



Ron Quartel

Thinking Big While Working Small:
With Discovery Mapping



Agenda

(After introduction of Speakers and Topic)

Why – Why do we need new ways of visualizing work?

What problems are we trying to solve?

Complex vs Complicated

Cynefin Model

What – what is the solution?

How can we represent complexity?

What - Thinking Big: Product Mapping



Thinking Big – A tool for Product Managers to visualize the big picture so that the entire tribe has a context of where we are going and the context of the work items. Show progress, releases, and can be used for forecasting completion.

What – Working Small: Discovery Trees



Discovery Trees are mostly for devs: aid breakdown, understand work, track work, report on progress, forecast completion (optional), and maintaining context.

Real World Examples

Of Discovery Trees

Retrospective

What did you learn?

Benefits, Summary, Closing

Summary of Benefits
Tooling
Similar Concepts
Finding Out More - References
Staying in Touch - Links



Thinking Big While Working Small

Introduction to Topic

Thinking Big While Working Small



John Cutler

Work Big



Takes forever

Work Small



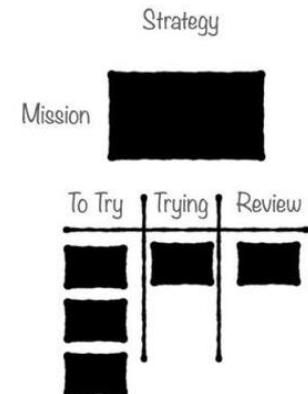
Iterate in circles

Define Big
Work Small



Slog
Eternal burn-down

Think Big
Work Small



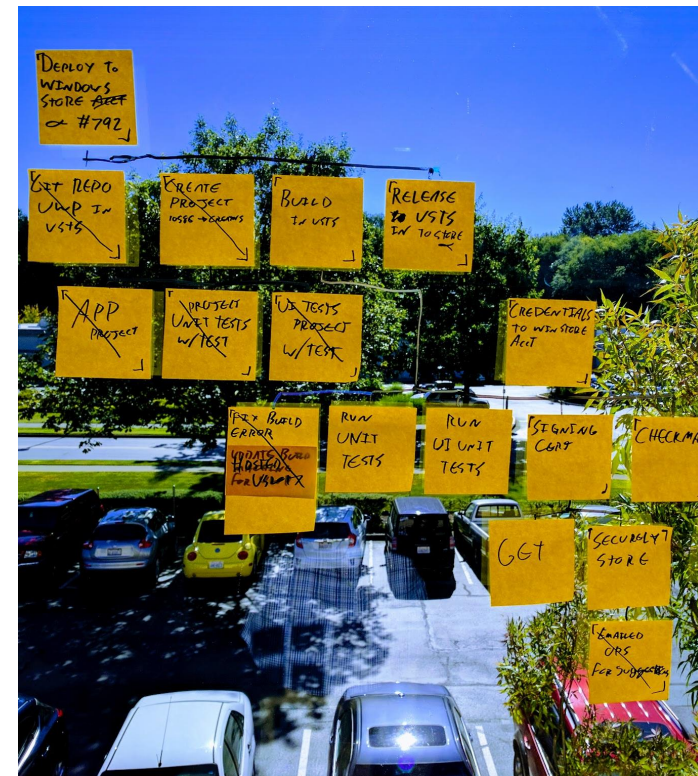
Right balance

Discovery Mapping: Product Mapping + Discovery Trees

Product Map



Discovery Trees





Who is Ron Quartel?

- Writing software since my teens (Apple II)
- Agilist since 2002 - eXtreme Programming (XP)
- Dev, Dev manager, consultant, entrepreneur, TPM, **agile coach, technical coach**, pre-sales engineer, trainer, presenter
- Tweeter, Blogger, Code Crafter, Pioneer, Entrepreneur
- Founder of Fluid Scaling Technology (FAST Agile)





Who is Paige Watson?

Three Truths and A Lie about Paige Watson

- When a 5000+ line BASIC file failed to render a picture of Farah Faucet, he decided to give up programming forever.
- In 2000, Paige heard about XP development and asked a co-worker to try pairing with him, only to be laughed at.
- Paige left a lucrative career in the Adult Industry to teach the world to build better software.
- Paige is one of the only two people in the world to attain the extremely hard "Certified FAST Instructor" certification.
- Paige is currently a Technical Coach, Mentor and runs the Seattle Code Crafters meetup.



Who else do we have here today?

Developers, PMs, Scrum Masters, POs, Managers, other...

Our Hope:
by the end
of this
session...

- Product Managers have a new tool
- Developers have a new tool
- Everyone understands complex vs complicated
- Everyone has experienced Discovery Mapping in an exercise
- Everyone can see the power and benefits these tools can bring
- Everyone really likes Ron and Paige – and want to stay in touch with us



Lindsay Warren • 1st

1h ...

Certified Scrum Master and Team Lead at MAXIMUS Canada

My team and I did our first discovery map late last week and it was such an effective tool! It also enabled my team to self direct and plan so I could focus on the big picture and trust that if I needed to drill down, the map would explain where we were at and why.
Thanks for the great tool!

Why – Why do we need new ways of visualizing work?

What problems are we trying to solve?

How we think of work

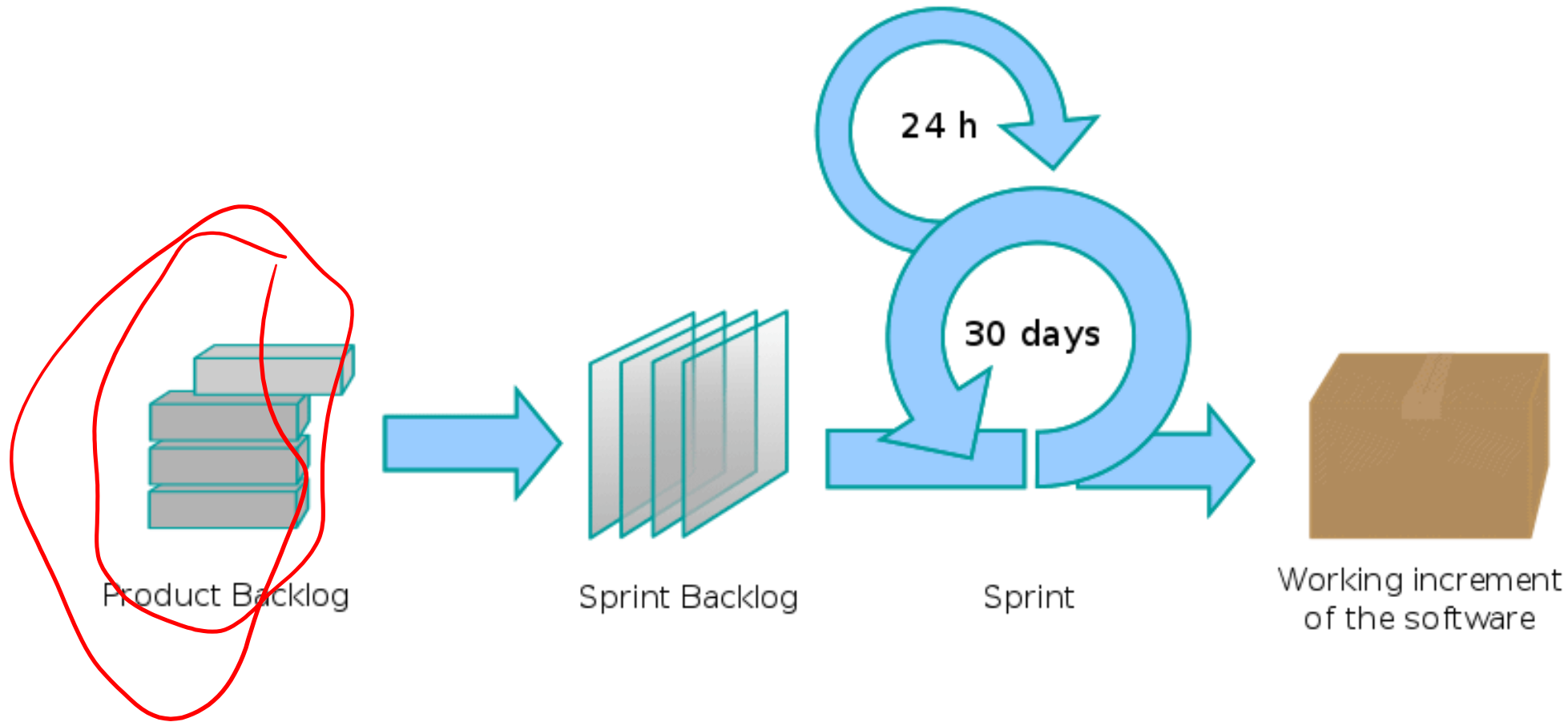
Trees...



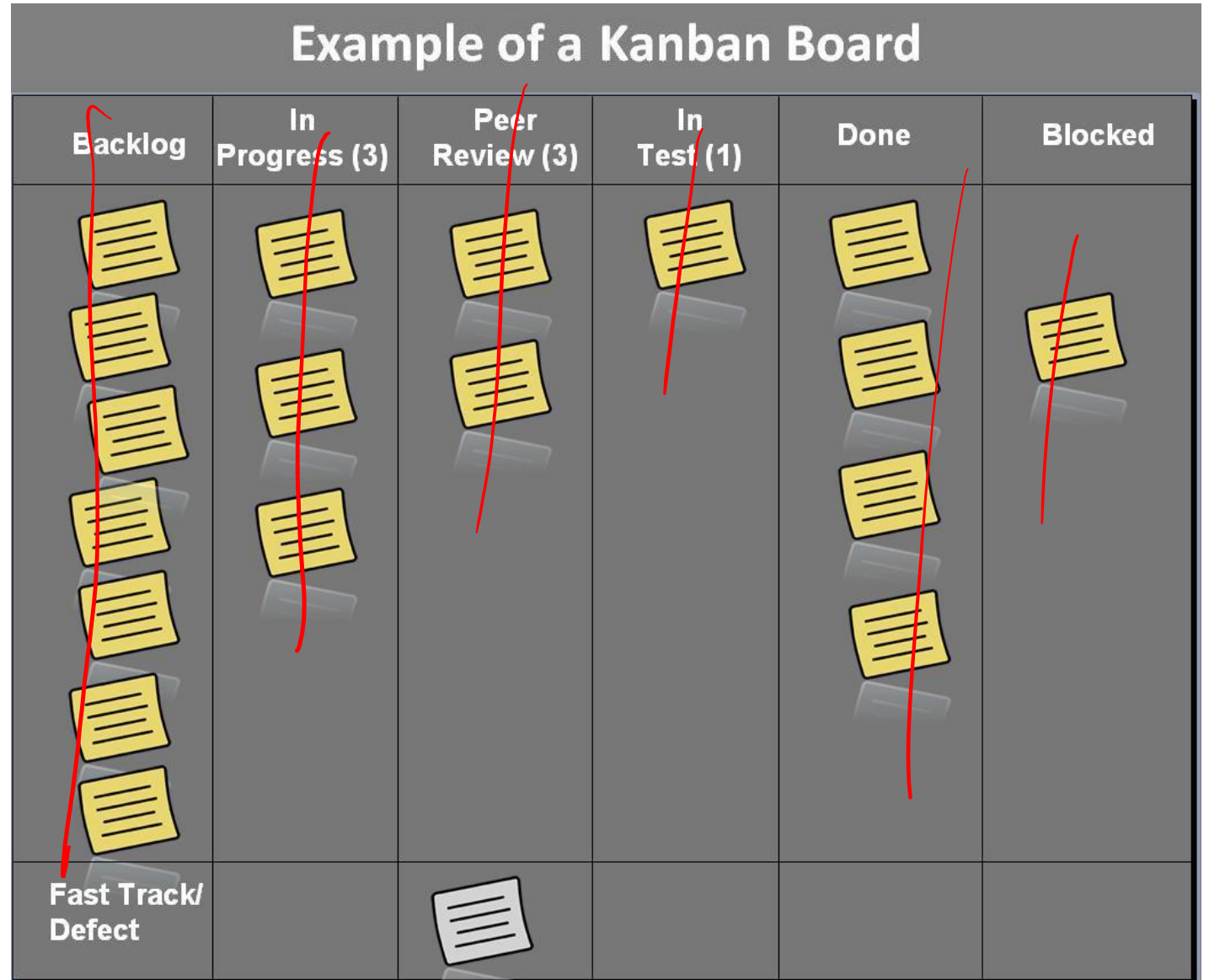
Yet whilst we think of work in tree structures (with n dimensions), we represent work in 1 – few dimensions only

Let's look at 1 dimensional work representation...

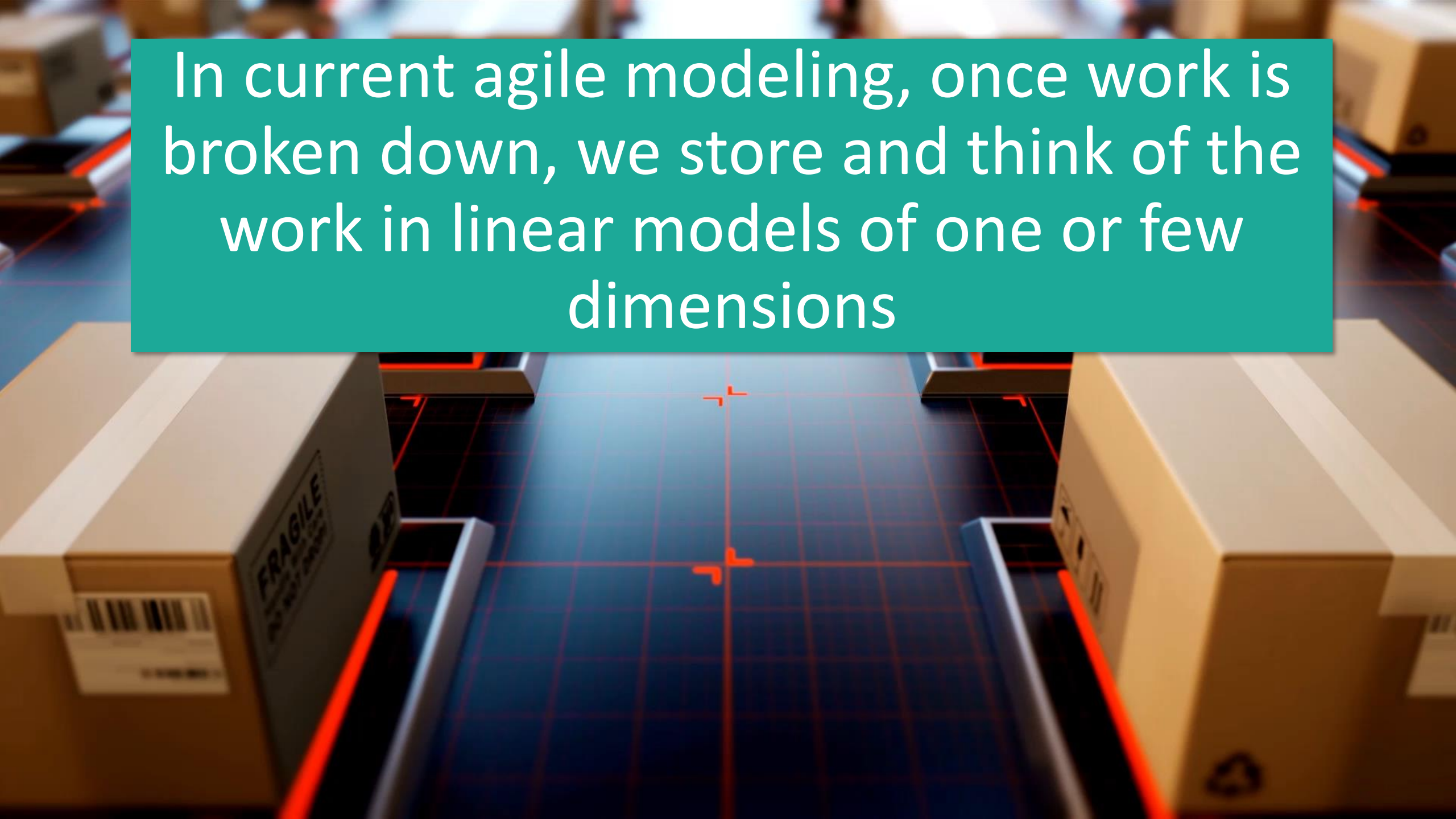
Scrum taught us to represent and think of work in one dimension – the prioritized backlog...

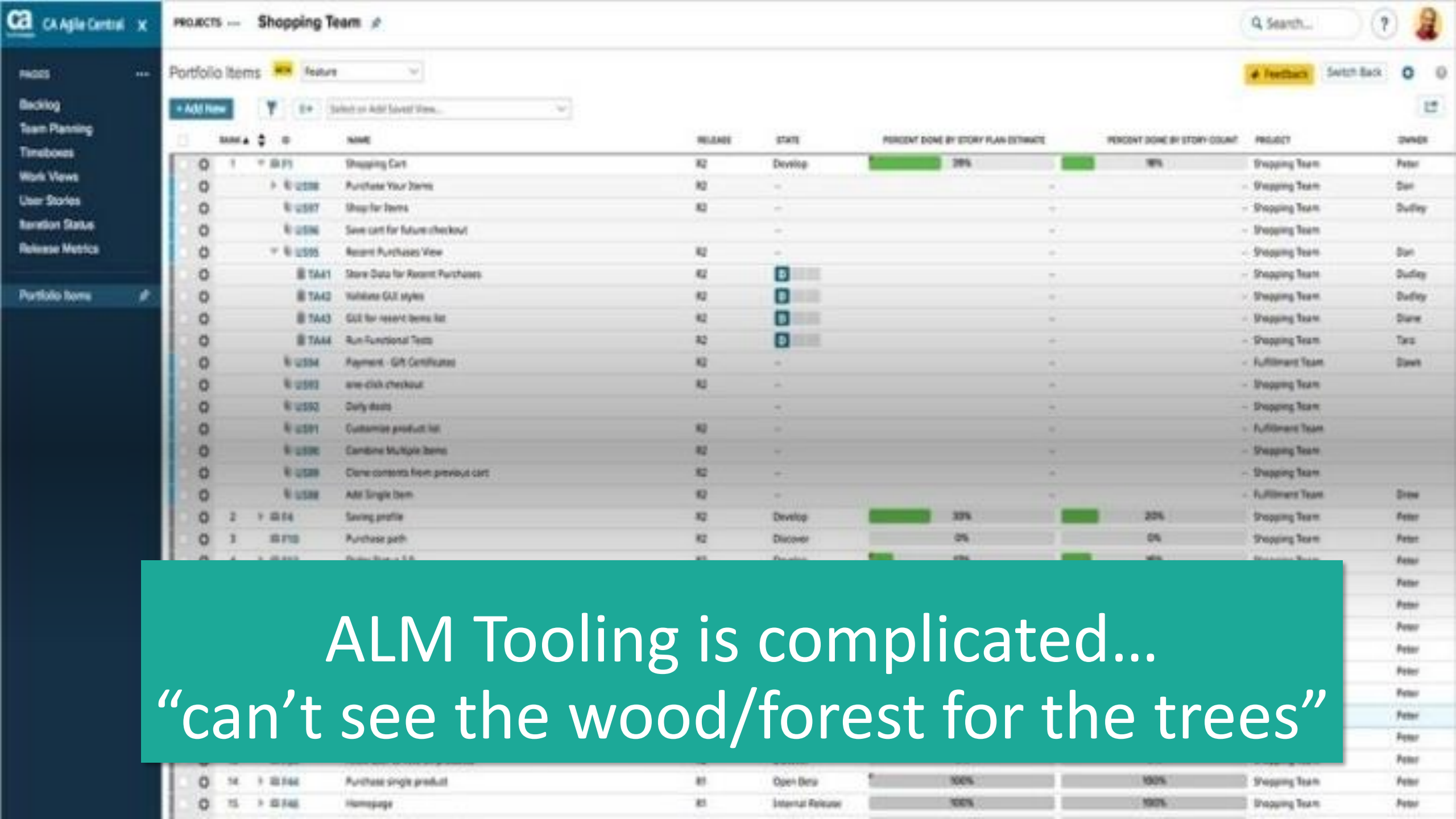


Kanban is a series of one-dimensional representations of work



In current agile modeling, once work is broken down, we store and think of the work in linear models of one or few dimensions





