

# Agile in Action *meetup*



## Flight Levels In Action

Moving to Organizational Agility

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# Agenda

1. Intros
2. DOD Example
  1. Large Multi-Team Program
  2. Dependencies, Coordination
3. Online Education Example
  1. Internal and External Teams
  2. Physical Constraints, Hard Deadlines
4. Small Consultancy Example
  1. Limited Resources Balancing Sales and Delivery
  2. Diffuse Product Portfolio
5. Flight Levels
6. Key Takeaways, Q&A

# 1. Intros

# Craeg Strong



CTO, Ariel Partners  
FLC/FLG AKC/AKT/KCP, CSM/CSP/CSPO,  
ITILv3, PMI-ACP, PMP, CLP, SPC, CEH  
ICP-ACC, ICP-ATF, PSM-II, PSK

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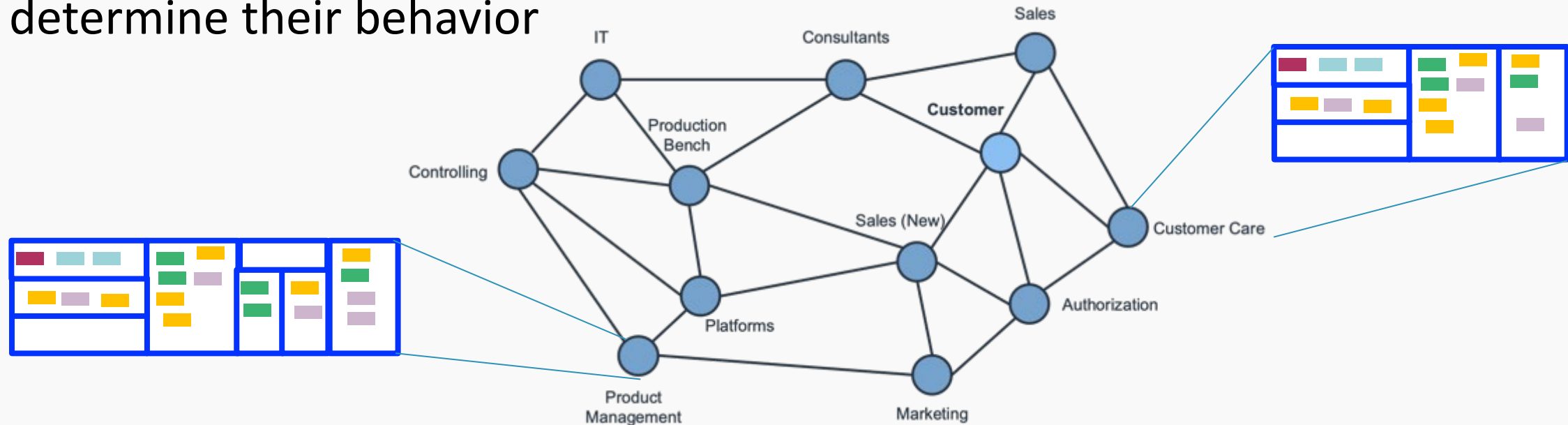
- Software Development since 1988
- Large Commercial & Government Projects
- Kanban Coach / DevOps Engineer
- Kanban Trainer / SpecFlow Trainer
- Performance & Scalability Architect
- Certified Ethical Hacker
- New York & Washington DC Area



# Kanban View:

## Organization as Network of Interdependent Services

Organizations are a network of interdependent services with polices that determine their behavior

