ Design Director

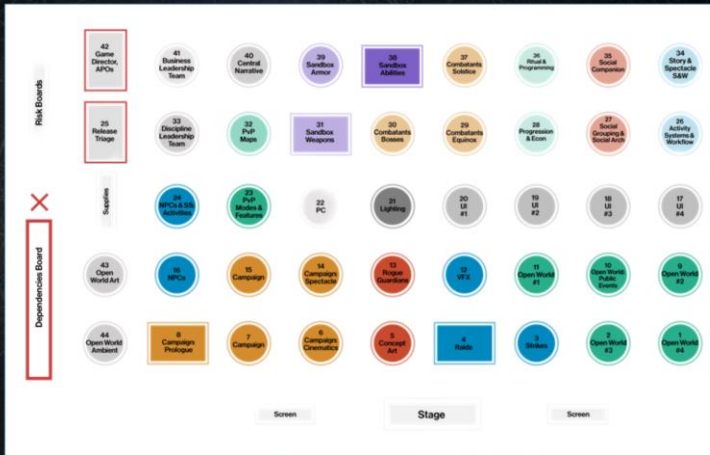
- Provide clarity on vision and pillars

Release Leadership

- Make decisions on the spot that can unblock teams.

Agility coach

- Chief Scrum Master. Manage dependency board and resolution



1:41

Game Director/Design Director/Area Product Owners – They presented the vision and pillars at the beginning of the day and are available throughout the day to help teams interpret pillars at a more granular level and align their work.

Release Leadership Team – project leads from all disciplines, make decisions to unblock teams.

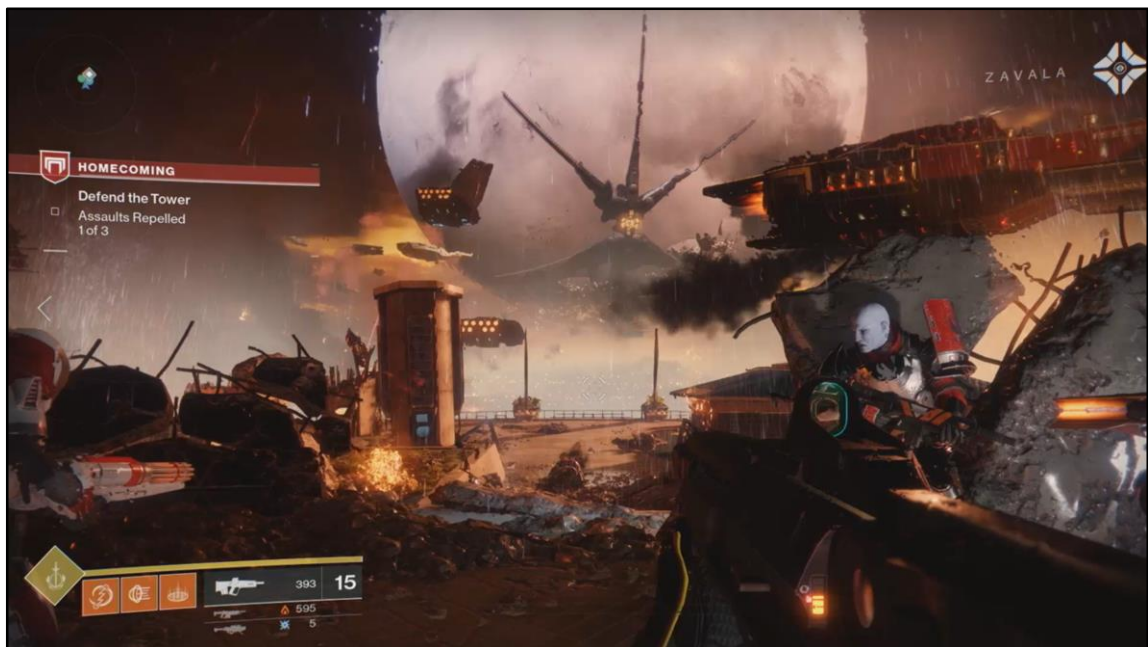
Amazingly valuable to have every person who can **make a decision regarding the game in the same room at the same time** and focused and dedicated. An immediate benefit is that we noticed that issues that previously could take weeks....in trying to schedule meetings with impossibly busy people, wrangling a decision to get made ...were resolved nearly instantaneously.