Portfolio Items feature

Feedback Switch Back

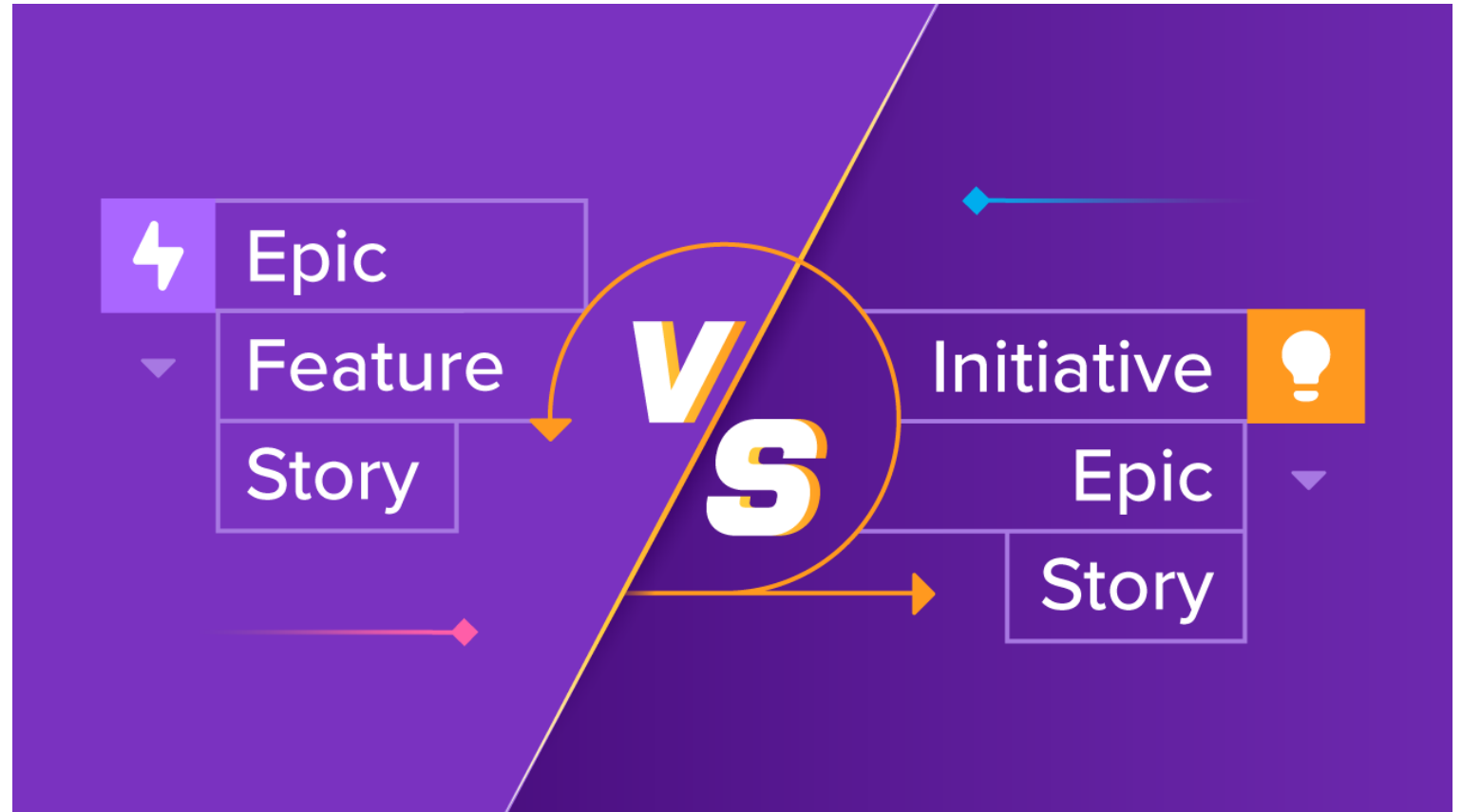
+ Add New Select or Add Saved Item...

NAME	NAME	RELEASE	STATE	PERCENT DONE BY STORY PLAN ESTIMATE	PERCENT DONE BY STORY COUNT	PROJECT	OWNER
1	Shopping Cart	R2	Develop	20%	10%	Shopping Team	Peter
	Purchase Your Items	R2	-	-	-	Shopping Team	Dan
	Shop for Items	R2	-	-	-	Shopping Team	Duffy
	Save cart for future checkout	-	-	-	-	Shopping Team	-
	Recent Purchases View	R2	-	-	-	Shopping Team	Dan
	Store Data for Recent Purchases	R2	D	-	-	Shopping Team	Duffy
	Validate GUI styles	R2	D	-	-	Shopping Team	Duffy
	GUI for recent items list	R2	D	-	-	Shopping Team	Dane
	Run Functional Tests	R2	D	-	-	Shopping Team	Tara
	Payment - Gift Certificates	R2	-	-	-	Fulfillment Team	Dawn
	one-click checkout	R2	-	-	-	Shopping Team	-
	Daily deals	-	-	-	-	Shopping Team	-
	Customize product list	R2	-	-	-	Fulfillment Team	-
	Combine Multiple Items	R2	-	-	-	Shopping Team	-
	Clone contents from previous cart	R2	-	-	-	Shopping Team	-
	Add Single Item	R2	-	-	-	Fulfillment Team	Drew
2	Saving profile	R2	Develop	30%	20%	Shopping Team	Peter
3	Purchase path	R2	Discover	0%	0%	Shopping Team	Peter
4	...	R2	Discover	0%	0%	Shopping Team	Peter

ALM Tooling is complicated...
“can’t see the wood/forest for the trees”

14	Purchase single product	R1	Open Dev	100%	100%	Shopping Team	Peter
15	Homepage	R1	Internal Release	100%	100%	Shopping Team	Peter

Confusion
around agile
naming
conventions
doesn't help...



CA Agile Central X

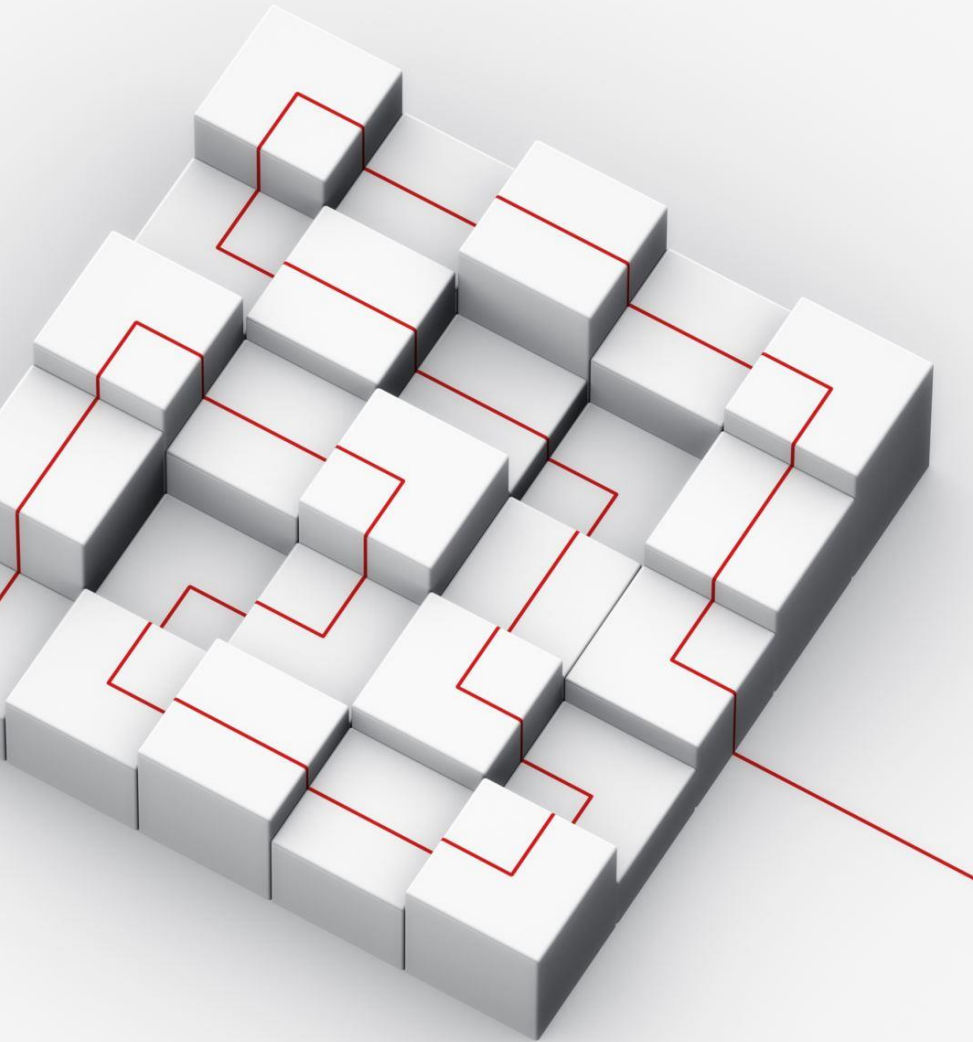
PROJECTS --- Shopping Team

Portfolio Items feature

+ Add New Select or Add Saved View...

NAME	RELEASE	STATE	PERCENT DONE BY STORY PLAN ESTIMATE	PERCENT DONE BY STORY COUNT	PROJECT	OWNER
1 2275 Shopping Cart	R2	Develop	28%	18%	Shopping Team	Peter
2 2238 Purchase Your Items	R2	-	-	-	Shopping Team	Dan
3 2287 Shop for Items	R2	-	-	-	Shopping Team	Duffy
4 2296 Save cart for future checkout	-	-	-	-	Shopping Team	-
5 2295 Recent Purchases View	R2	-	-	-	Shopping Team	Dan
6 TA41 Store Data for Recent Purchases	R2	D	-	-	Shopping Team	Duffy
7 TA42 Validate GUI styles	R2	D	-	-	Shopping Team	Duffy
8 TA43 GUI for recent items list	R2	D	-	-	Shopping Team	Dane
9 TA44 Run Functional Tests	R2	D	-	-	Shopping Team	Tara
10 2294 Payment - Gift Certificates	R2	-	-	-	Fulfillment Team	Dawn
11 2293 one-click checkout	R2	-	-	-	Shopping Team	-
12 2292 Daily deals	-	-	-	-	Shopping Team	-
13 2291 Customize product list	R2	-	-	-	Fulfillment Team	-
14 2290 Combine Multiple Items	R2	-	-	-	Shopping Team	-
15 2246 Purchase single product	R1	Open Beta	100%	100%	Shopping Team	Peter
16 2246 Homepage	R1	Internal Release	100%	100%	Shopping Team	Peter

ALM tools can result in the tail wagging the dog – when the way we think, and work is dictated by the tool



Problems to fix:

- Scrum and Kanban represent work single dimensions
- ALM tooling represents work in a very complicated way
- ALM tooling can dictate your process
- Agile naming is confusing and inconsistent for work items

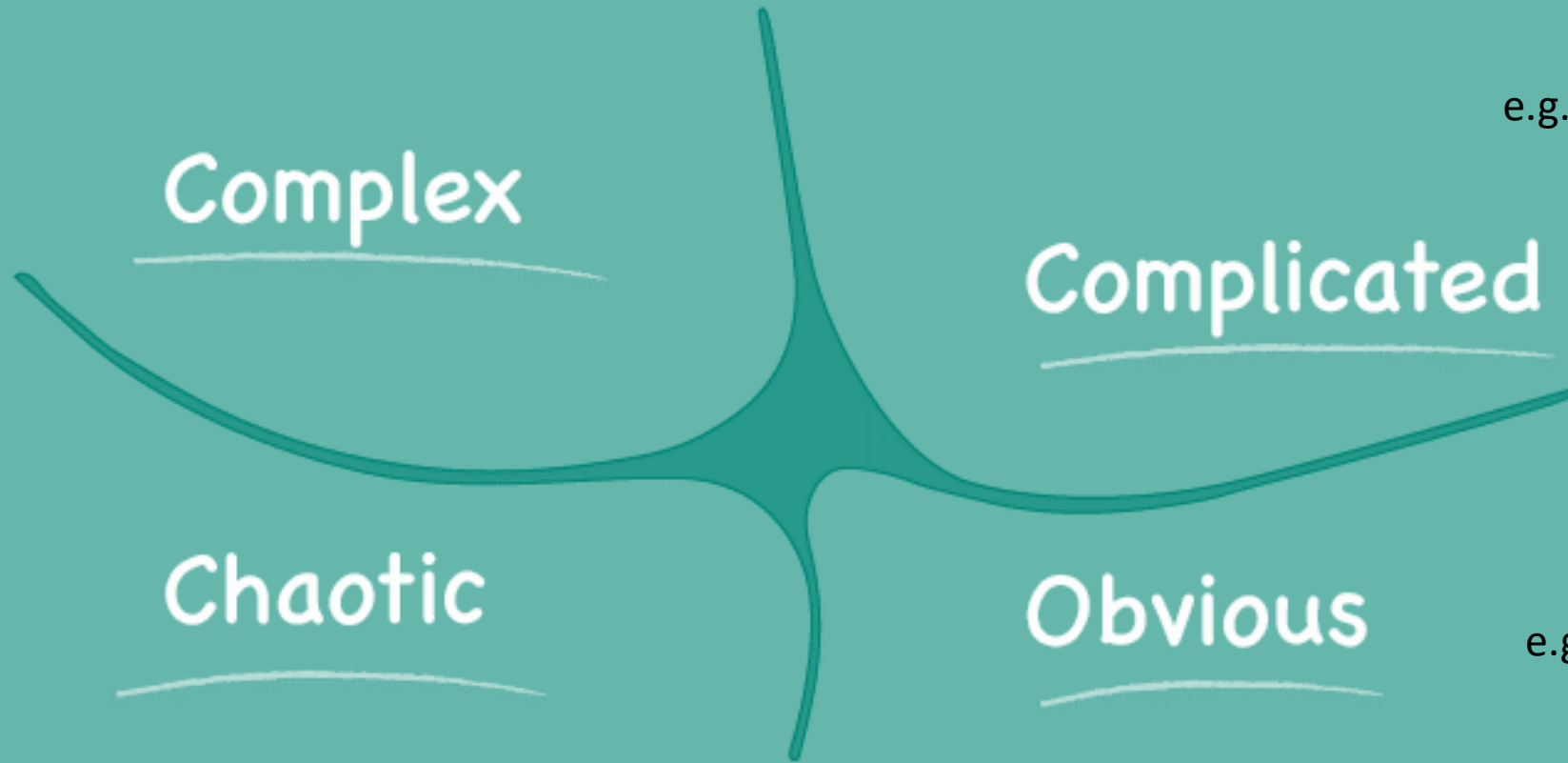
What we need is a better way to represent complexity...

But first – let's make sure we all understand complex vs complicated...

Complex vs Complicated

Cynefin Model

Cynefin Model (Dave Snowden)



e.g.

$$\begin{aligned}
 & W \left[\frac{\xi}{\alpha} \left(\frac{\partial f}{\partial t} - \beta' \frac{\partial f}{\partial r} \right) + \frac{v}{\phi^2} \frac{\partial f}{\partial r} \right] - \frac{\varepsilon W^3}{r \alpha \phi^3} \frac{\partial f}{\partial t} \\
 & \times \left[\beta' \phi^2 \left(-\psi - r \mu \frac{\partial v}{\partial r} \right) + v^2 \phi \left[\beta' \phi \left(2r \frac{\partial \phi}{\partial r} - \psi \phi \right) \right. \right. \\
 & \left. \left. + r \left(-\mu \frac{\partial \alpha}{\partial r} + \mu^2 \phi^2 \frac{\partial \beta'}{\partial r} - \frac{\partial \phi^2}{\partial r} \right) \right] \right. \\
 & \left. + v^2 \left[r \mu \phi \left(-\mu \frac{\partial \alpha}{\partial r} + \frac{\partial \beta' \phi^2}{\partial r} - \frac{\partial \phi^2}{\partial t} \right) - \psi \frac{\alpha}{\phi} \frac{\partial r \phi^2}{\partial r} \right] \right. \\
 & \left. + \phi \left[r \mu \left(\mu \alpha \frac{\partial v}{\partial r} + \frac{\partial \alpha}{\partial r} + \phi^2 \left(-\mu \frac{\partial \beta'}{\partial r} + \frac{\partial v}{\partial t} \right) \right) \right. \right. \\
 & \left. \left. + r \frac{\partial \phi^2}{\partial t} - r \beta' \frac{\partial \phi^2}{\partial r} \right] + v_r \alpha \left[\phi \left(\psi + r \mu \frac{\partial v}{\partial r} \right) \right. \right. \\
 & \left. \left. + 2r \psi \frac{\partial \phi}{\partial r} + \phi^2 \left(\mu \frac{\partial v}{\partial r} - \frac{\partial \beta'}{\partial r} \right) + \frac{\partial \phi^2}{\partial t} \right] \right. \\
 & \left. + \frac{W^3 (1 - \mu^2)}{r \alpha \phi^3} \frac{\partial f}{\partial t} \left[\alpha \left[\phi \left(\frac{\xi}{W^2} - r \mu \frac{\partial v}{\partial r} \right) + 2r \frac{\xi}{W^2} \frac{\partial \phi}{\partial r} \right] \right. \right. \\
 & \left. \left. + \phi \left[\beta' \phi^2 \left(r \xi \frac{\partial v}{\partial r} - \frac{v}{W^2} \right) - \frac{r}{W^2} \left(\xi \frac{\partial \alpha}{\partial r} - v \phi^2 \frac{\partial \beta'}{\partial r} \right) \right. \right. \right. \\
 & \left. \left. \left. - r \xi \phi^2 \frac{\partial v}{\partial t} \right] \right] = \mathcal{C}[f]. \tag{26}
 \end{aligned}$$

e.g. $a + b = c$

Complex

- Non-causal
- Non-deterministic
- Might not be reducible
- Emergent & responsive
- Pattern is predictable but exact outcome isn't

Examples:

Human Body, Weather

Complicated

- Causal - Cause and effect is known
- Deterministic (same as above)
- Reducible
- Completely defined
- Finite dimensions
- Predictable

Examples:

Car Engine, Tax Code

Let's Play Complex vs Complicated



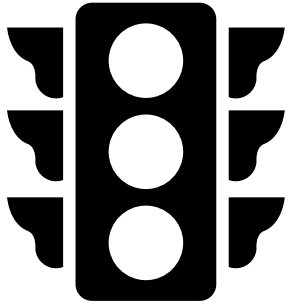




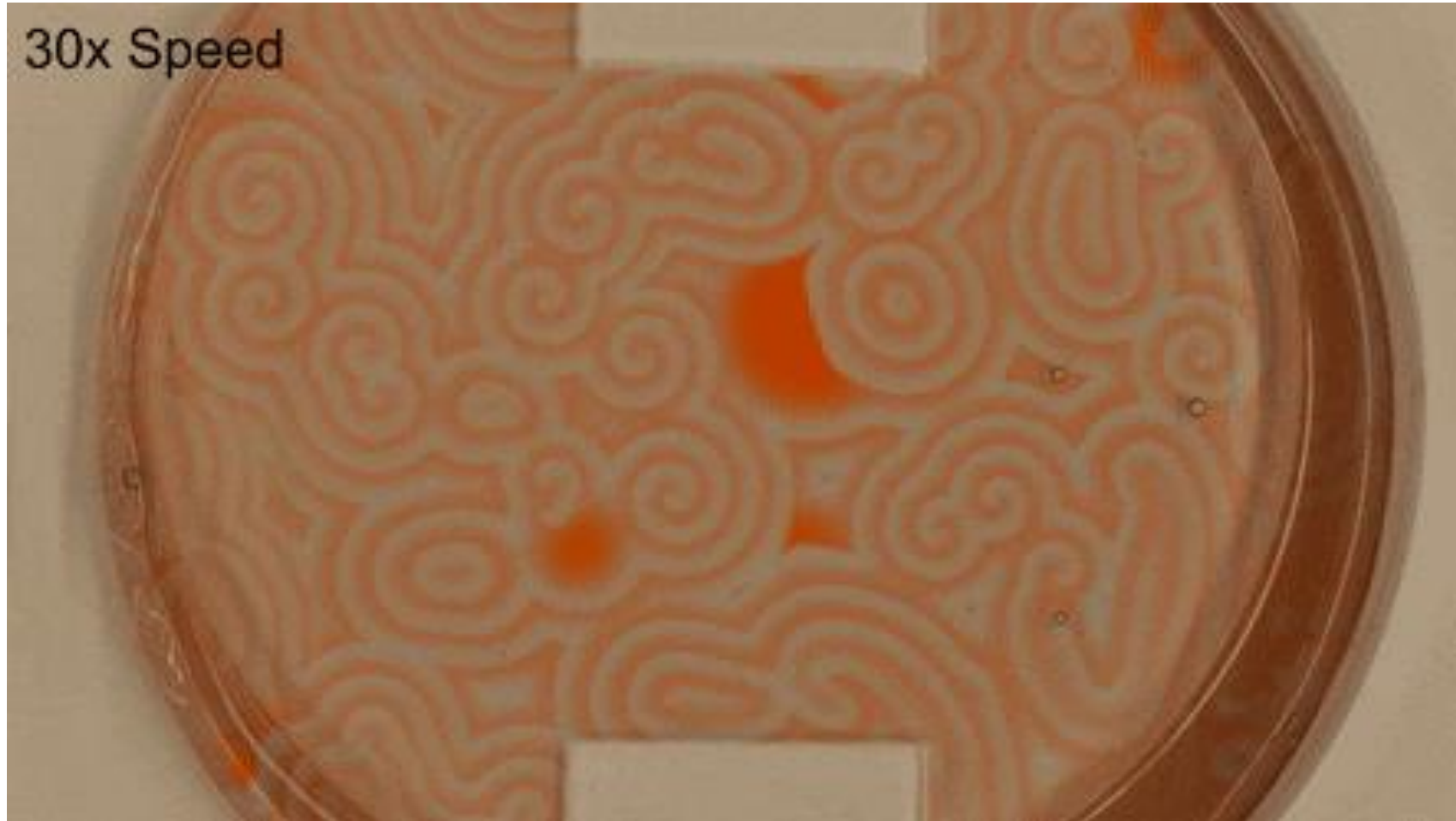


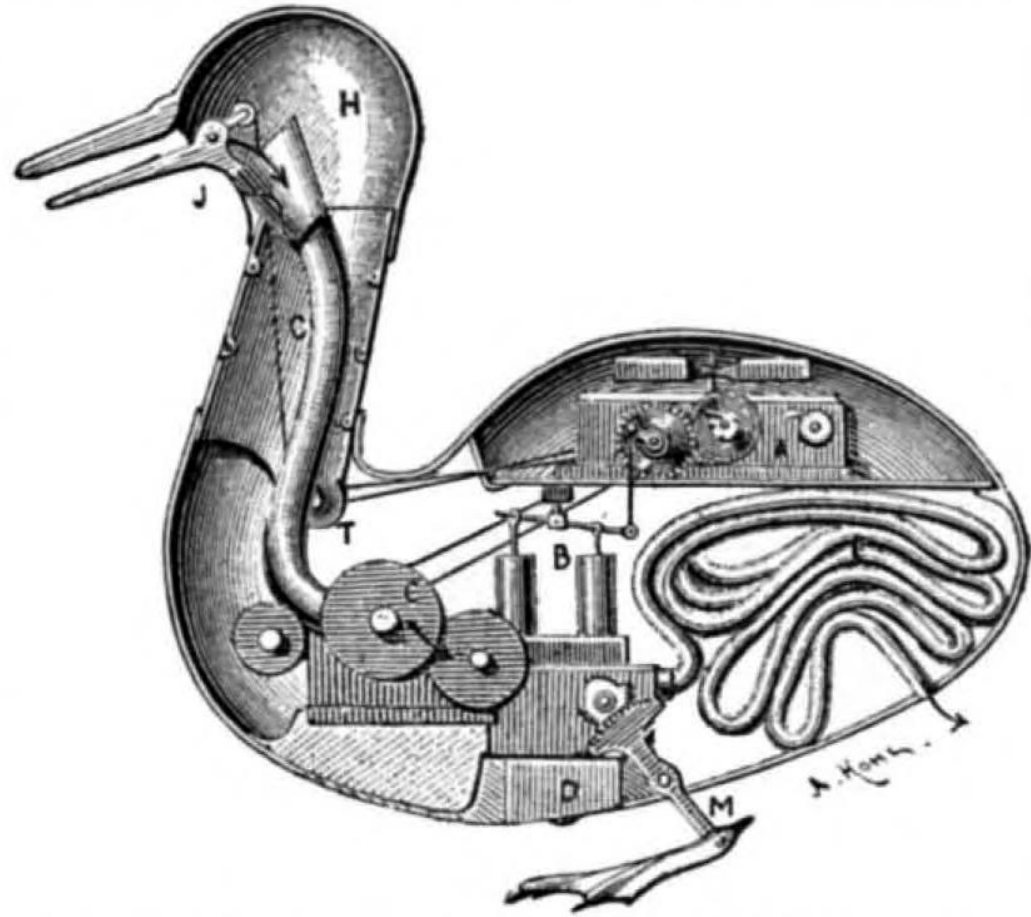






Belousov-Zhabotinsky Reaction





INTERIOR OF VAUCANSON'S AUTOMATIC DUCK.

A, clockwork; *B*, pump; *C*, mill for grinding grain; *F*, intestinal tube;
J, bill; *H*, head; *M*, feet.

Chladni Plate





T+ 00:08:30

STAGE 2 TELEMETRY

SPEED

ALTITUDE

18384

km/h

226

km

UPCOMING

SECS

STAGE 1 LANDING

THE FIRST STAGE OF FALCON 9 IS ATTEMPTING AN EXPERIMENTAL LANDING ON THE AUTONOMOUS SPACEPORT DRONE SHIP

LAUNCH: CRS-8

ENGINE CHILL

FALCON INTERNAL POWER

STARTUP

MAX-Q

S2 STARTUP

EXPERIMENTAL LANDING

DRAGON DEPLOY

DRAGON INTERNAL POWER

STRONGBACK

LIFTOFF

MECO

BOOSTBACK BURN

SECS

SPACEX



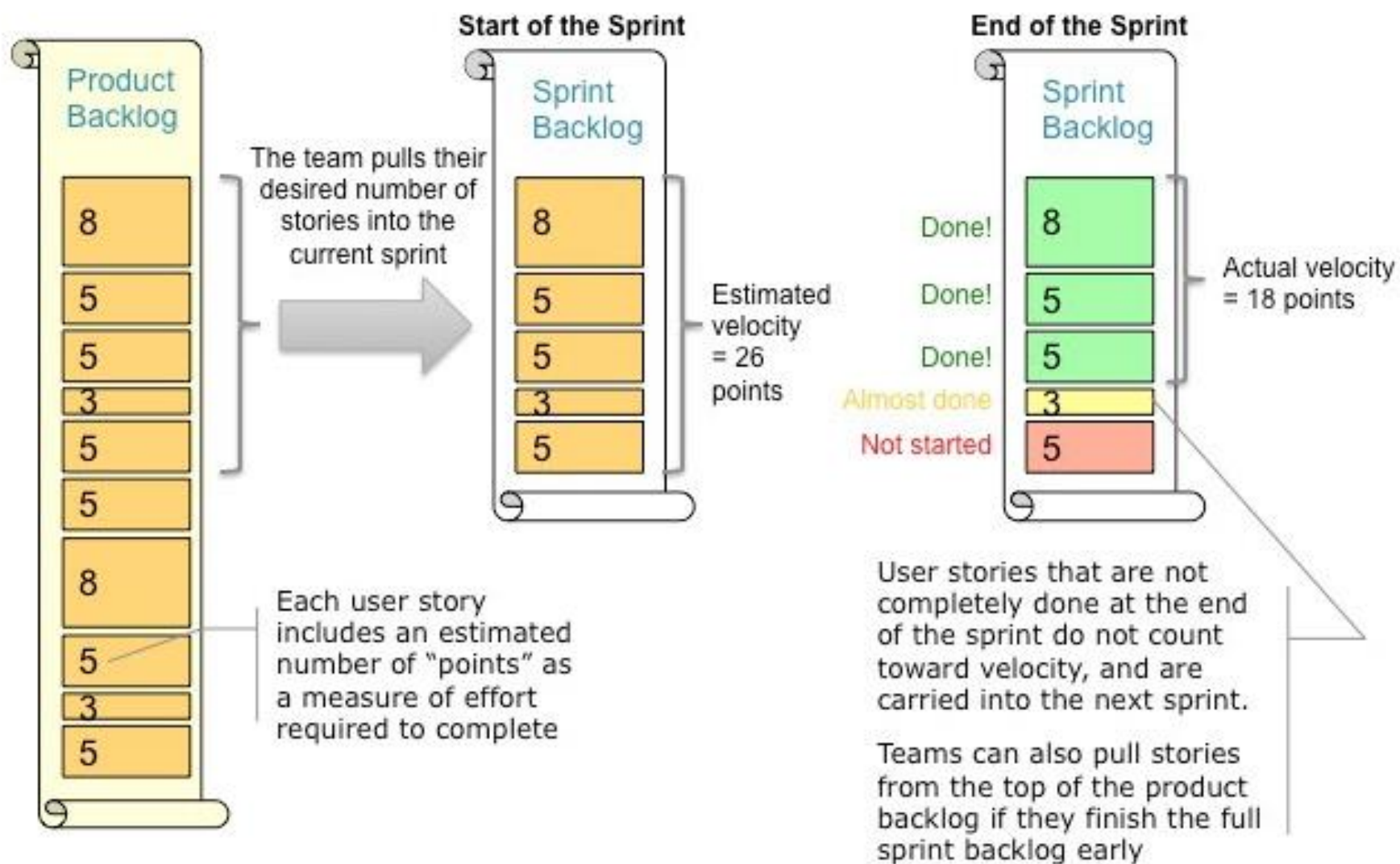
- Home
- Backlog
- Team Planning
- Timeboxes
- Work Views
- User Stories
- Iteration Status
- Release Metrics
- Portfolio Items

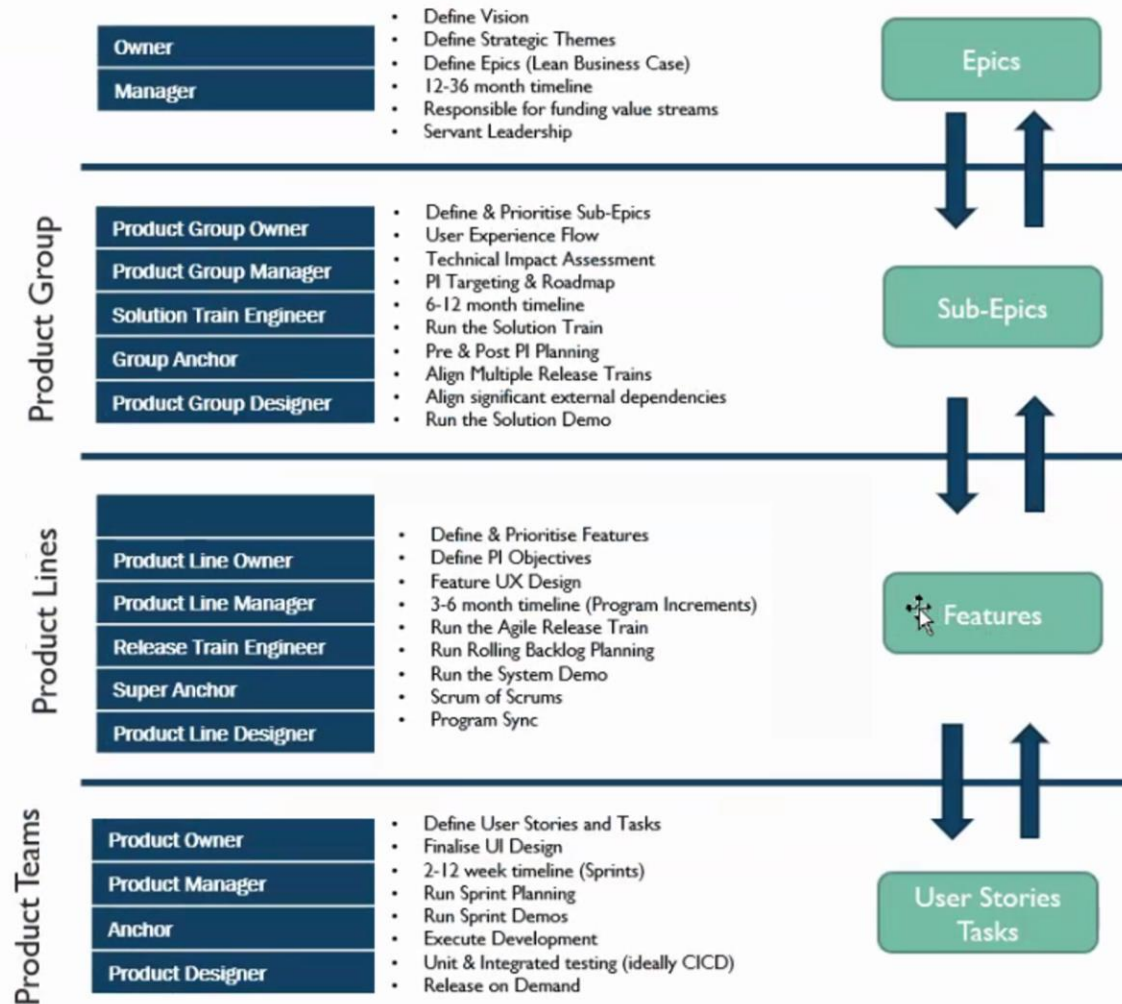
Portfolio Items Feature

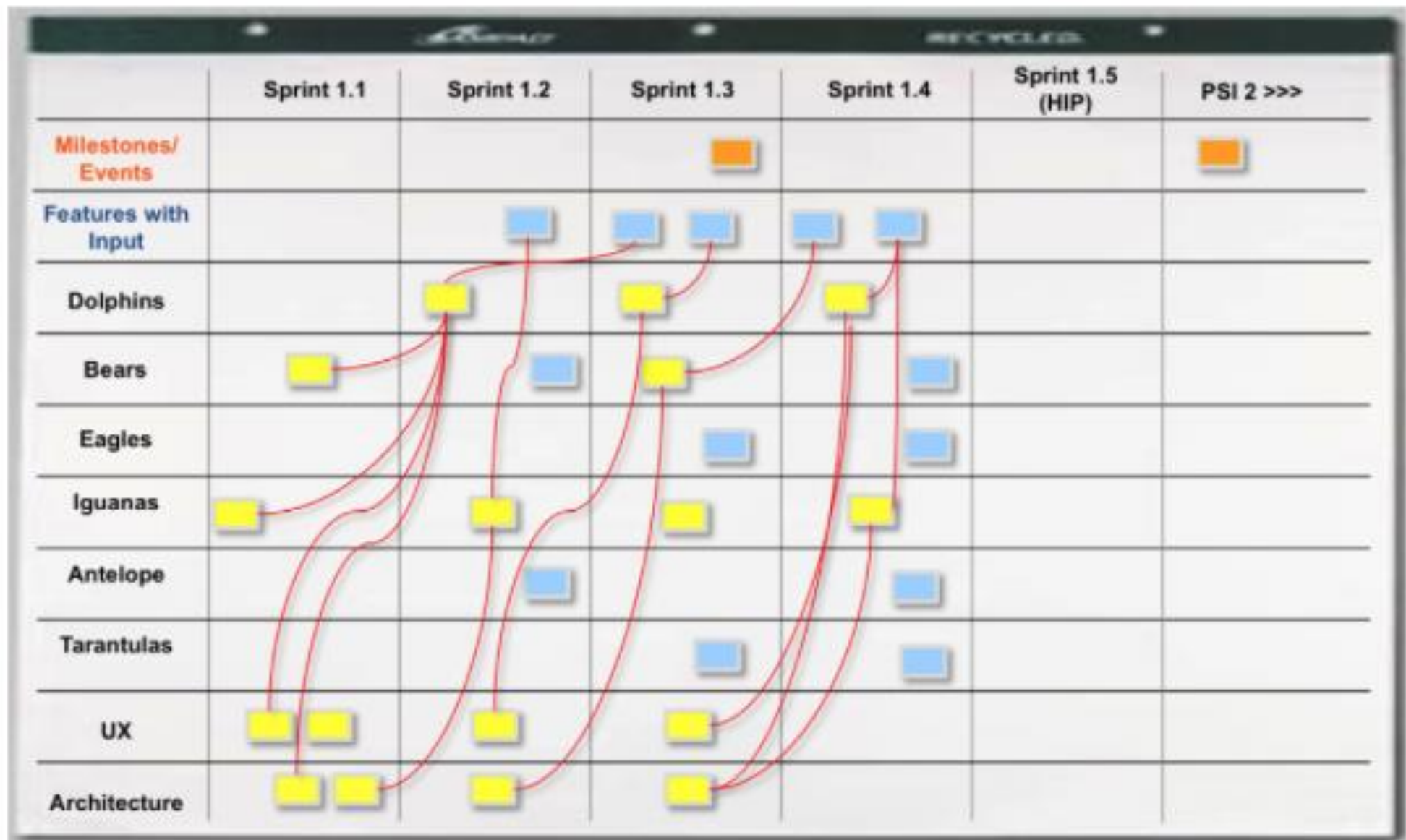
Feedback [Switch Back](#)

+ Add New Select or Add Saved View...