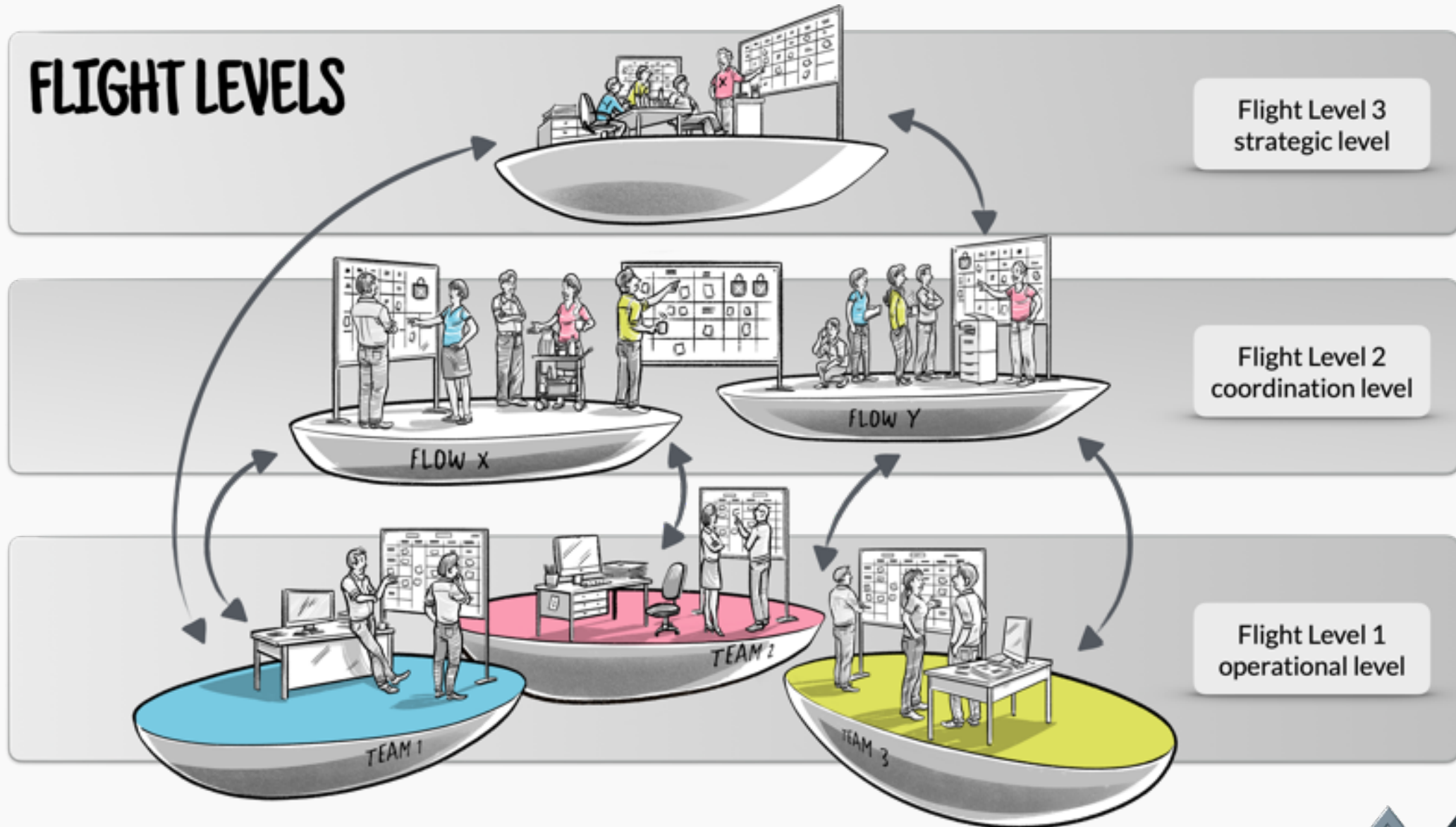


....but are there any common patterns?

Given these axioms, can we find any corollaries?

Can we derive theorems?

# Flight Levels Thinking Model



# 3. DOD Example





## DoD Client

120+ Programs

2,100+ Personnel

200+ Stakeholders

\$1.03B Annual Portfolio

## Business Areas Supported

Acquisition, Contracting, Finance, Logistics, Maintenance, Operations, Personnel, Transportation, and Civil Engineering

## Challenges

- ❖ Unique Programs (age, complexity, tech debt)
- ❖ Different phases in SDLC
- ❖ Diverse Governance & Management Structures



# Team Boards

ABSS board

## ABSS Sprint 6

Job postings and advanced trainer support

🕒 5 days remaining

Complete sprint

Board ▾



QUICK FILTERS: [Carried Over from prev sprint](#) [Recently updated](#) [Recently Moved](#) [Overdue](#) [Stale](#) [Urgent](#) [Fixed Date](#) [Blocker](#) [Blocked](#) [Web](#) [BI](#) [Mobile](#) [Only My Issues](#)

TO DO 0

MAX 20

READY 1

MAX 20

IN PROGRESS 4

MAX 7

IN REVIEW 2

MAX 5

RESOLVED 3

MAX 6

CLOSED 9

MAX 20

ABSS-102  
Trainers should have additional details in their profiles  
[User Profiles](#)  
ABSS-85 - Resolved, ABSS-57 - Closed  
None  
DoD: 1/7  
8

ABSS-104  
list my upcoming classes in my profile with links for more info  
[User Profiles](#)  
ACES-213 - To Do  
Max Taylor  
DoD: 3/5  
2

ABSS-84  
Administrator can set fee for posting other courses or events  
[Courses and Events](#)  
No Blockers  
Cassie Owens  
DoD: 5/5  
8