One team reported that there was an issue that had been an unresolved and lingering for 2 months, and with the right people in the room at Planning Day, it was resolved in 10 minutes.

Agility coach/Chief Scrum Master – Me. I manage dependency board. You will see me in action in a video a little later in this presentation. Like a sheriff...I don't let anyone leave the room until all of the dependencies are resolved!"

Transition: talked through the agenda, artifacts and roles, I will now illustrate how one user story/dependency might move through planning day. Let's take an example of a user story for an experience early in the Destiny 2 Campaign, **Zavala's Ward of Dawn, in-game vignette....**

I will show you the finished sequence so you know what I am talking about.



:48

In it, you'll notice you are in the midst of game play shooting cabal and Zavala steps in front of you and deploys the Ward of Dawn to protect you, incoming missiles are then repelled.

<Play video>

Normally the campaign team could execute on most experiences occurring within the campaign. Why was this unique?

This sequence had the Ward of Dawn being deployed within the GAMEPLAY...brings a robust cinematic-type effect **INTO** the game and then directly interacts with individual gameplay and game objectives, adding a level of complexity, intricacy and dependent work.

So how would this user story and its dependencies be managed during planning day?

TEAM PLANS, IDENTIFIES DEPENDENT WORK



TEAM Campaign		MISSION (What the team does)
OUR PRODUCT COMMITMENTS		S14 <input type="checkbox"/> PL:LOAD
DEPENDENCIES ON OTHER TEAMS To: NPC Team From Campaign Team "Ward of Dawn" vignette needed By Sprint 16		S15 <input type="checkbox"/> PL:LOAD
		S16 <input type="checkbox"/> PL:LOAD
Risks/Open Questions		S17 <input type="checkbox"/> PL:LOAD
		S18 <input type="checkbox"/> PL:LOAD
		S19 <input type="checkbox"/> PL:LOAD

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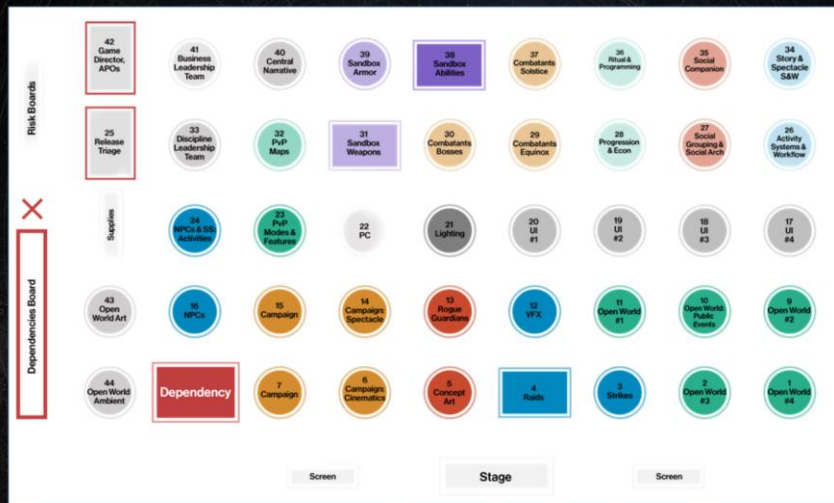
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:40

- Here is the Campaign team at their table doing their planning for the next 6 sprints using their team board.
- they write a user Story on a post-it note and put it on the team board, placed roughly in the sprint it will be developed.
- In this example: the user story might read...from the perspective of the player...***"As a Player, when I clear the enemies in the tower Zavala's protective Ward of Dawn is triggered."***
- Though the campaign team is responsible for the overall experience, the "Ward of Dawn" bubble shield itself is **created by the NPCs/Vignettes team, not their team**. So they create a **physical dependency** in the form of a RED post it note.