	NAME	RELEASE	STATE	PERCENT DONE BY STORY PLAN ESTIMATE	PERCENT DONE BY STORY COUNT	PROJECT	OWNER
1	Shopping Cart	R2	Develop	<div style="width: 20%; background-color: #0070c0;"></div> 20%	<div style="width: 10%; background-color: #0070c0;"></div> 10%	Shopping Team	Peter
	↳ U238 Purchase Your Items	R2	-	-	-	Shopping Team	Dan
	↳ U237 Shop for Items	R2	-	-	-	Shopping Team	Duffy
	↳ U236 Save cart for future checkout		-	-	-	Shopping Team	
	↳ U235 Recent Purchases View	R2	-	-	-	Shopping Team	Dan
	↳ TA41 Store Data for Recent Purchases	R2	<div style="width: 0%; background-color: #0070c0;"></div>	-	-	Shopping Team	Duffy
	↳ TA42 Validate GUI styles	R2	<div style="width: 0%; background-color: #0070c0;"></div>	-	-	Shopping Team	Duffy
	↳ TA43 GUI for recent items list	R2	<div style="width: 0%; background-color: #0070c0;"></div>	-	-	Shopping Team	Dane
	↳ TA44 Run Functional Tests	R2	<div style="width: 0%; background-color: #0070c0;"></div>	-	-	Shopping Team	Tara
	↳ U234 Payment - GH Certified	R2	-	-	-	Fulfillment Team	Dawn
	↳ U233 one-click checkout	R2	-	-	-	Shopping Team	
	↳ U232 Daily deals		-	-	-	Shopping Team	
	↳ U231 Customise product list	R2	-	-	-	Fulfillment Team	
	↳ U230 Combine Multiple Items	R2	-	-	-	Shopping Team	
	↳ U229 Clone contents from previous cart	R2	-	-	-	Shopping Team	
	↳ U228 Add Single Item	R2	-	-	-	Fulfillment Team	Drew
2	Saving profile	R2	Develop	<div style="width: 30%; background-color: #0070c0;"></div> 30%	<div style="width: 20%; background-color: #0070c0;"></div> 20%	Shopping Team	Peter
3	Purchase path	R2	Discover	<div style="width: 0%; background-color: #0070c0;"></div> 0%	<div style="width: 0%; background-color: #0070c0;"></div> 0%	Shopping Team	Peter
4	Order Status 2.0	R2	Develop	<div style="width: 10%; background-color: #0070c0;"></div> 10%	<div style="width: 10%; background-color: #0070c0;"></div> 10%	Shopping Team	Peter
5	Creation of cart	R2	Develop	<div style="width: 10%; background-color: #0070c0;"></div> 10%	<div style="width: 10%; background-color: #0070c0;"></div> 10%	Shopping Team	Peter
6	Special Offers	R2	Develop	<div style="width: 0%; background-color: #0070c0;"></div> 0%	<div style="width: 0%; background-color: #0070c0;"></div> 0%	Shopping Team	Peter
7	User Profile	R3	Discover	<div style="width: 0%; background-color: #0070c0;"></div> 0%	<div style="width: 0%; background-color: #0070c0;"></div> 0%	Shopping Team	Peter
8	Product Listings	R3	Propose	<div style="width: 0%; background-color: #0070c0;"></div> 0%	<div style="width: 0%; background-color: #0070c0;"></div> 0%	Shopping Team	Peter
9	Shipping preferences	R2	Develop	<div style="width: 20%; background-color: #0070c0;"></div> 20%	<div style="width: 20%; background-color: #0070c0;"></div> 20%	Shopping Team	Peter
10	Provides link to twitter so users can tweet about products they are researching	R2	Discover	<div style="width: 0%; background-color: #0070c0;"></div> 0%	<div style="width: 0%; background-color: #0070c0;"></div> 0%	Shopping Team	Peter
11	Suggest products purchased by friends	R2	Discover	<div style="width: 0%; background-color: #0070c0;"></div> 0%	<div style="width: 0%; background-color: #0070c0;"></div> 0%	Shopping Team	Peter
12	Cross-sell related products	R2	Propose	<div style="width: 0%; background-color: #0070c0;"></div> 0%	<div style="width: 0%; background-color: #0070c0;"></div> 0%	Shopping Team	Peter
13	Allow user to vote on products	R2	Discover	<div style="width: 0%; background-color: #0070c0;"></div> 0%	<div style="width: 0%; background-color: #0070c0;"></div> 0%	Shopping Team	Peter
14	Purchase single product	R1	Open Beta	<div style="width: 100%; background-color: #0070c0;"></div> 100%	<div style="width: 100%; background-color: #0070c0;"></div> 100%	Shopping Team	Peter
15	Homepage	R1	Internal Release	<div style="width: 100%; background-color: #0070c0;"></div> 100%	<div style="width: 100%; background-color: #0070c0;"></div> 100%	Shopping Team	Peter







Blue = Features

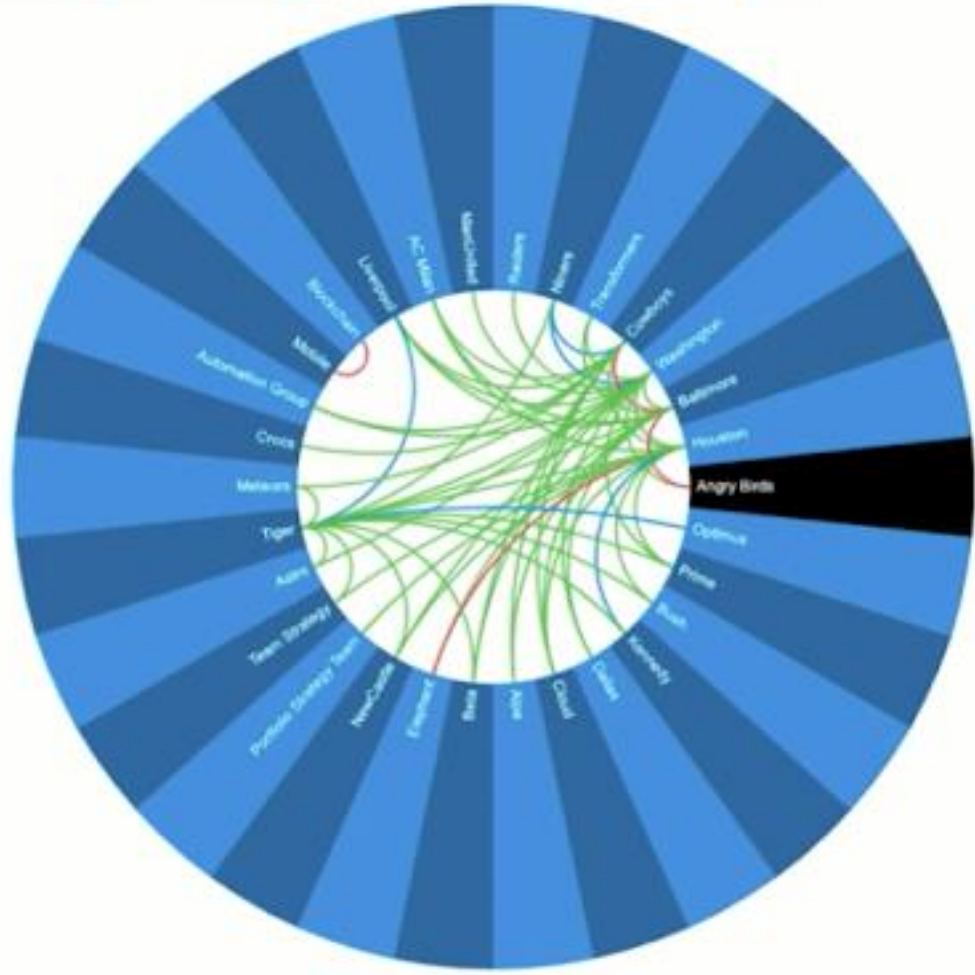
Yellow = Feature Input

Orange = Milestone/ Event

Red String = A dependency requiring a feature input to be completed before a feature can be completed

← Dependency Maps

- ▶ Epic
- ▶ Initiative
- ▶ Capability
- Show Only Associated
- Show Inactive



Business Agility

Measure & Grow

Organizational Agility

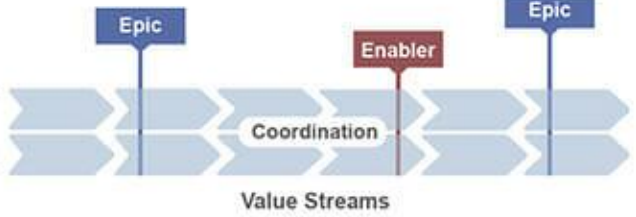


Enterprise Government

Lean Portfolio Management



Epic Owners Enterprise Architect



PORTFOLIO KPIs



Enterprise Solution Delivery



LARGE SOLUTION



Agile Product Delivery



Business Owners



Customer Centricity



Design Thinking



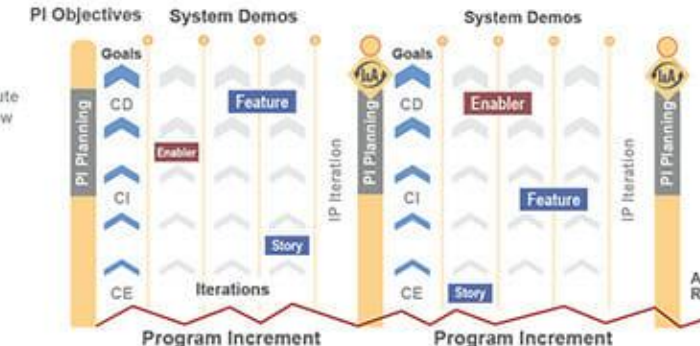
ESSENTIAL



Team and Technical Agility



Agile Teams



Continuous Learning Culture



Business | Dev | Ops | Support



5.0

Leffingwell, et al. © Scaled Agile, Inc.



1940-1950's

1960's

1970's

1980's

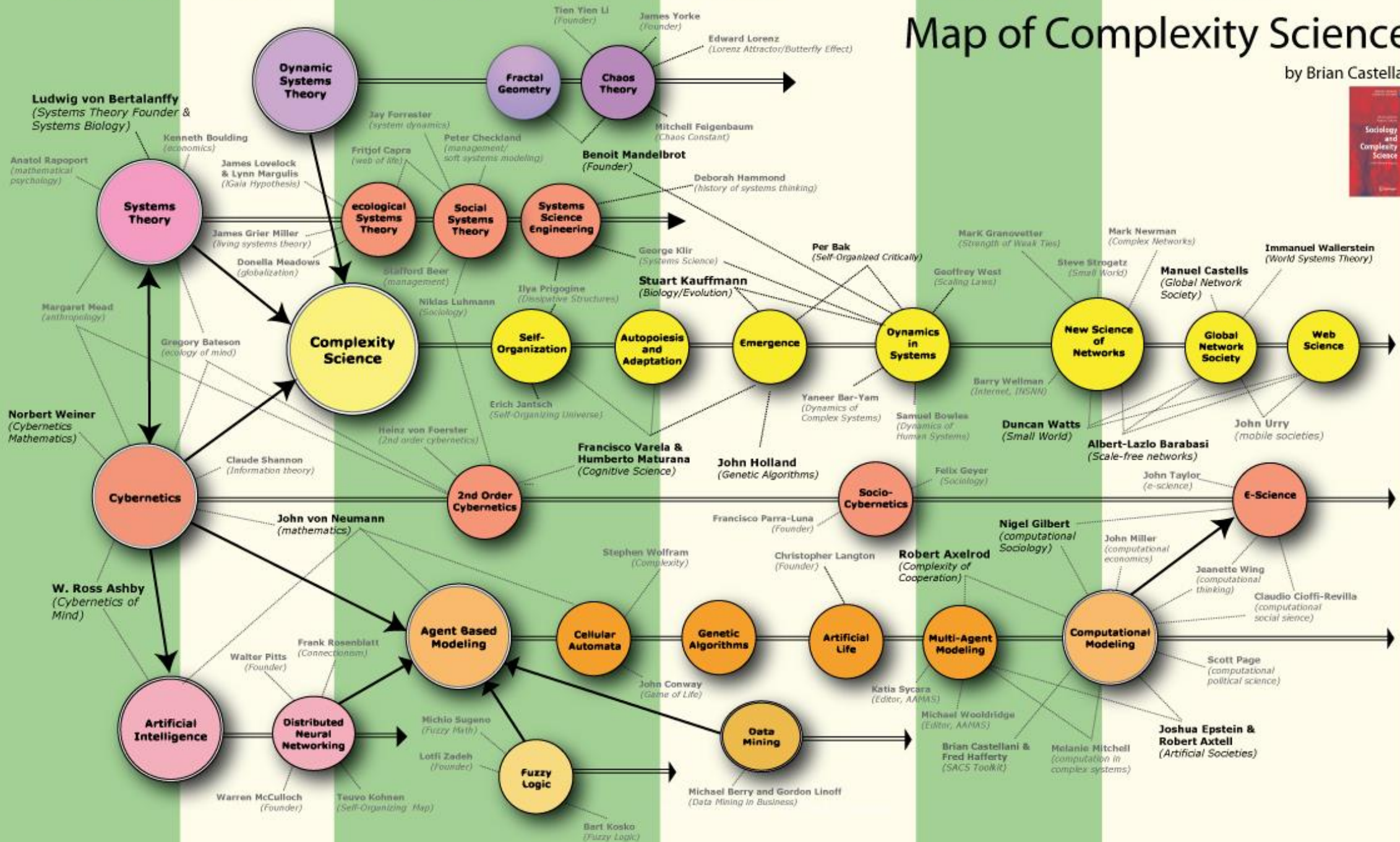
1990's

2000's

2010's

Map of Complexity Science

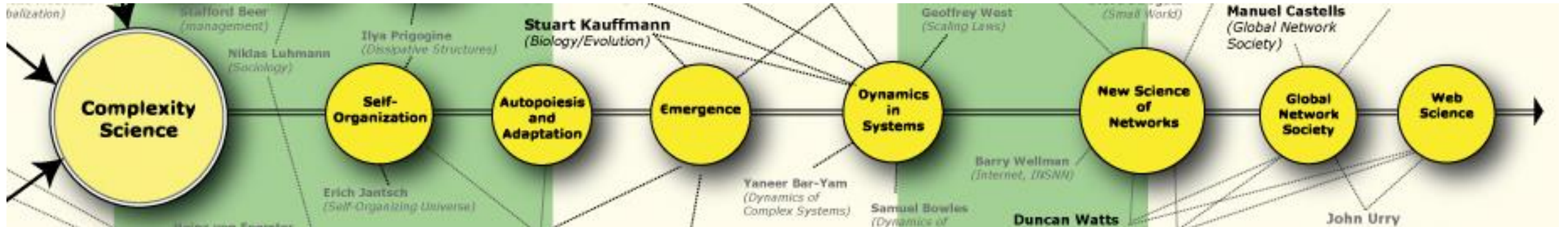
by Brian Castellani





Complexity – see words like:

- Self-Organization
- Adaptation
- Emergence
- Networks



Complex

Complicated

Software
Development

Product Discovery



Summary – Complex vs Complicated

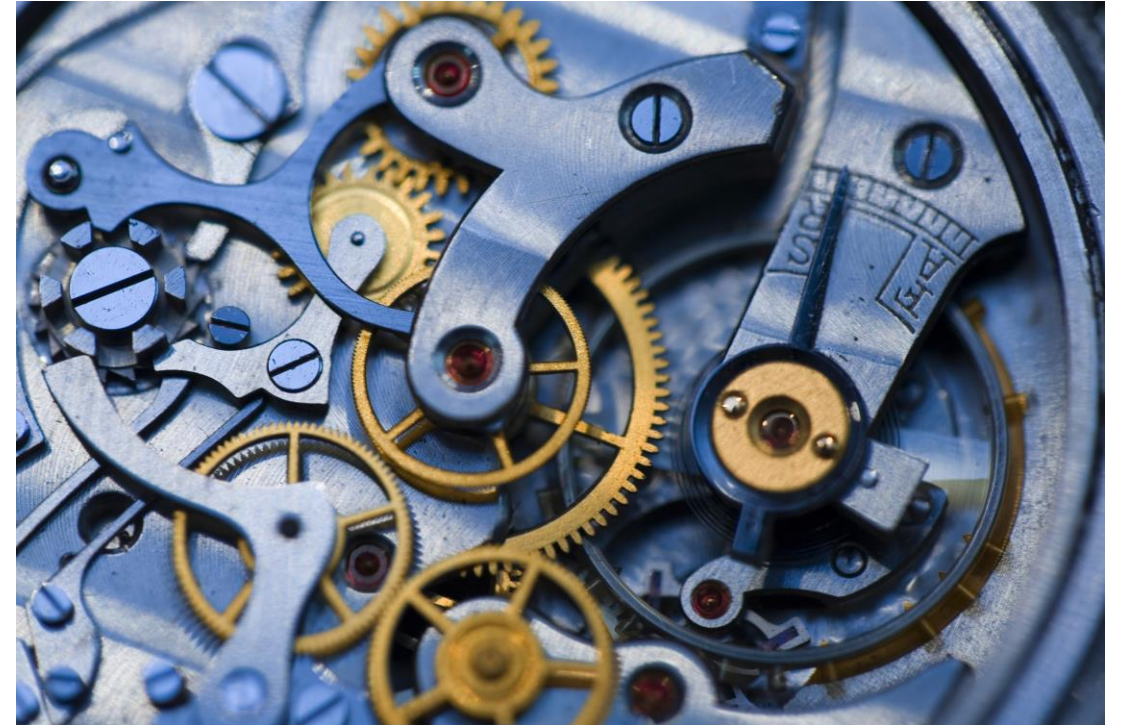
Complex

Not exactly predictable yet Ordered



Complicated

Exactly predictable and Ordered



What – what is the solution?

How can we represent complexity?

We need a way to represent complex work



Alan Cooper ✓

@MrAlanCooper

The world of software behavior is complex, multivariate, and conditional. The mind can't grasp all of the permutations without a map, a visual map, an adaptive, explanatory, exploratory, working tool of a map. Of many maps.

Representing Complexity

With Product Maps and Discovery Trees

What - Thinking Big: Product Mapping



Thinking Big – A tool for Product Managers to visualize the big picture so that the entire tribe has a context of where we are going and the context of the work items. Show progress, releases, and can be used for forecasting completion.



MICROSERVICE
MADNESS!

FAMILY DYNAMIC TRACKER

Some Special Story Types

SPIKE	RESEARCH	TRACER BULLET
A quick and dirty implementation, designed to be thrown away to gain knowledge.	Deep foundational knowledge or learning to resolve what to spike or to give the ability to someone.	Narrow implementation to production quality of an epics/long user story.
Indicator: Unable to estimate a user story effectively.	Indicator: Don't know a potential solution.	Indicator: Don't know if too long, hard to estimate.

Principles Behind The Agile Manifesto

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity—the art of maximizing the amount of work not done—is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

We started with a Story Map – but then found limitations/issues...



Story Mapping Limitations and Issues

- work items were splintering so that it was hard to represent on a single board
- it was hard to keep up with the speed as the tribe grew



Our Story Map Evolved into a Product Map : We kept only high-level items here

SECURITY

ETL

MONITORING
LOGGING

DEV OPS
CI CD

API
VERSIONING
↓
API MANAGEMENT

TESTING

RESILIANLE
FAILOVER

PROCESS
inc SDL

CERTIFY RELEASE

ETL Performance

Monitoring Alerts

SECURED DEV SANDBOX

CO-EXISTING ENDPOINTS

CONSUMER-DRIVEN CONTRACTS (PACT)

STRESS TESTING

Add Security Across Layers → SSO / IAM Data Protecting Audit, WAF

FACETS IN CLOUD

Chris Bell Splunk Data Pipe

On Prem Success

SYNTHETIC MONITORING

CIRCUIT BREAKERS
Apps degrade functionality Read: Release It!

Self Certificate - PKI for Cert
Static Code Analysis - Kat?
SD - Chris Watson
CHECKMATES - Kat?