ABSS-105  
view profiles of other members on the site  
[User Profiles](#)  
No Blockers  
Taman Suherman, William Smith  
DoD: 5/5  
3

ABSS-128  
Article disappears second time it is viewed  
[Articles](#)  
No Blockers  
None  
DoD: 3/3  
1

ABSS-90  
Convert course to event or vice versa  
[Courses and Events](#)  
No Blockers  
William Smith  
DoD: 1/5  
1

ABSS-66  
Full-Text Search in FAQs  
[FAQs](#)  
No Blockers  
Kevin Campbell, Nia Coleman  
DoD: 5/5  
8

ABSS-129  
Unable to pay for course, screen hangs  
[Courses and Events](#)  
No Blockers  
None  
DoD: 3/3  
1

ABSS-77  
Notify via email of job postings about to expire  
[Employment Opportunities](#)  
No Blockers  
Taman Suherman, William Smith  
DoD: 5/5  
1

ABSS-59  
Provide Limited Member Only Content to Public as Incentive to Become Member  
[Articles](#)  
No Blockers  
Taman Suherman, William Smith  
DoD: 2/5  
5

ABSS-65  
Trainer can update existing courses or events  
[Courses and Events](#)  
No Blockers  
Cassie Owens, Max Taylor  
DoD: 5/5  
2

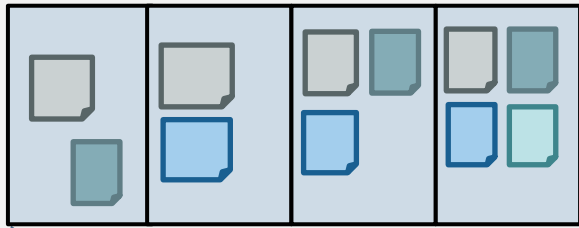
ABSS-74  
Manage content for job postings at any time  
[Employment Opportunities](#)  
No Blockers  
Max Taylor  
DoD: 5/5  
8

ABSS-56  
Edit Article to manage content  
9

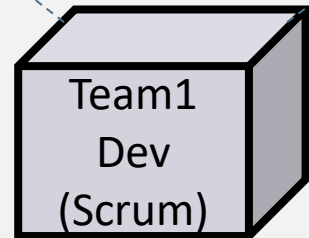
ABSS-87  
Trainer can copy an existing course or event to create a new  
9

# Coordination Across Teams and Programs

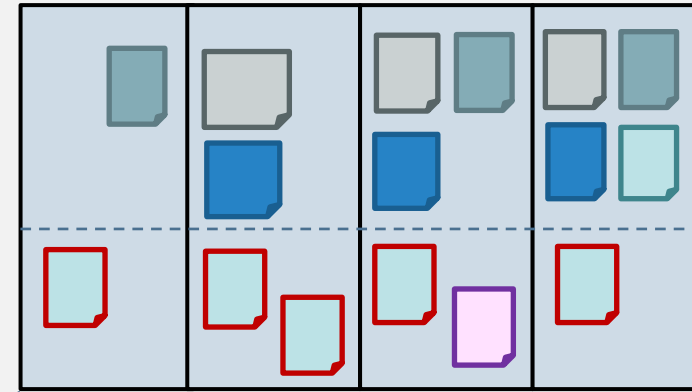
## Team Board



Team1 Board

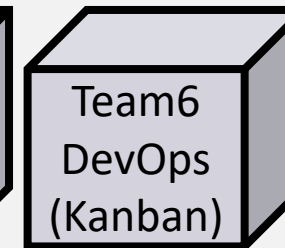
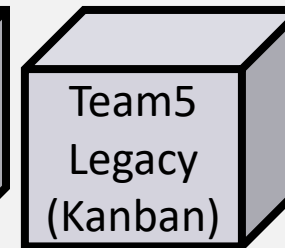
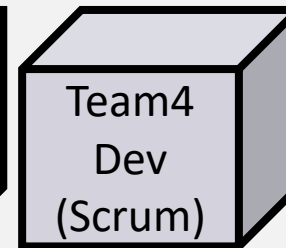
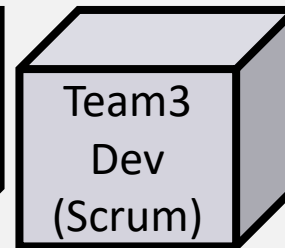
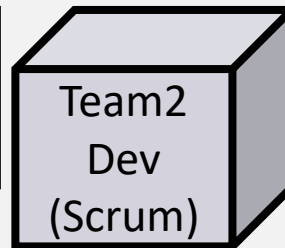
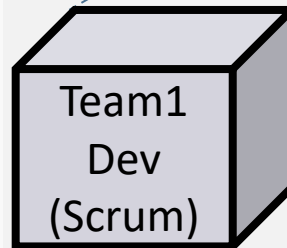