DEPENDENCY PLACED ON BOARD



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DESTINY 2

:12

The **Dependency runner from Campaign team** (which is the “requesting” team) brings the Red post-it note to the dependency board and places it on the NPC team column (The “providing” team). and sprint in which they need it

- "Requesting" Team adds dependency
- "Providing" team checks board and picks up dependency

	PVP MAPS	COMBATANTS	CAMPAIGN	NPCs	SBX ARMOR	INVESTMENT/ RITUALS	OPEN WORLD
S14							
S15							
S16							
S17							
S18							
S19							

To NPC
From Campaign
Ward of Dawn
vignette
Sprint 16

:15

Like this.....

The NPC Dependency runner (providing team) checks their column, sees the note. They go to find the PO of the Campaign team to talk about the ward of dawn vignette needed.

THE PROCESS DRIVES FACE TO FACE DISCUSSIONS



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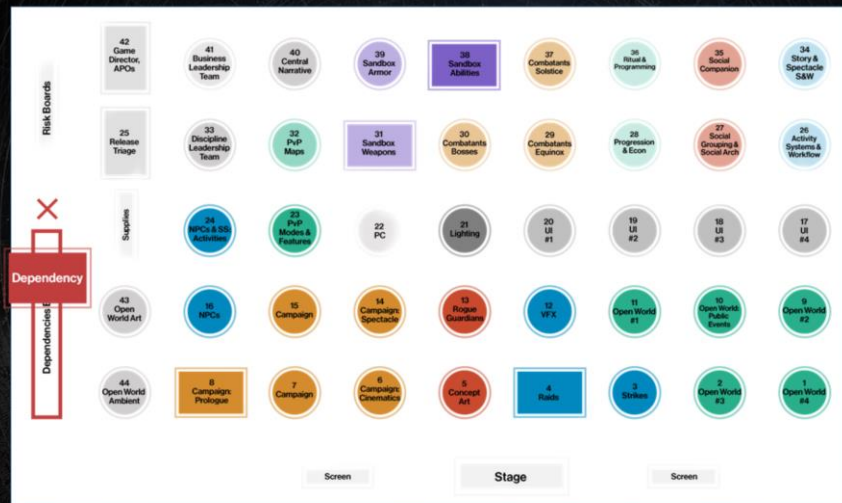
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:30

- The main job of the Post-it note artifacts is to **drive a conversation**....very effective.... making a dependency into a “thing” that you hold in your hand....physically representing a need for a conversation.

BRINGS DEPENDENCY BACK TO THEIR TEAM



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:10

After a conversation between the Campaign and NPC teams, the red dependency post-it is brought back to the “providing team” and considered and placed on their backlog.

TEAM
NPCs

MISSION (What the team does)
We build NPCs, vendors and Vignettes

OUR PRODUCT COMMITMENTS

DEPENDENCIES ON OTHER TEAMS

Risks/Open Questions

Sprints and tasks shown on the board:

- S14: XXXXXXXXXXXXXXXX, XXXXXXXXXXXXXXXX, XXXXXXXXXXXXXXXX
- S15: XXXXXXXXXXXXXXXX, XXXXXXXXXXXXXXXX, XXXXXXXXXXXXXXXX (PT - LOAD)
- S16: XXXXXXXXXXXXXXXX, XXXXXXXXXXXXXXXX, XXXXXXXXXXXXXXXX (PT - LOAD)
- S17: XXXXXXXXXXXXXXXX, XXXXXXXXXXXXXXXX, XXXXXXXXXXXXXXXX (PT - LOAD)
- S18: XXXXXXXXXXXXXXXX, XXXXXXXXXXXXXXXX, XXXXXXXXXXXXXXXX
- S19: XXXXXXXXXXXXXXXX, XXXXXXXXXXXXXXXX, XXXXXXXXXXXXXXXX

Work Item Type

- Epic: Always know what to do next in Destiny (uses D2 Revised Director Experience)
- Feature: D2 Tooltips
 - Tooltip design for Campaign, Global, and World Missions
 - Code pass for (Free Roam) Tooltips
 - Tooltip design for Adventures
 - Tooltip design for Discoverables
 - Tooltip design for NPCs
 - Produce Style Guide for all Tooltips in the Director
 - [SPIKE] Investigate needs of creating lore images for tooltips
 - [SPIKE] Tooltip Reward Granularity: Do we show only high-level rewards or all rewards (e...)
 - [SPIKE] How do Design-defined objectives end up in the tooltips?
 - Finalize Visual Design of all Director Tooltips
 - For Campaign: Ward of Dawn vignette**
 - Campaign, Global, and World mission tooltips display lore image related to Questline/SL...
 - [SPIKE] "Launch" and "Track" functionality in Director tooltips
 - Ensure item count tooltips can support maximum item name string length
 - Purchase/upgrade cost tooltips must fit max length item names
 - Localization release valve pass on Tooltips
 - Tooltip design for NPCs
- Director: Remove Progress Screen from FUI

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As you see here...the team being asked to take on the new work, brings the dependent work back to their team planning board.