ETL automated Tests

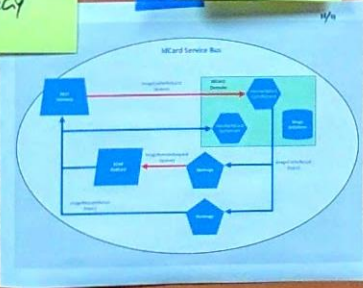
VERSIONING STRATEGY

ETL automated Tests

MESSAGE QUEUE & FAILOVER

Security Dashboard

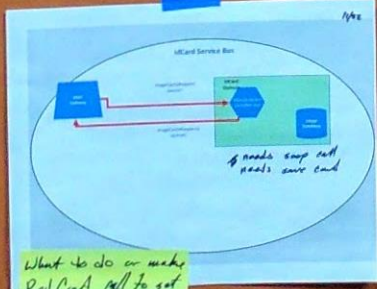
Monitoring Alerts



FAILOVER

HSM for Key vault

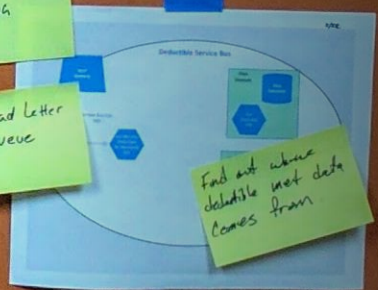
Monitoring Alerts



LOAD / PERFORMANCE TESTING

SDL mobile

Monitoring Alerts



USE non-integr identifiers

Monitoring Alerts



-only accessible

Summary of Benefits of Product Map

- Builds on story mapping
- View of the product from a Product Manager's POV
- Gives the broader and bigger picture of what we are building
- Gives context to work
- Can view quickly where we are at
- Can be used for quick forecasting
(especially if done with wisdom of the crowds forecasting method)
- Can map out releases

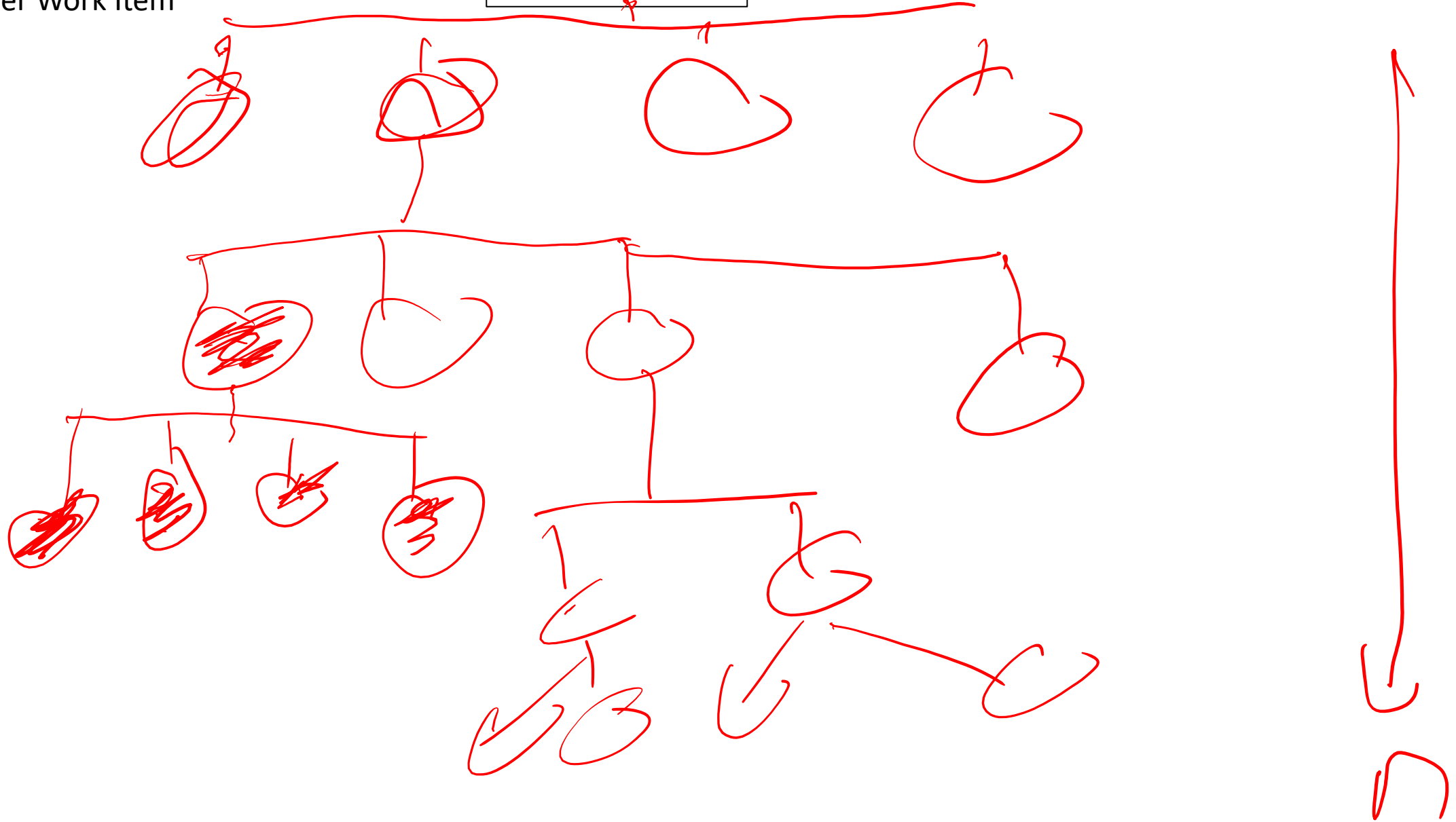
What – Working Small: Discovery Trees



Discovery Trees are mostly for devs: aid breakdown, understand work, track work, report on progress, forecast completion (optional), and maintaining context.

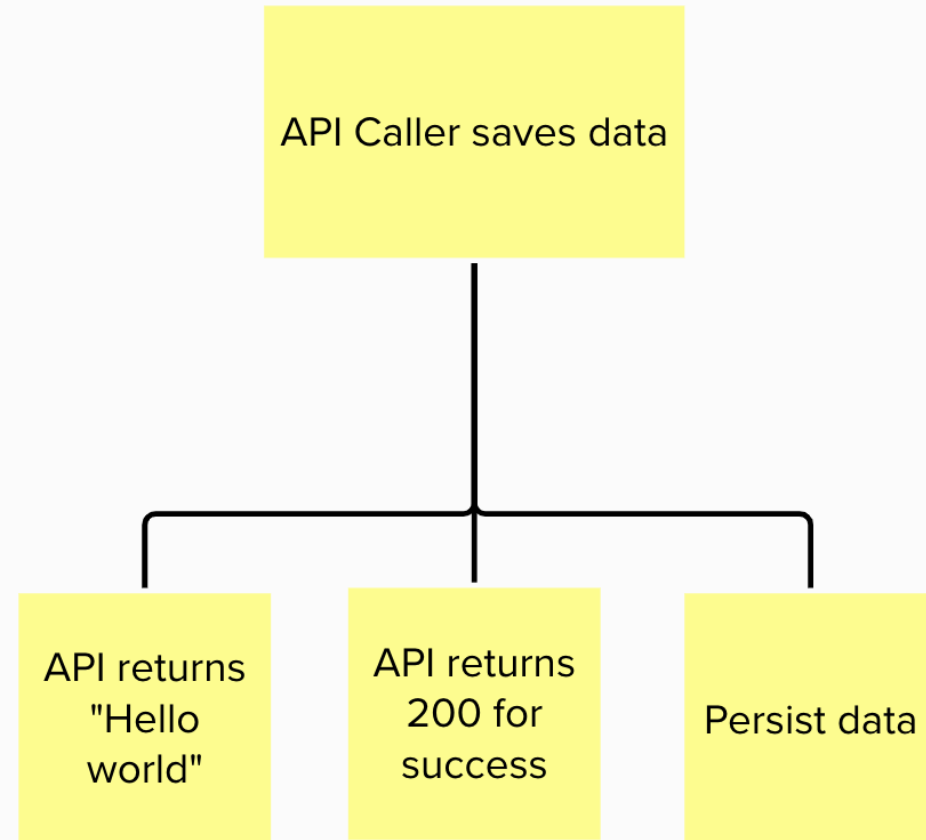
Epic, OKR, Bet, Initiative, Feature
i.e. Larger Work Item

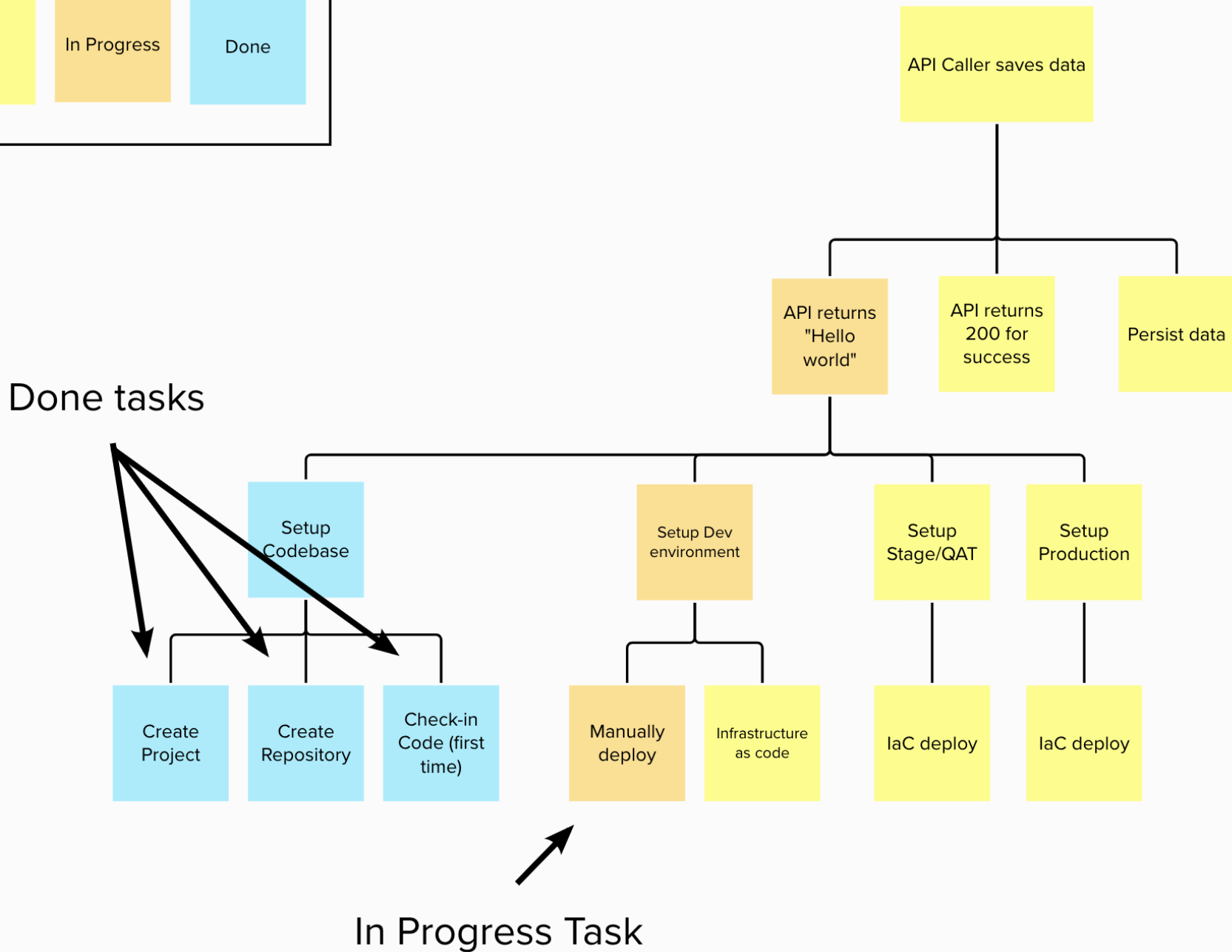
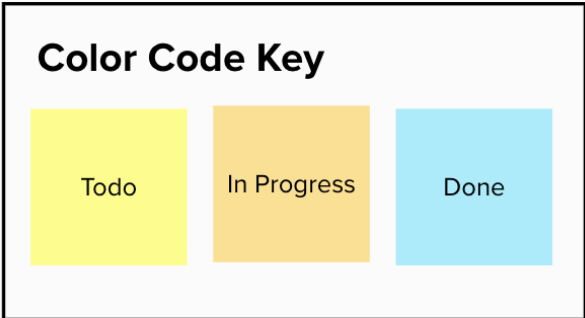
Top-level item

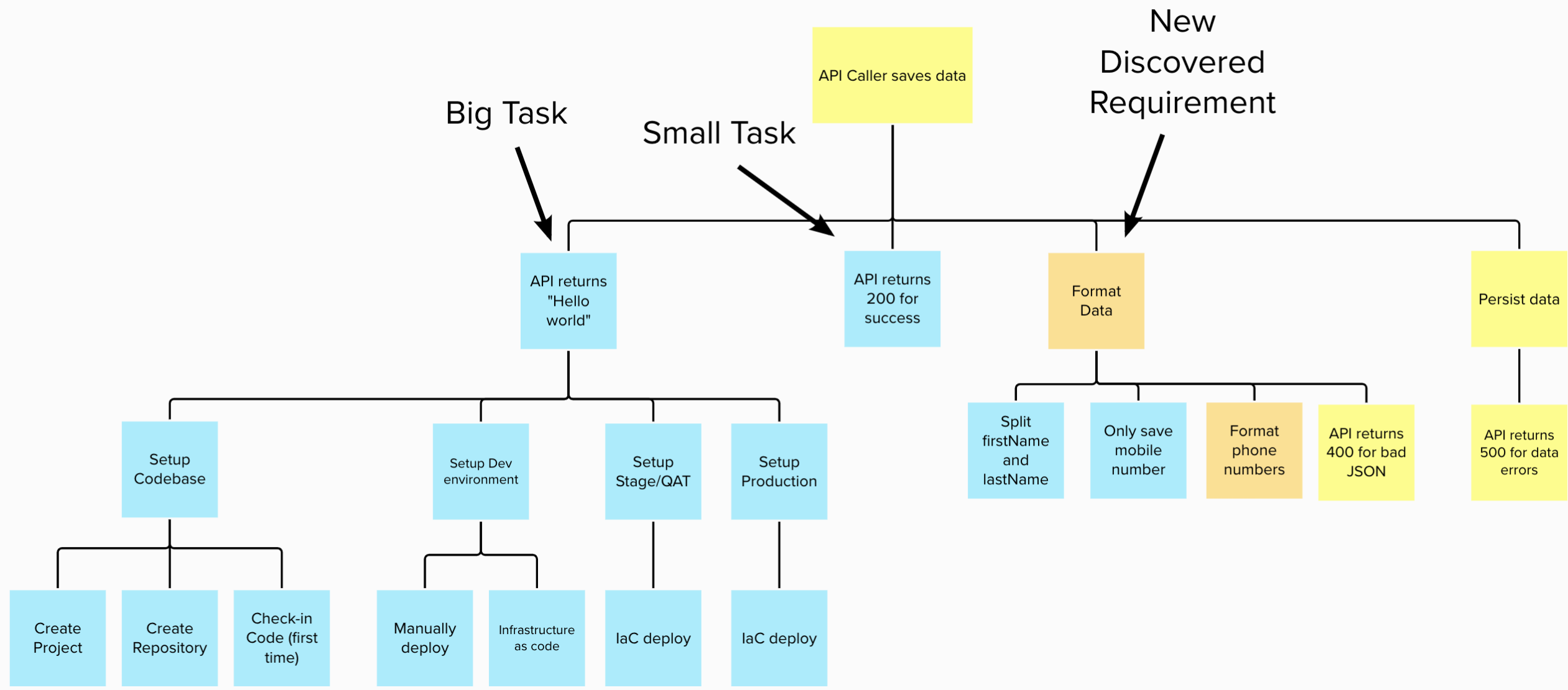


Example Discovery Tree : Delivery

Root node is a larger goal







This is why it is called a Discovery Tree...



Woody Zuill

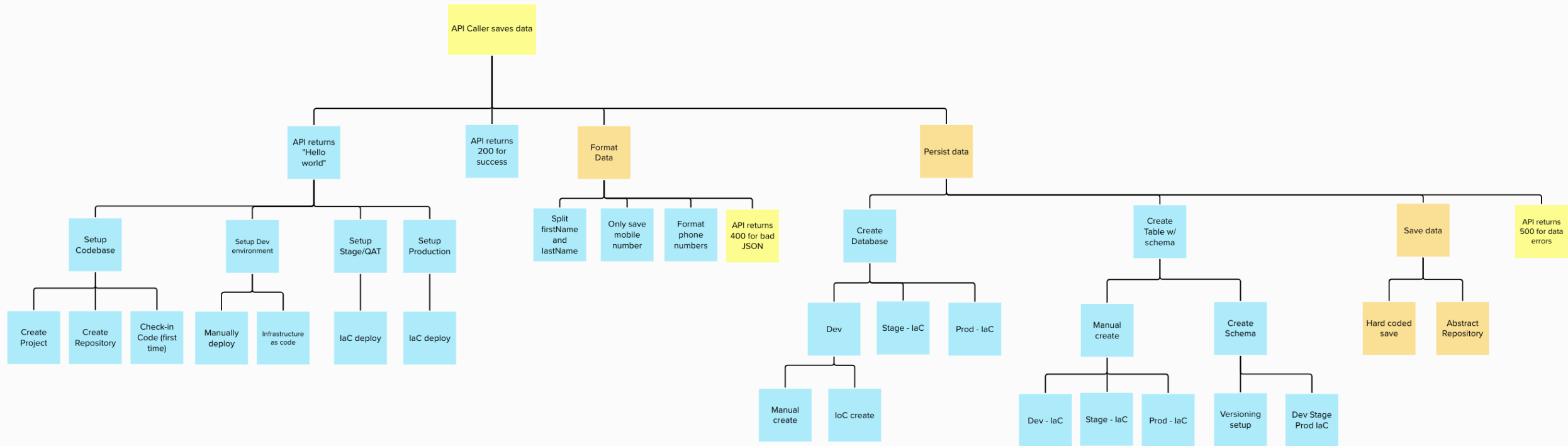
@WoodyZuill



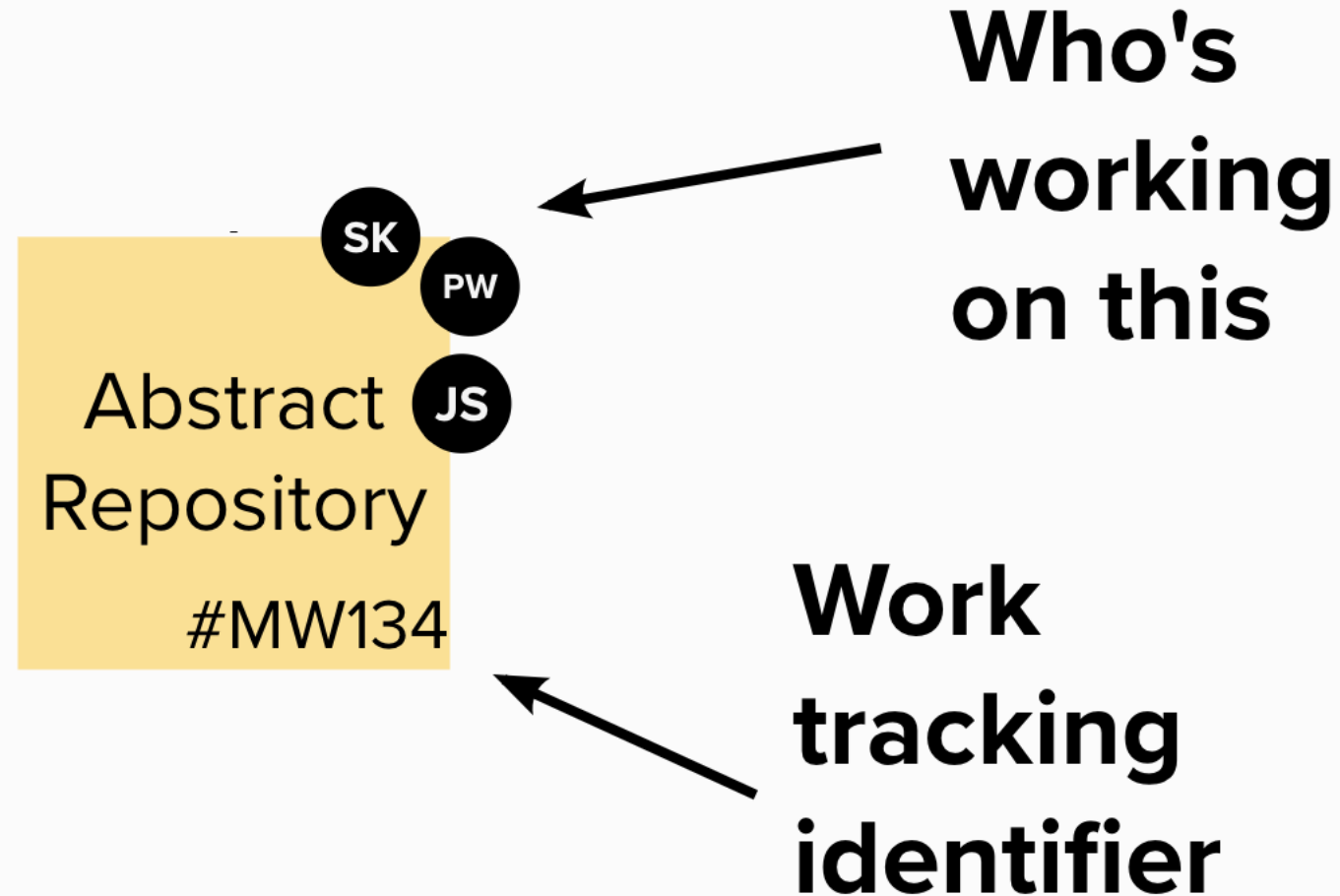
As I say: "it's in the doing of the work that we discover the work we must do", (or the point where balance is achieved)

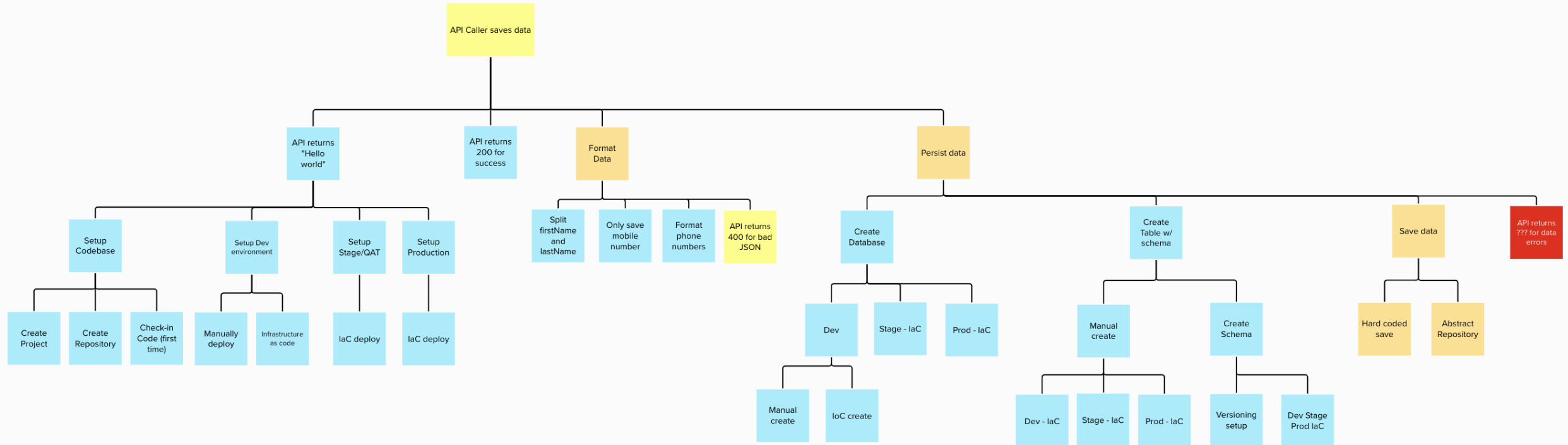
6:23 PM · Jul 15, 2016 · Twitter for iPhone

The tree can grow to n x n dimensions
and is not restricted by common agile conventions for defining work...