Daily Standup



Coordination Board

**Flight  
Level  
Two**



Weekly Standup aka "Scrum of Scrums"

# Supporting Multiple Teams in Jira

## 1. Configure Hierarchy with Advanced Roadmaps

ADVANCED ROADMAPS FOR JIRA

Advanced Roadmaps permissions

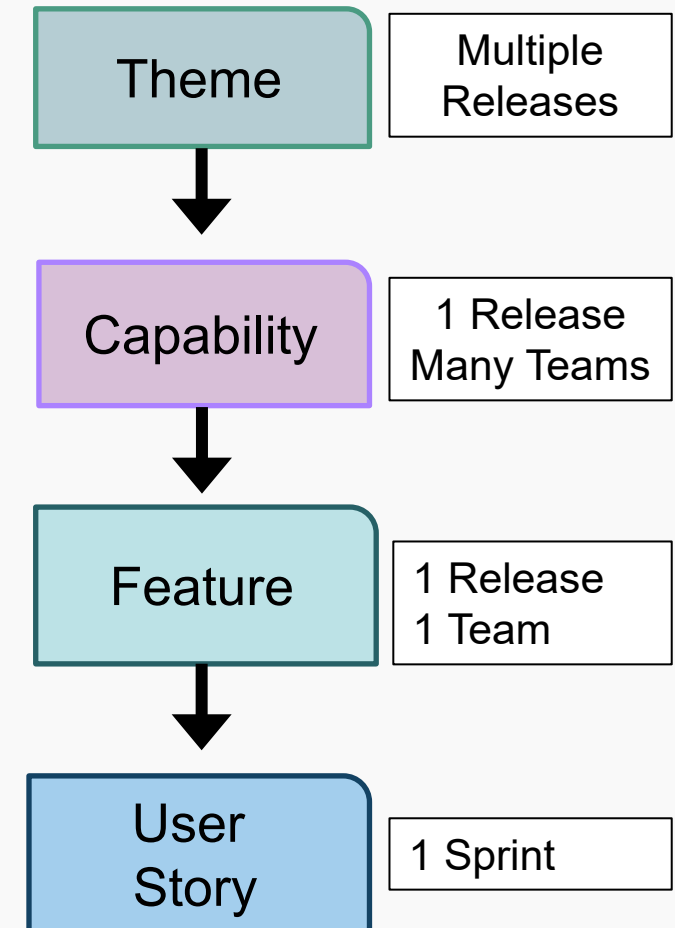
Advanced Roadmaps license details

Hierarchy configuration

## 2. Define Teams using Components

Component
Team 1: Alienoid
Team 2: Standard Ions
Team 3: Simsons

Team 4: Integrators
Team 5: Epigraphians
Team 6: Note-Takers
Team 7: COBOL & Kicks



# Flight Level Two Board

DMAPS Program Board

Kanban board

QUICK FILTERS: Overdue Blocked Urgent **Stale** Recently Moved Recently Updated

SHORTLISTED 3 ANALYSIS 2 **created > startOfYear()** READY 3 DESIGN 3 DEVELOPMENT 4 INTEGRATION 2 DEPLOYED 2 [Release...](#)

▼ Capabilities 9 issues

<p>INT-17 Geospatial Information</p> <p>None None DoD: <b>EMPTY</b></p> <p>☰ =</p>	<p>INT-6 Equipment Provisioning</p> <p>None None DoD: <b>EMPTY</b></p> <p>☰ =</p>	<p>INT-1 Approval Workflows</p> <p>None None DoD: <b>EMPTY</b></p> <p>☰ =</p>	<p>INT-7 Supplier Registration</p> <p>INT-15, INT-19, INT-16</p> <p>None DoD: <b>EMPTY</b></p> <p>☰ =</p>	<p>INT-4 Populate Missions</p> <p>INT-9, INT-11, INT-14, INT-18, I...</p> <p>None DoD: <b>1/7</b></p> <p>☰ =</p>	<p>INT-3 Setup Missions</p> <p>None None DoD: <b>14/14</b></p> <p>☰ =</p>	<p>INT-2 Cognito Authentication</p> <p>None None DoD: <b>21/21</b></p> <p>☰ =</p>
<p>INT-5 Mission Reporting</p> <p>None None DoD: <b>EMPTY</b></p> <p>☰ =</p>		<p>INT-8 Alternate Suppliers</p> <p>None None DoD: <b>EMPTY</b></p> <p>☰ =</p>				