Do a quick costing exercise and fortunately they are able to slot it into the desired sprint and adjust their scope accordingly.

they then put it into the electronic backlog,

which is the ultimate source of truth for team's scope of work for the quarter. The work is transparent and visible to all.

	PVP MAPS	COMBATANTS	CAMPAIGN	NPCs	SBX ARMOR	INVESTMENT/ RITUALS	OPEN WORLD
S14							
S15							
S16				To NPC From Campaign RESOLVED			
S17							
S18							
S19							

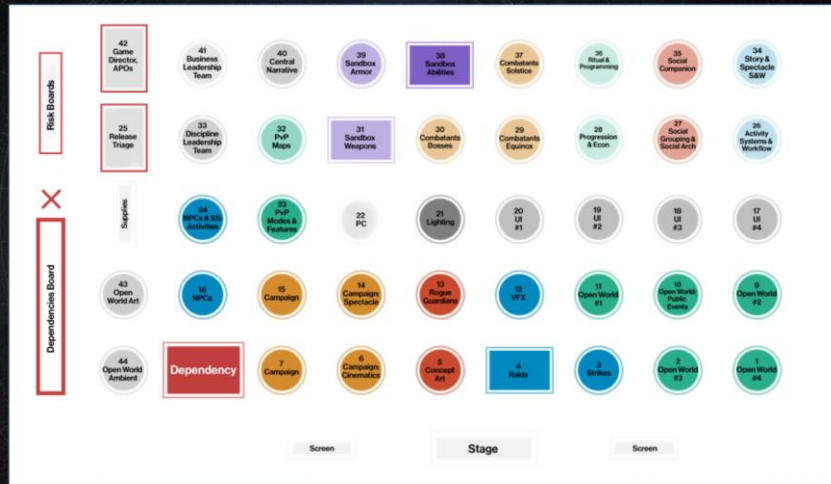
their backlog, and that they have **publically COMMITTED TO** it.

Literally we can't leave the room until all the dependencies are resolved. Either resolved by the other team accommodating the work as in our example or they can't and the scope of the feature is adjusted.

So....that intricate player experience, the in-game ward of dawn vignette, can now be worked on **by 2 teams in parallel** and that coordination is set up at Planning day.

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COMPLEX PROBLEM SOLVING AT PLANNING DAY



1:45 (26 mins)

So that example illustrate was what could be considered the golden path of planning day. Dependent work is discovered, the providing team is able to replan their work to accommodate and they commit to the work and resolve the dependency.

But what happens when the teams can't sort it out themselves....or there might be differences of opinion on what is important.

For example lets say the NPC vignette team has a full plate for the quarter and can't fit it developing the ward of dawn vignette. But the requesting team feels it is the priority. They are stuck.

Well as I said what is unique about planning day is EVERYONE who has a stake in ANY important decision is in that ONE room and is engaged. Tradeoffs can be discussed and decided right there on the spot.

So the teams would escalate the issue to the Release leadership team via the Risk board.

Release leadership team sits next to and keeps an eye on the risk board. The Release leadership team (or triage team) is made up of the Project lead and the leads of all of

the major discipline leads on Destiny 2.

This group is ultimately responsible for ensuring that **we have a unified plan** for the game and all are moving together to realize that plan. They are the ultimate escalation point. The deciders.

TRANSITION to Video- Those are the mechanics...dynamic ritual....the agenda, the roles, the artifacts, an illustration of how it works.

Ok let's put it all together. Do you want to see Bungie's planning day in action?.....