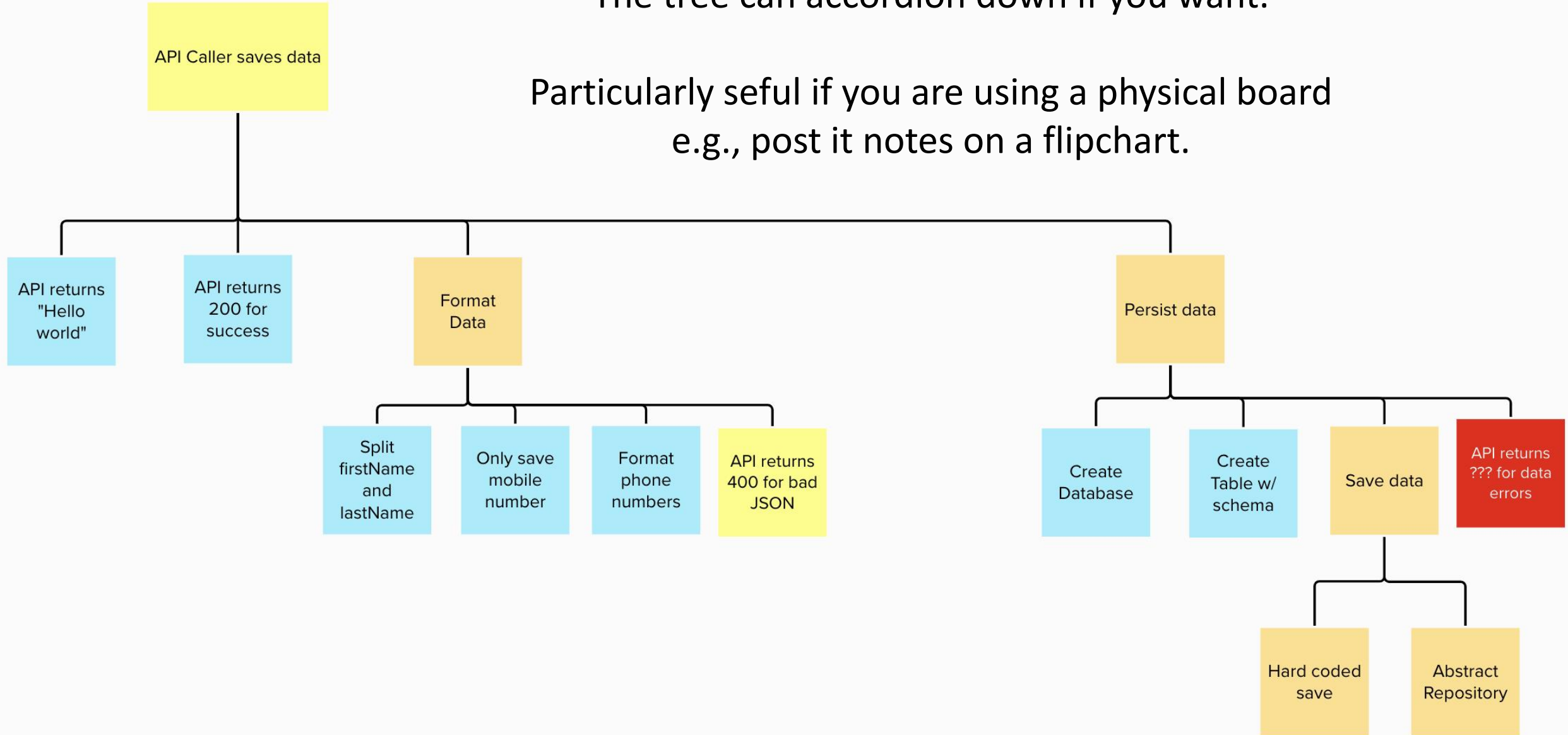
The tool gives you freedom to manage whatever meta-data you want, including color coding.

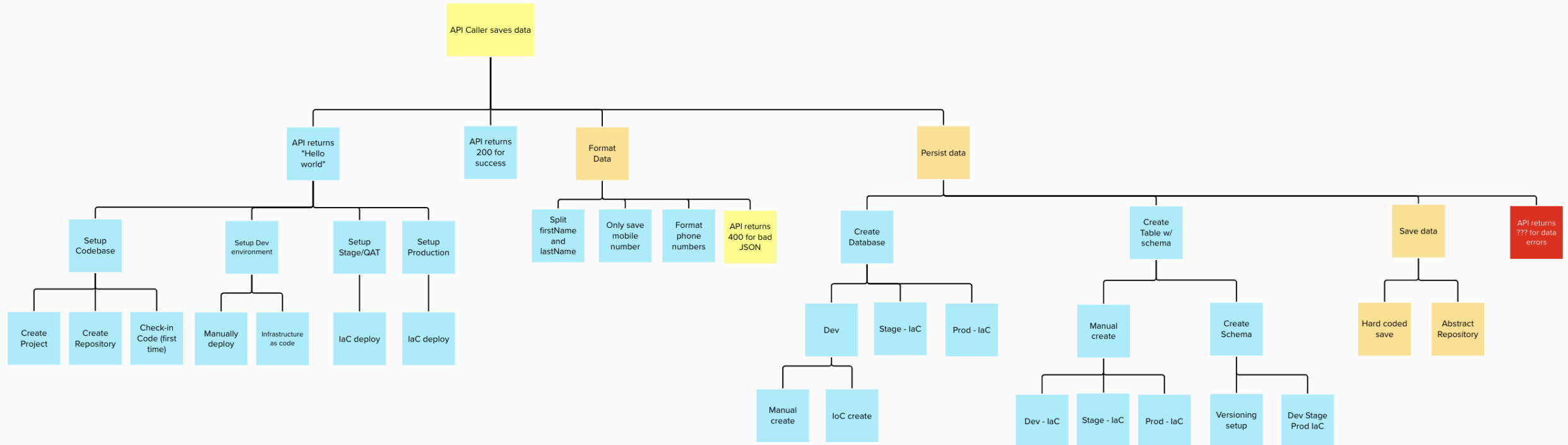




The tree can accordion down if you want.

Particularly seful if you are using a physical board
e.g., post it notes on a flipchart.





Home > Blog > Working With Discovery Trees

Working With Discovery Trees

Steve Kuo

24 May 2022 7 min read



facebook



twitter



linkedin

Agile

Agile Development

Behavior Skills

Coaching

Culture

Development

Estimates

Process Improvement

Product

Software Design



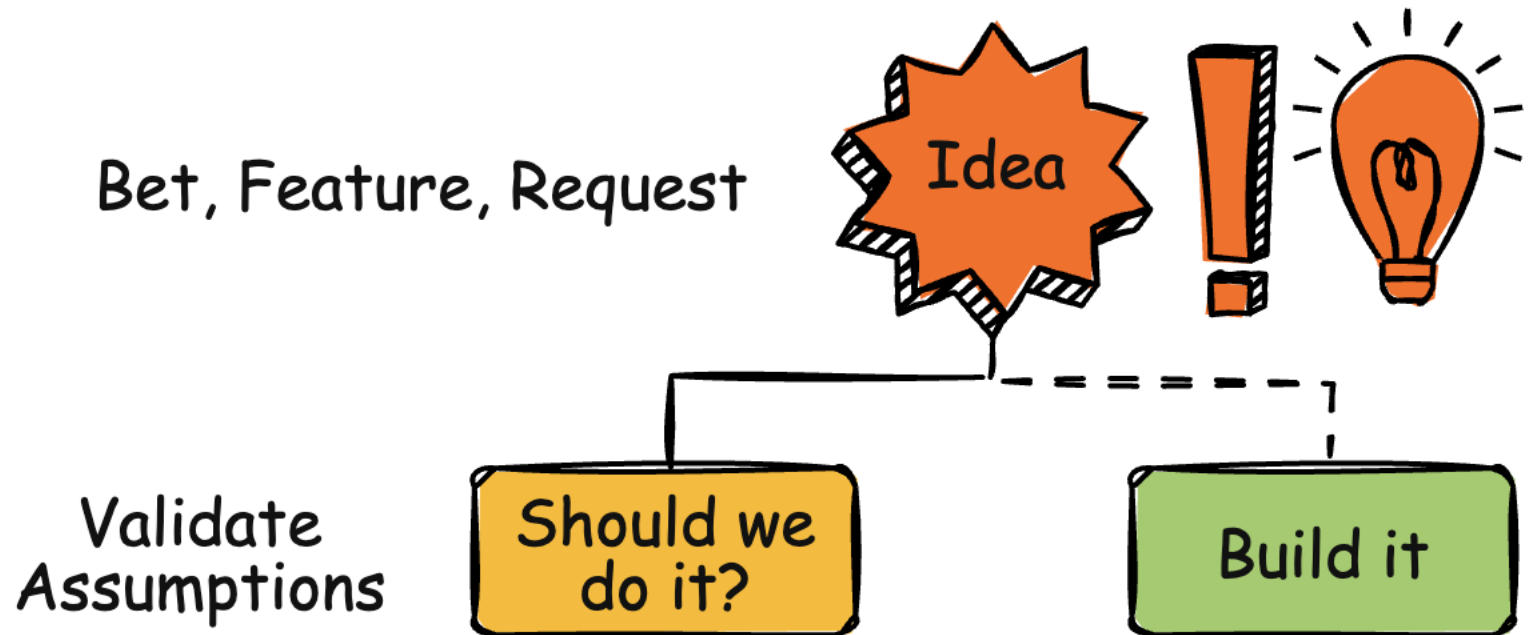
Steve Kuo

Senior Consultant
Seattle, WA - USA

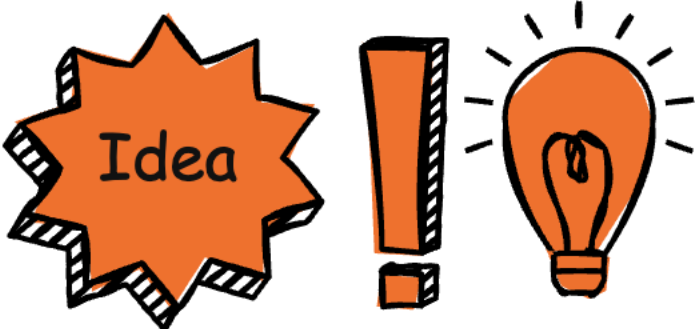
Are you struggling with tracking work through your system? Finding it difficult to get the “big picture” view of how complete a feature is? Wrestling with thin

<https://www.industriallogic.com/blog/discovery-trees/>

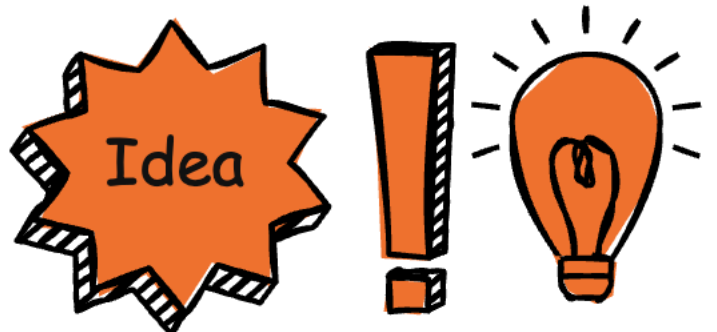
Example Discovery Tree : Discovery



Bet, Feature, Request



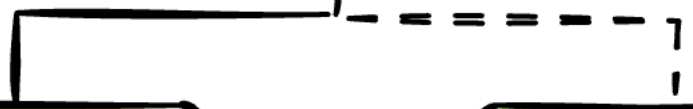
Bet, Feature, Request



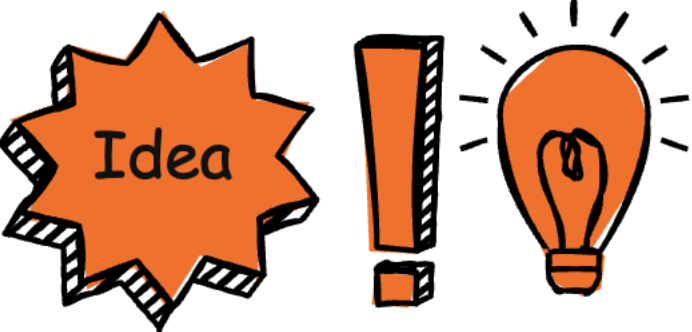
Validate Assumptions

Should we do it?

Build it



Bet, Feature, Request



Validate Assumptions

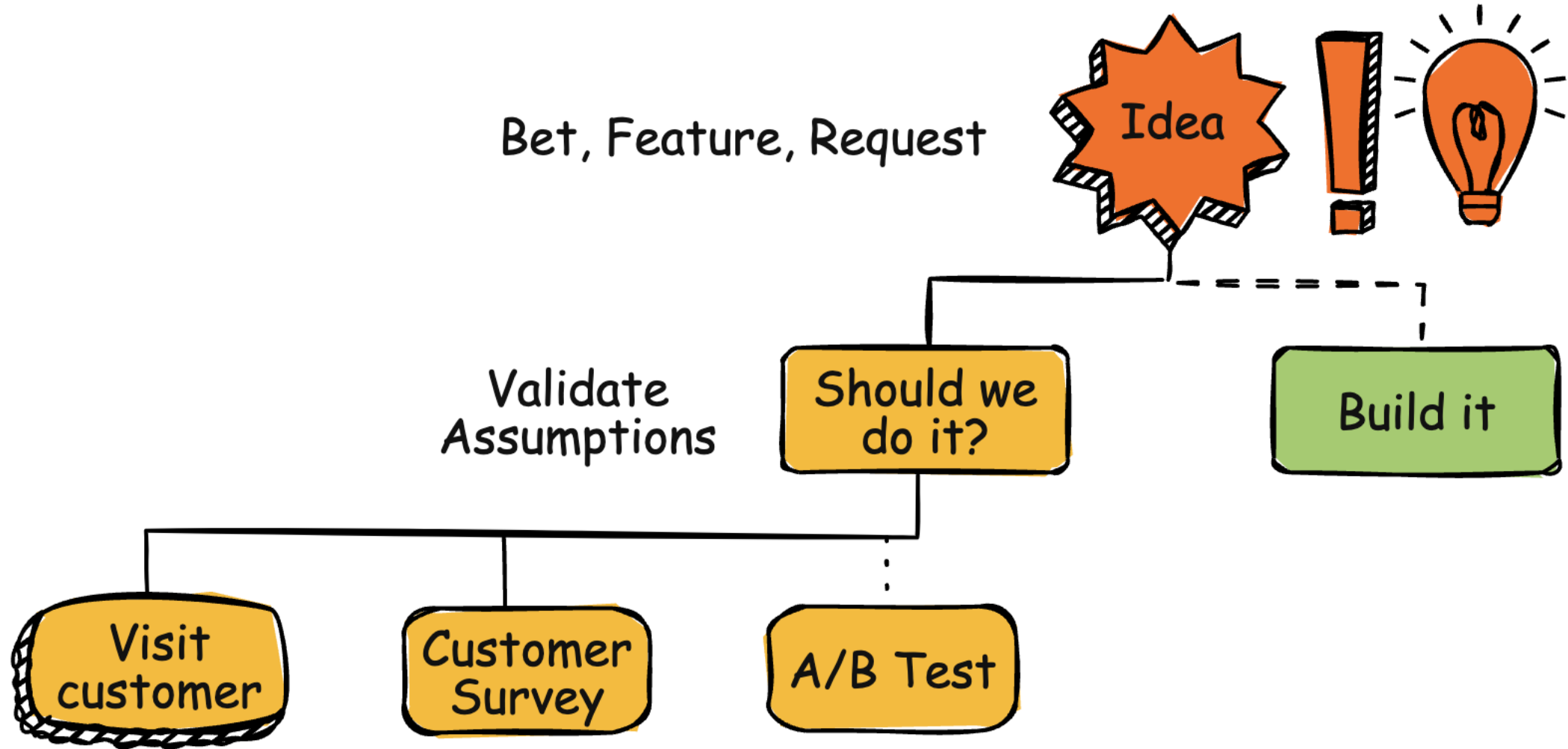
Should we do it?

Build it

Visit customer

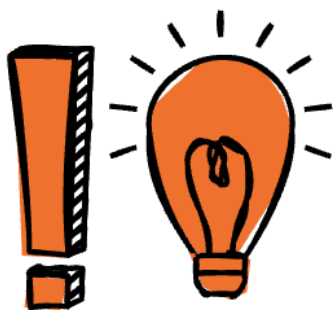
Customer Survey

A/B Test



Discovery work

Bet, Feature, Request



Validate Assumptions

Should we do it?