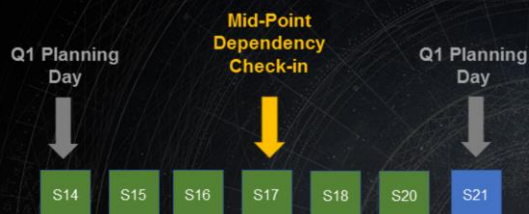
(Video of Planning Day)

Those are the mechanics...dynamic ritual....the agenda, the roles, the artifacts, an illustration of how it works.

Ok let's put it all together. Do you want to see Bungie's planning day in action?.....

Planning Day video 2 minutes –

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- Large conference room onsite at Bungie
- Team Product Owners and Producers only
- Prepare to check-in on the dependent work still outstanding
- Go around room and have the conversations you need
- Your team is done when teams depending on you have gotten what they needed from the sync.



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:40

You may be wondering how we keep tabs on the dependencies after Planning Day. This slide is to show the cadence of planning days and what we call a dependency check-in

...known in agile parlance as Scrum of Scrums

TWEAKED PLANNING DAY RITUAL OVER TIME

- How much prep should the teams do before going onsite?
- Wrap up: How to share out teams plans efficiently?
- Do all team members have to stay for the entire day?

1:06

So after the initial experiment we continued to iterate and evolve it over 12 iterations so far...Just experiment, reflect and iterate...

- We have kept the same basic structure but have never done it exactly the same way twice.

Play around with how much prep to do in . First time. Leads did almost too much planning in and the teams wanted more participation. Next time didn't do enough prep to make the dependency section valuable.

Wrap up: How to share out teams plans – As I mentioned we started with doing a Team “Science” Fair type activity that Henrik Kniberg suggested but it took too long and the value to everyone in the room was diminished...ended up sharing out major decisions that had been made and had the team boards available afterwards.

We started out requiring the teams stay intact for the full day exercise so everyone got experience and an understanding of how the ritual was supposed to work. Now that everyone is familiar with it, we let the teams leads do their own self organization to meet the goals for the day. Every team is different. After the team planning part of the day after lunch, some team members can take off.

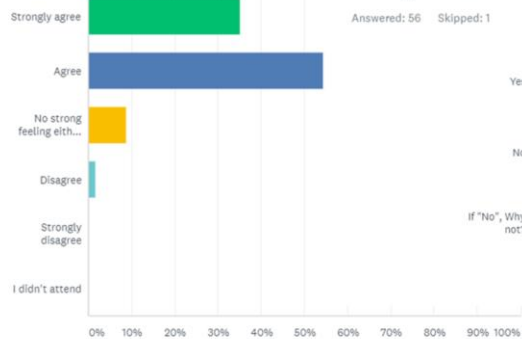
It is an infinitely flexible format. Just make sure that you are continually evolving it so that it continues to provide maximum benefit and value. To keep on top of the benefit we gather data after every planning day.

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Gather Data after every Planning Day

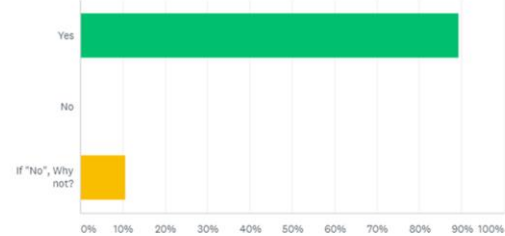
D2 Cross-team Planning Day was valuable in gaining cross-team visibility and identifying dependencies.

Answered: 57 Skipped: 0



Does your team have a Winter Build plan that you believe in?

Answered: 56 Skipped: 1



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:20

Gather data after every planning day. We use Survey Monkey. It will help you to stay on top of it, expose any blind spots or complacency..

Is this valuable? $35 + 54 = 89\%$ said yes.

Do you now have plans you believe in? 90% said yes. Confidence is reassuring

MANY CONFIGURATIONS OF PLANNING DAY

LARGE OFFSITE (3)

- 300 person project team
- single hotel ballroom



MID-SIZE OFFSITE (2)

- 150-200 person project team
- single hotel ballroom



MIXED OFFSITE/ONSITE (1)

- 90 person project team
- Kickoff presentation are offsite, breakouts onsite in Bungie conference rooms



ALL ONSITE (6)

- 75 person project team
- Kickoff presentation, breakouts onsite in Bungie conference rooms



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:43

After 12 iterations over the past year and half, planning day is now firmly established. It has become an integral part of our development with multiple variations experimented with.