Build it

Delivery Work

Visit customer

Customer Survey

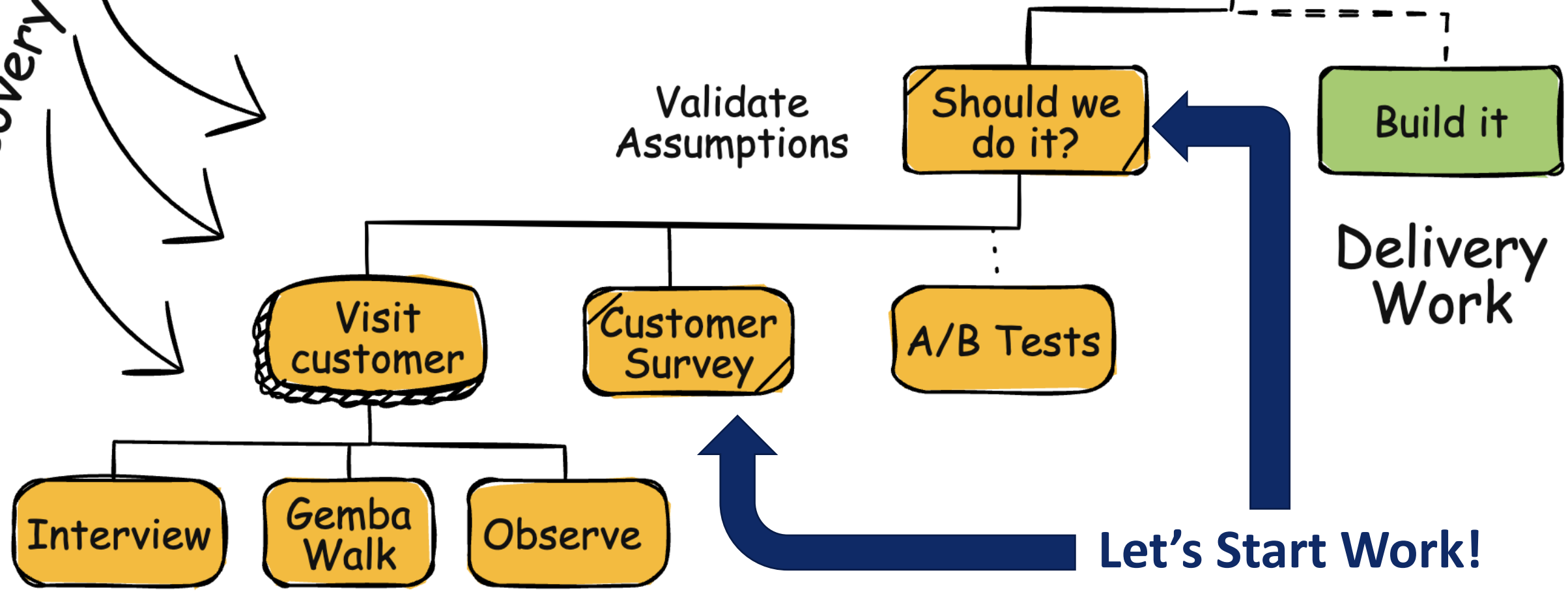
A/B Tests

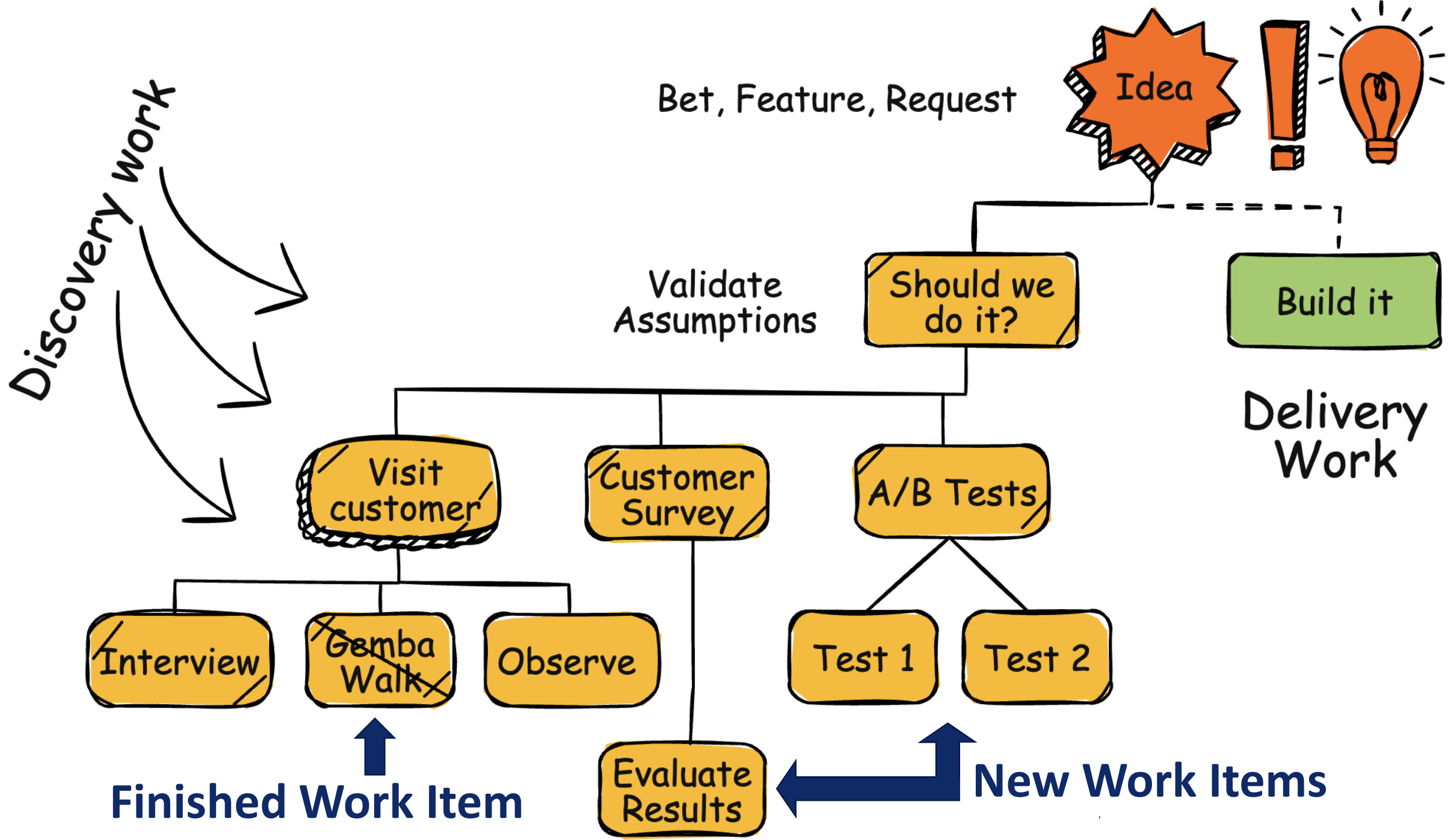
Interview

Gemba Walk

Observe

Let's Start Work!

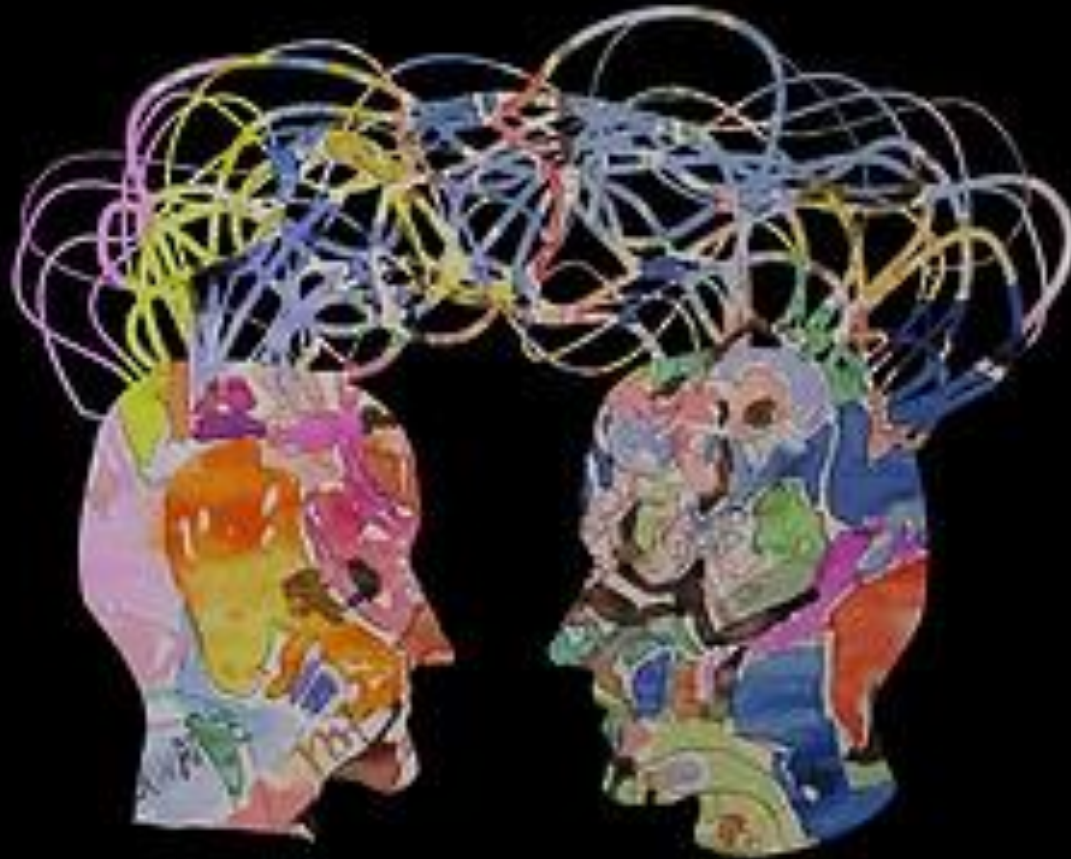




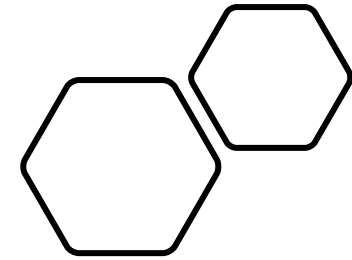
Summary of Benefits – Discovery Trees

- Enables emergence
- Encourages Lean with Just enough, Just in time
- All work items have context
- Not stuck in agile naming conventions
- Shows progress at a glance
- Can be used for rapid forecasting
- Supports rich meta data and linking back to more detail when needed
- Enabler for dynamic reteaming
- Can represent both discovery and delivery work – together or separate

Visualizing Complexity



David R. Foran, 12/2007





A tree structure makes it easy to communicate the big picture while also diving into the details when needed.



Teresa Torres

Thinking Big While Working Small

thinking **Big** while working small =
Product Mapping (big) +
Discovery Trees (small)

Came from FAST Agile(Fluid Scaling Technology for Agile)



Discovery Work vs Delivery Work



Discovery Work Item Examples

- Direct customer interactions
- Customer labs
- A/B testing
- Getting out of the office
- Analyzing results
- Making decisions
- Testing assumptions



Delivery Work Item Examples

- Design / Architect
- Engineering
- Testing quality
- Testing functionality
- Deployment/delivery
- Monitoring, inc. Synthetic
- Stress/load/defect testing

Discovery Trees

Discovery and delivery work can both be represented – and happening at the same time in the same tree!

Real World Examples

Of Discovery Trees

DEPLOY TO
WINDOWS
STORE ~~ACCT~~
#792

~~GET REPO
W/UP IN
VSTS~~

CREATE
PROJECT
10586 → 8264MS

BUILD
IN VSTS

RELEASE
TO VSTS
IN TO STORE

~~APP
PROJECT~~

~~PROJECT
UNIT TESTS
W/TEST~~

~~UI TESTS
PROJECT
W/TEST~~

CREDENTIALS
TO WIN STORE
ACCT

~~FIX BUILD
ERROR
UPDATE BUILD
HASHED
FOR VSTS~~

RUN
UNIT
TESTS

RUN
UI UNIT
TESTS

SIGNING
CERT

CHECKMARK

GET

SECURELY
STORE

~~EMAIL
AMIE
FOR "HAR"~~

~~EMailed
OPS
FOR SUGGESTION~~

CHATBOT FEATURE BOARD

Data

APIs

Bot Plat

Android Client

CI CD

Postify Internal Calls

Web Socket Proxys

UIO PSP Calls

Versioning Strategy

Productify Code

Scrub Proprietary Code

SDT up VSTS Release To Resource File

mom Edge

Postify Services

Modify (bot bot Config (Binary)

mom PSP

mom SSO

BUGS GO HERE ↓↓↓

Issue 1	Issue 2	Issue 3	Issue 4
Issue 5	Issue 6	Issue 7	Issue 8
Issue 9	Issue 10	Issue 11	Issue 12
Issue 13	Issue 14	Issue 15	Issue 16

Very Tired

Prod App Deployment Task

Issue 17

Issue 18

?

Data Resour

R-Next

Task 19

Task 20

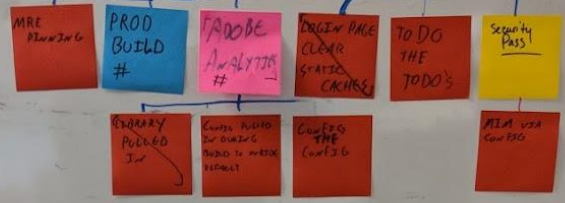
Task 21

Task 22

UWP FEATURE BOARD

NEXT UP

MISC TASKS



Cost and Savings #886

MRE

#885 ID CARD

Check/Verify Info button for responsibility to verify another device over

ACTIVITY TRAILER
KEX TO CLEAR AFTER MRE

MPRDC Co. PFG FILE

LOG IN SCREEN
Disable login when no internet connection

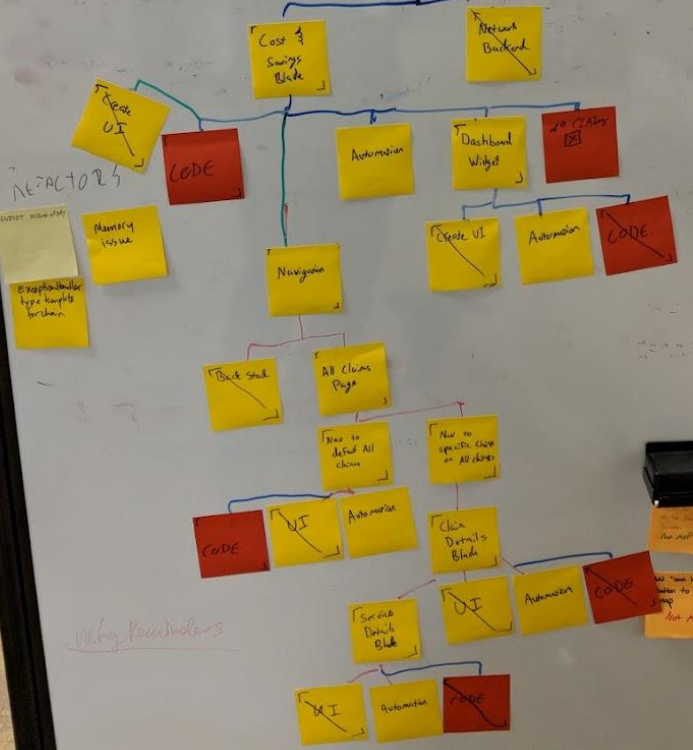
CERT PIN SSO

FIND LANE
Find one widget change color of top (background) widget to focus

FIND CASE WIDGET
Focus on PFG widget from BUIG

Find one widget Blackboard

Claims



Deny to Windows Store app on #792

Proton UI Row ALWAYS use not RECALC

UI Tasks Group app into resource background

Missing Dialog & Control Dialog Plan in white lab later

BLOCKED

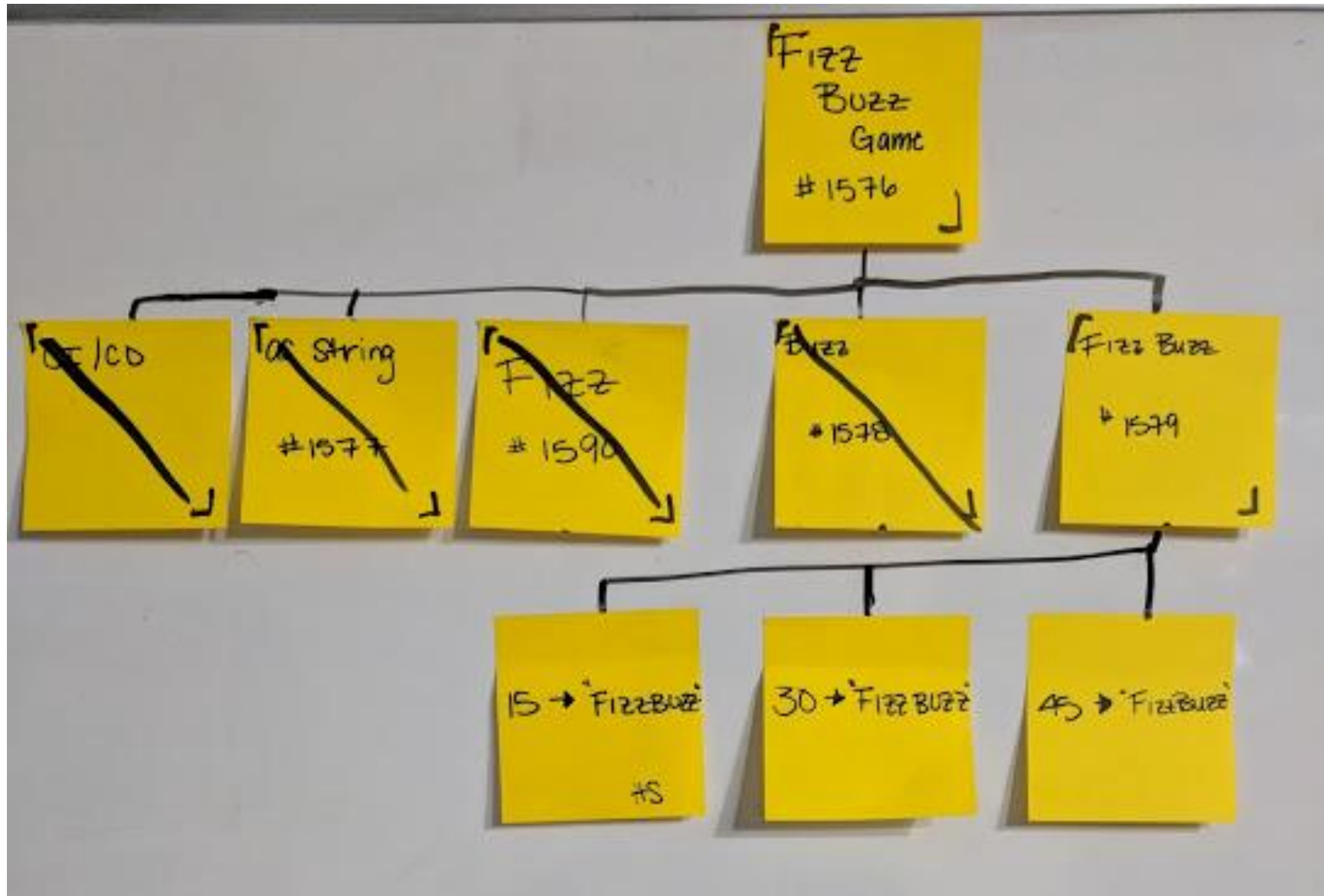
REFACTORS

Memory issue

Example/Model type handles broken

Remember Use this class as work on Premier Markers

Using RowMarkers



Attributions to Quinn Gil - <https://quinngil.com/2020/02/03/feature-mapping/>

Article

Discovery Tree - A Simple and Natural Way of Story Creation, Project Tracking and Shared Ownership



Quinn Gil, Ron Quartel

03 Feb 2020 • 18 min read

Attributions to Quinn Gil - <https://quinngil.com/2020/02/03/feature-mapping/>

Retrospective

What did you learn?

Discovery



**Discovery feeds delivery,
and delivery feeds discovery.
They aren't two distinct
phases. You can't have one
without the other.**

- Teresa Torres

Delivery

Benefits, Summary, Closing

Summary of Benefits

Tooling

Similar Concepts

Finding Out More - References

Staying in Touch - Links



Woody Zuill
@WoodyZuill



As I say: "it's in the doing of the work that we discover the work we must do", (or the point where balance is achieved)

6:23 PM · Jul 15, 2016 · Twitter for iPhone

Summary of Benefits

Tool for PM and Devs	Supports Dynamic Reteaming (and FAST Agile)	Lightweight	Highly adaptive – supports new discoveries	Discovery and Delivery supporting (not just Delivery)	All the information one needs can be found at a glance
Work items always have context	A tool to aid in splitting down work	Supports lightweight forecasting	Visibility into what is started, not started, done, blocked etc.	Supports any amount of meta information needed (colors, markings etc.)	Maintains the complex nature of work (to n dimension)
Bypasses the confusion that agile industry have made around naming conventions of work items	Helps with flow	Supports and encourages “Just enough and Just In Time” view of work, and breaking down of work	Simple	Easy to use	Map of Maps
Enabler for Self-organization	Enabler for Thinking Big while Working Small	Information Radiator	No need for velocity or story pointing	Acceptance criteria only when useful/needed	Can see the wood from the trees (solves ALM tooling issues)

Tooling

Are there tools available?