Works for any team size. It is an infinitely flexible concept, 4 major variations go through them. So that you can adapt to smaller studio..

All have same components –

- Reviewing vision and priorities,
- team planning, surfacing dependencies,
- 2 way conversations real-time decision making,
- commitment and establishing accountability.

We have even started experimenting with Virtual Planning Day for some of our partner teams.

PLANNING DAY RITUAL

REGULAR ALIGNMENT OF ALL TEAMS WITH
PRODUCT VISION AND PILLARS

DEPENDENT WORK IDENTIFIED AND TRACKED

AUTHENTIC CROSS-TEAM COMMITMENTS
MADE FACE TO FACE

EFFICIENT AND TRANSPARENT DECISION MAKING

**INCREASED
PREDICTABILITY
AND
AGILITY**



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:39

We saw the positive effect immediately in our first major winter build after 2 quarterly planning days.

1. **REGULAR ALIGNMENT** of all teams against release goals
2. **DEPENDENT WORK IDENTIFIED AND TRACKED** – *largely hidden interdependencies...*
3. **AUTHENTIC COMMITMENTS** by the teams doing the work
4. **EFFICIENT AND TRASPARENT** DECISION MAKING

PREDICTABLE DELIVERY of milestones prevent “the drift” that happens with teams out of alignment...gave us a clearer idea of what we would be getting at each milestone

Transition: Responses to Planning day...

“Planning Days are now a vital part of shipping our games”

-- Destiny 2 Team retrospective comment

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:25

- This is a quote taken from our project retrospective
- After the initial skepticism, the ritual is highly regarded as a permanent part of our process. Thankfully the usefulness of the process was pretty quickly apparent to the participants. There are (and always will be) people who would rather spend the day at their desks building the cool stuff for our players, but very few people could deny that it was helping us to deliver more effectively.
- And in my opinion...it is a fun way to make games.

KEY TAKEAWAYS

- As your game grows in size and complexity. The benefits of well-designed, well-executed sync rituals are huge
- Never underestimate the value and impact of face-to-face communication...
- Spending a whole day planning feels like a huge investment but it well worth it
- Don't get complacent! Continuously inspect and adapt.

:58

As your game grows in size and complexity. The benefits of well-designed, well-executed sync rituals are huge

Efficiency, alignment, increase in trust and accountability, transparency, empowerment, higher product quality....

Never underestimate the value of face-to-face communication...

...and build your development “machine” in a way that encourages these to happen. We proved that size is not excuse to talk face to face..

Spending a whole day planning feels like a huge investment...

...but it's way cheaper than wasted work and

missed deadlines. Don't be afraid to do something BOLD.

Don't get complacent!

Continuously adapt your rituals to meet evolving team needs.

That is it. My hope is that you take something away from this that you find useful or inspiring to try and experiment with at your own studios....whatever the size to keep your teams synchronized.



Thank you!

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Please take a moment to fill out the survey. This is my first time presenting here and I would appreciate your feedback.

If there are developers or agilists out there who have questions, I would be happy to chat in the overflow room out and to the right. Have a good one!



Wrap-Up Room

Attendees often wish to ask additional questions of speakers after the session is over. In order to keep our session schedule on track, we ask that you invite attendees to the nearest Wrap-Up Room after your session to continue the dialogue. Make sure to plan your schedule with ample time after your session if you wish to take part in this opportunity. It is not mandatory.

Wrap-Up Rooms will be located at:

- Overlook 2022, West Hall
- Overlook 2024, West Hall
- Overlook 3022, West Hall
- Overlook 3024, West Hall

There will be additional wrap-up space in North Hall, Lower Lobby near the VRDC@GDC rooms.

<RESOURCES>

- <http://blog.crisp.se/2016/12/30/henrikkniberg/agile-lego>
- <https://crisp.se/wp-content/uploads/2016/12/Agile@Lego.pdf>
- <http://www.scaledagileframework.com/lego-case-study/>
- <http://www.scaledagileframework.com/pi-planning/>
- Presenters
 - Linda Fane, Senior Agility Lead – Bungie, Inc:
<https://www.linkedin.com/in/lindafane/>