What Tools are Available?

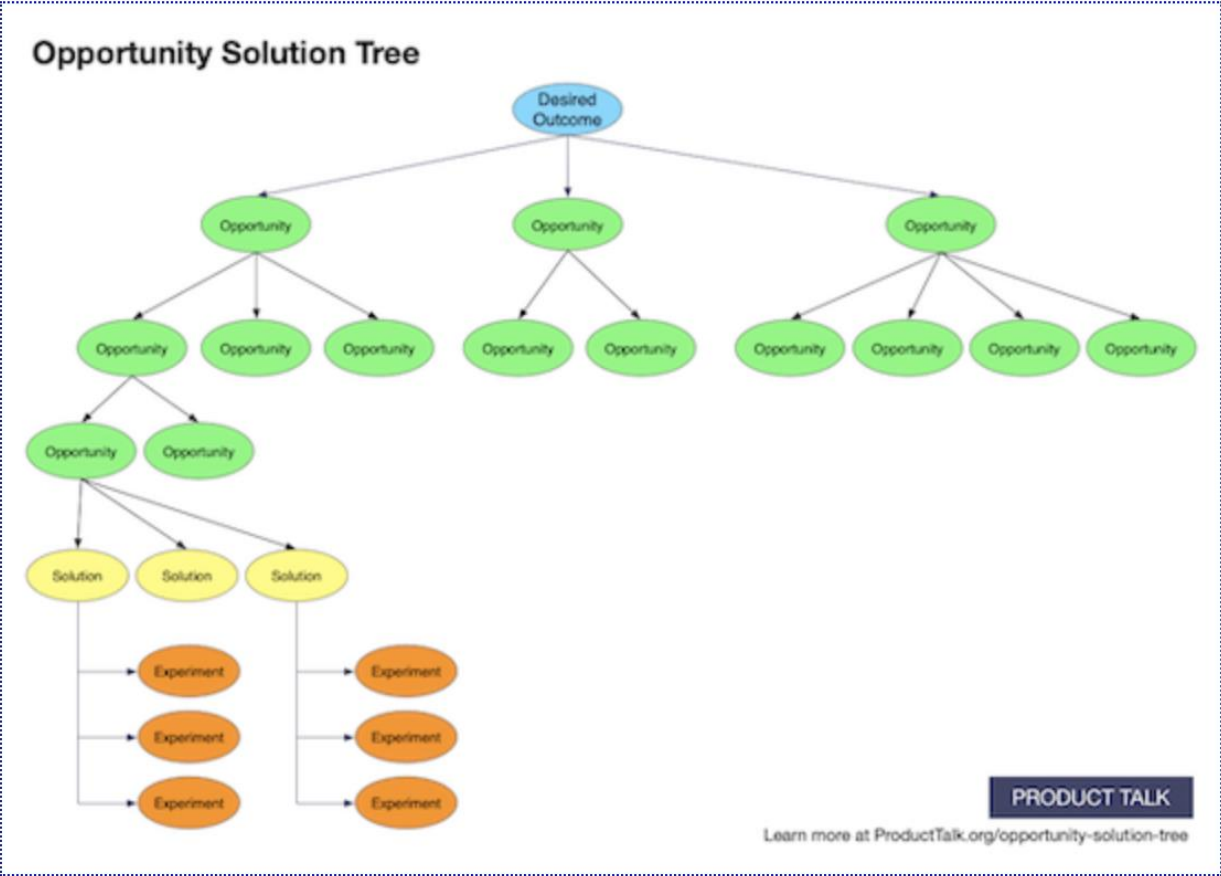
- Mind mapping tools
- Miro, Mural, others of this ilk
- If the number of dimensions you need matches the number made available by your ALM tool, you can use that
- Post it notes



Similar Concepts

Opportunity Mapping (Teresa Torres)
The Mikado Method

Opportunity Solution Trees: Visualize Your Thinking

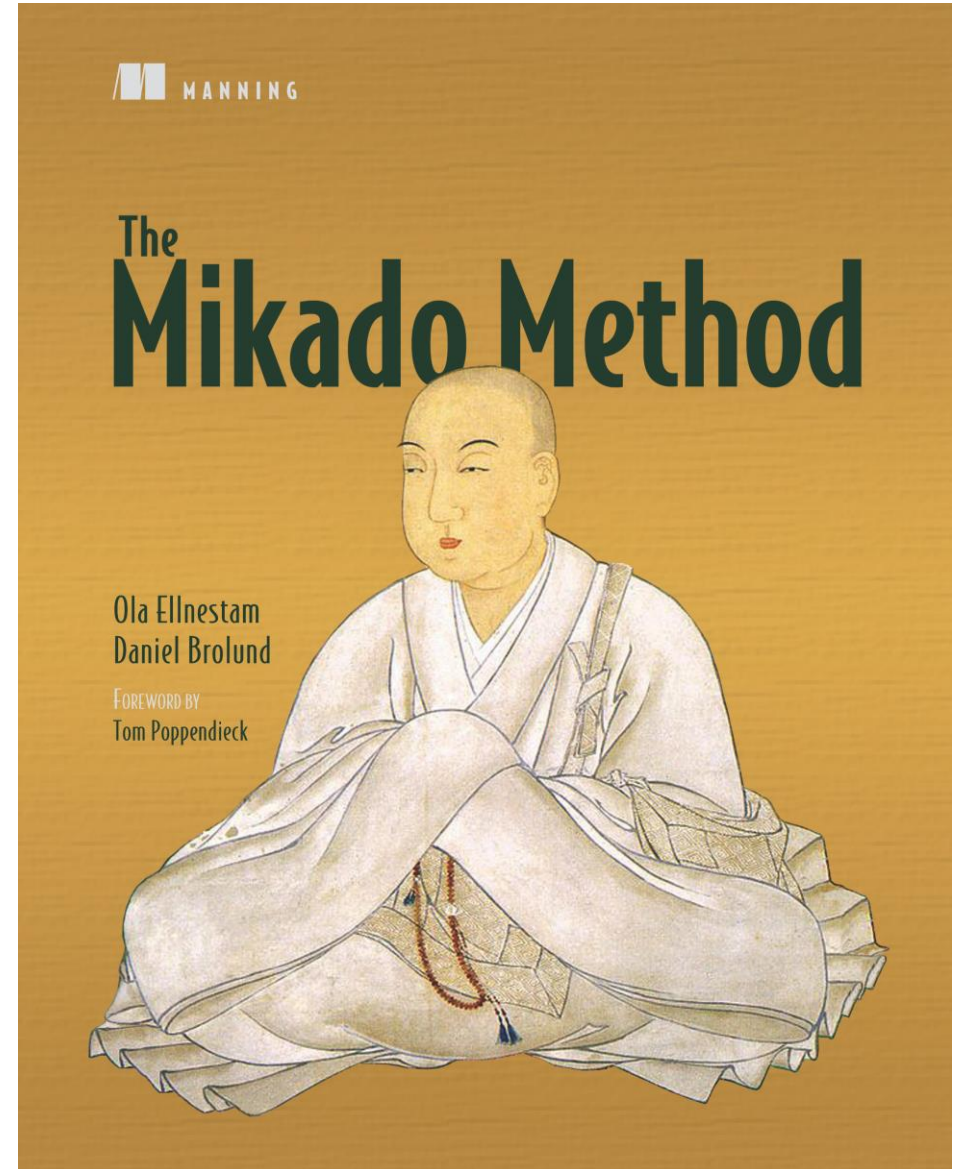
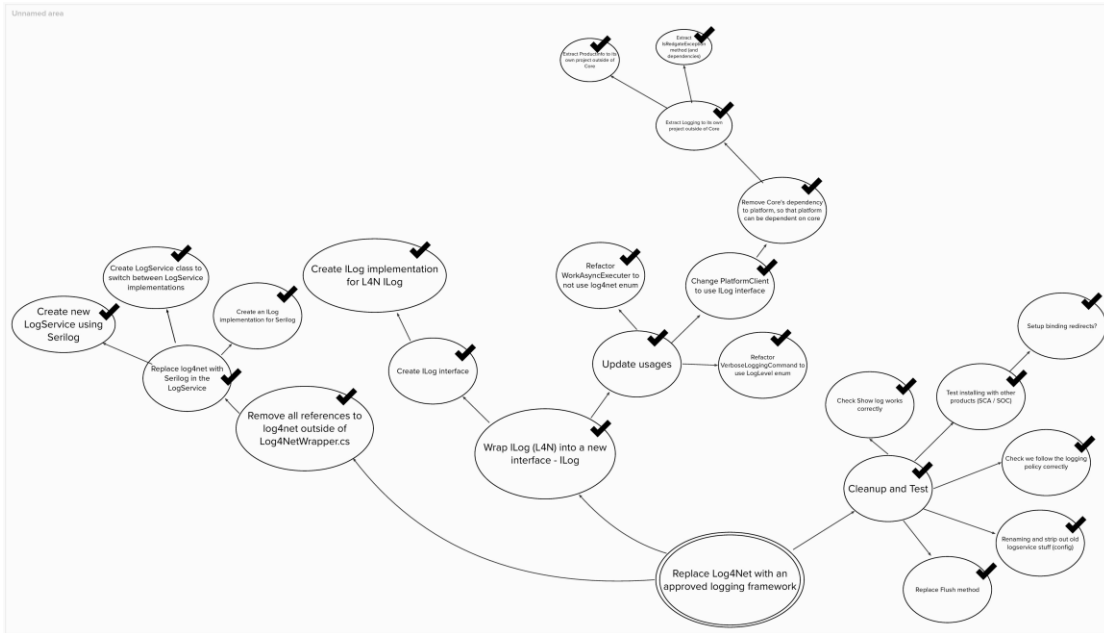


Opportunity solution trees help you visualize your thinking.



Teresa Torres is an internationally acclaimed author, speaker, and coach. She teaches a

structured and sustainable approach to continuous discovery that helps product teams infuse their daily product decisions with customer input. She's coached hundreds of teams at companies of all sizes, from early-stage start-ups to global enterprises, in a variety of industries. She has taught over 7,000 product people discovery skills through the Product Talk



Find Out More

Where to go from here for more information

Resources to find out more

Untangling Confusion with a Discovery Tree ~ Jon Reid

<https://www.youtube.com/watch?v=dt7JVmpw-DE&t=1300s>

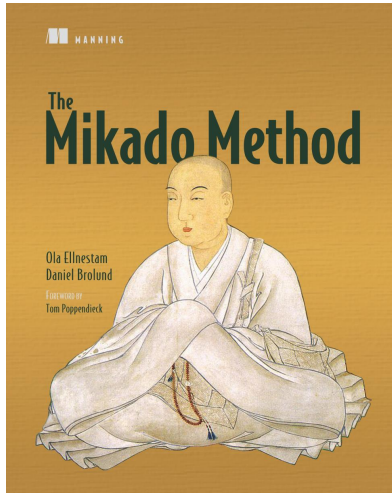
Discovery Trees - A Simple and Natural Way of Story Creation, Project Tracking and Shared Ownership ~ Quinn Gil

<https://quinngil.com/2020/02/03/feature-mapping/>

Working With Discovery Trees ~ Steve Kuo

<https://www.industriallogic.com/blog/discovery-trees/>

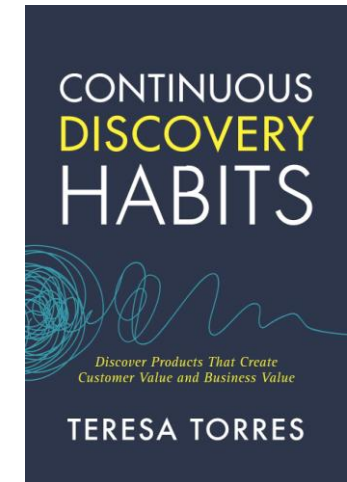
References and Resources



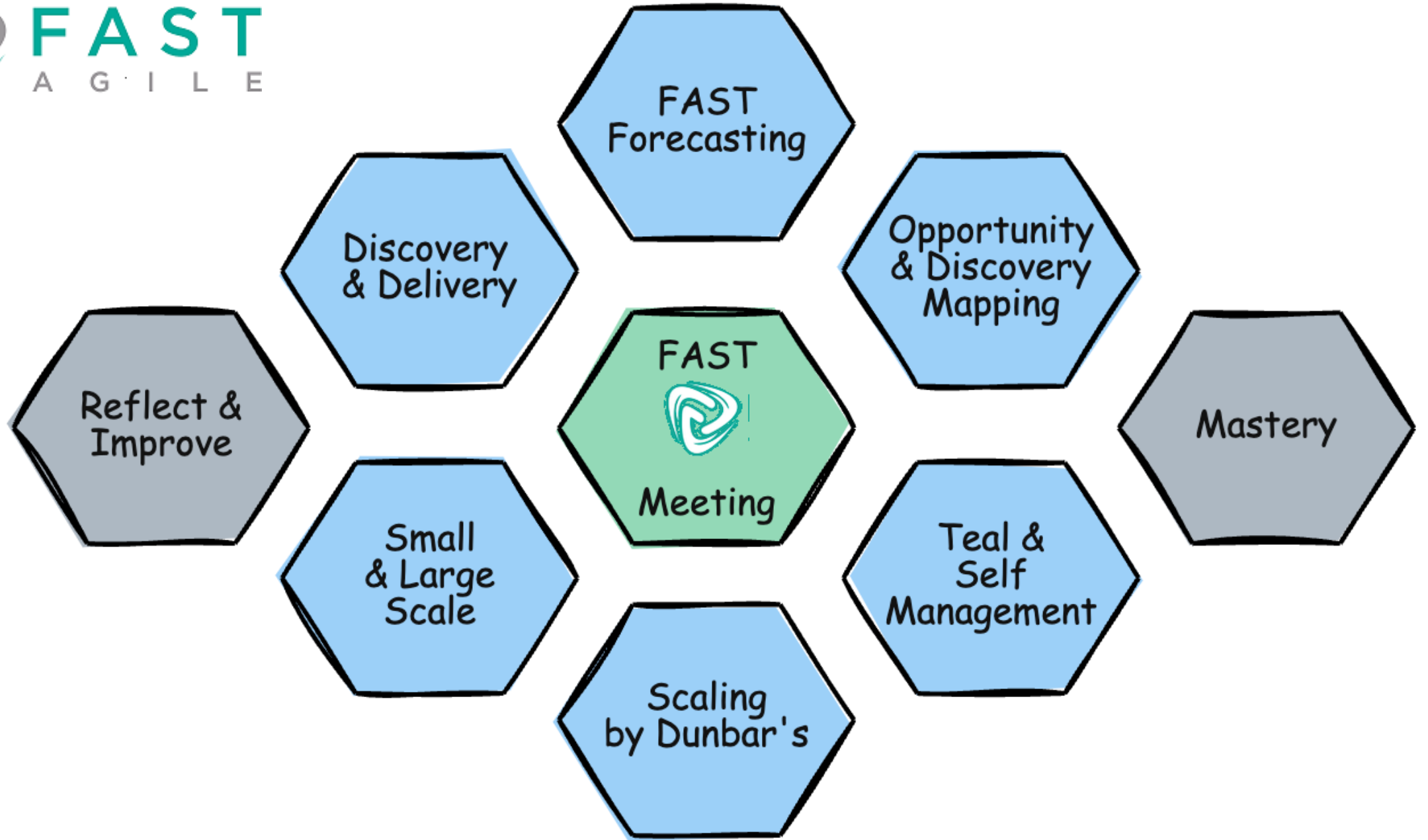
The Mikado Method
by Olla Ellnestam
and Daniel Brolund



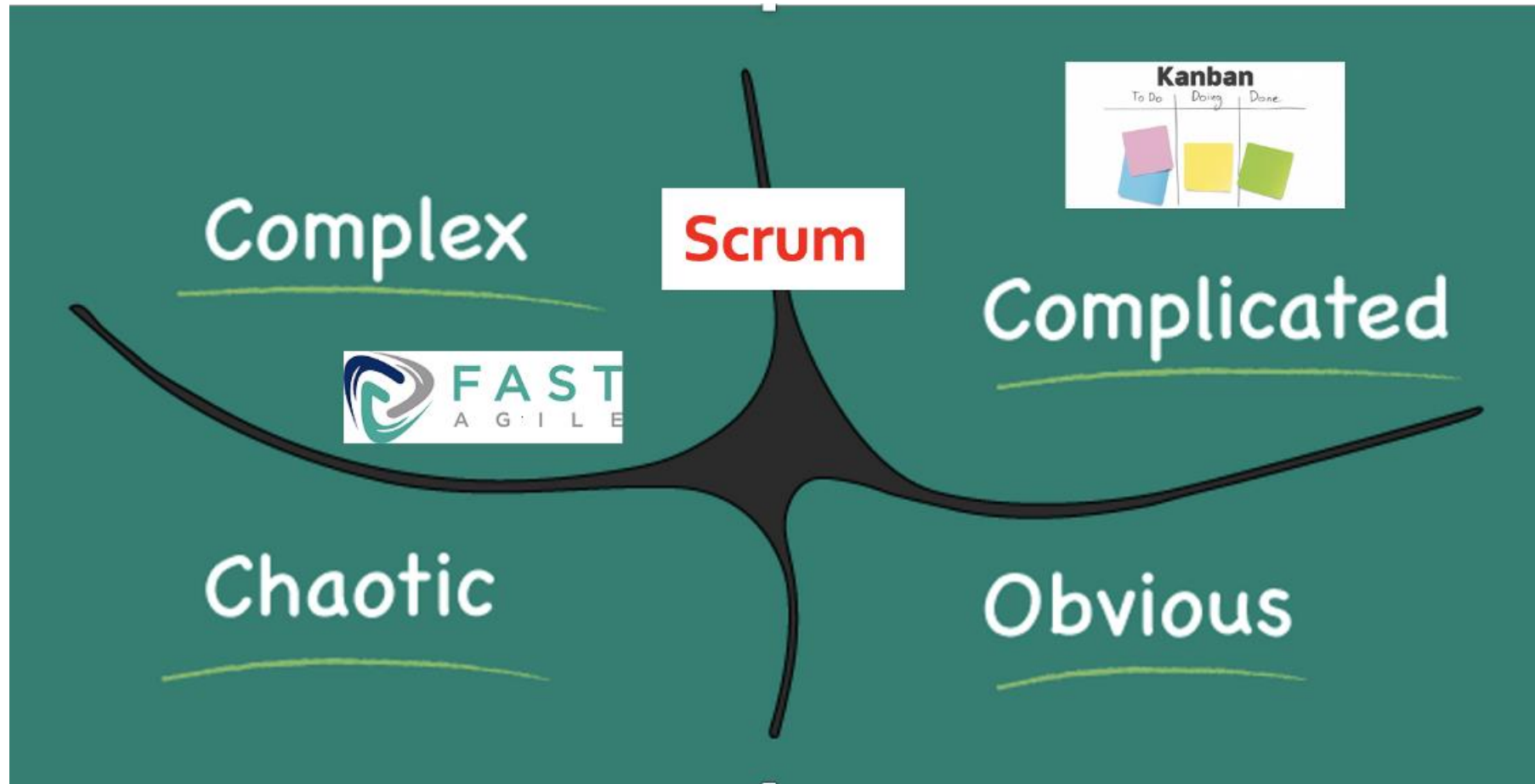
FAST Agile
by Ron Quartel
<https://fluid.scaling.tech>



Continuous Discovery Habits
by Teresa Torres



FAST is the First Purely Complex Agile Method!



Staying in Touch

Ron and Paige want to stay in touch with you

Stay in touch

Ron Quartel

LinkedIn —

<https://linkedin.com/rquartel>

Twitter —

[@ronquartel](https://twitter.com/ronquartel)

[@fstagile](https://twitter.com/fstagile)

Blog —

<https://medium.com/@ronquartel>

Paige Watson

LinkedIn —

<https://www.linkedin.com/in/paige-watson-b817564/>

Twitter —

[@paigeisxp](https://twitter.com/paigeisxp)