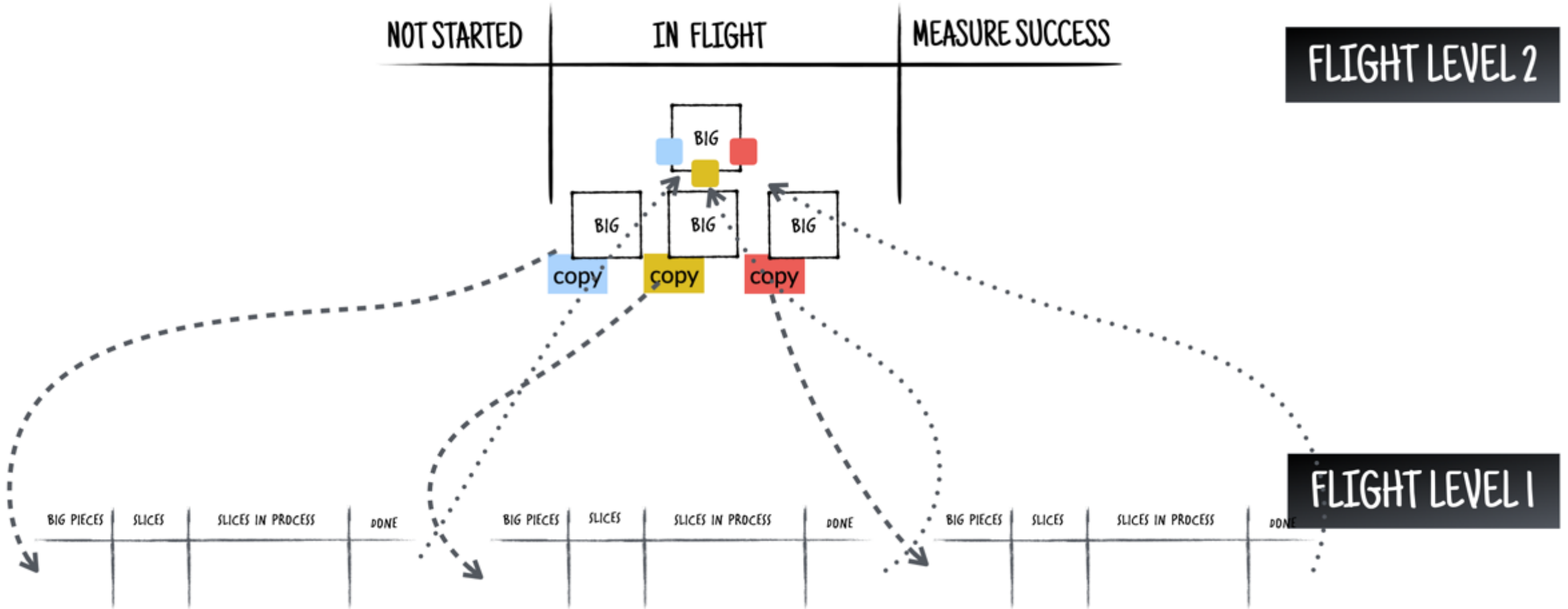
▼ Features 10 issues

<p>INT-19 Supplier Validation</p> <p>INT-7 None DoD: <b>3/3</b></p> <p>🔥 =</p>	<p>INT-16 Linked Suppliers</p> <p>INT-7 None DoD: <b>0/2</b></p> <p>🔥 =</p>	<p>INT-15 New Supplier</p> <p>INT-7 None DoD: <b>0/5</b></p> <p>🔥 =</p>	<p>INT-12 Integrate Supplier Server</p> <p>INT-4 Team 2: Standard Ions DoD: <b>0/7</b></p> <p>🔥 =</p>	<p>INT-11 Maintain Timeframe</p> <p>INT-4 Team 1: Alienoid DoD: <b>1/4</b></p> <p>🔥 🚩</p>	<p>INT-10 Duty Roster</p> <p>INT-4 Team 7: COBOL &amp; Kicks DoD: <b>4/4</b></p> <p>🔥 =</p>	<p>INT-18 Set Mission Success Parameters</p> <p>INT-4 Team 7: COBOL &amp; Kicks DoD: <b>3/3</b></p> <p>🔥 =</p>
			<p>INT-13 Setup Logistics</p> <p>INT-4 Team 3: Simsons DoD: <b>0/3</b></p> <p>🔥 =</p>	<p>INT-14 Visualize Terrain</p> <p>INT-4 Team 5: Epigraphians DoD: <b>2/5</b></p> <p>🔥 =</p>		<p>INT-9 Add Transport</p>

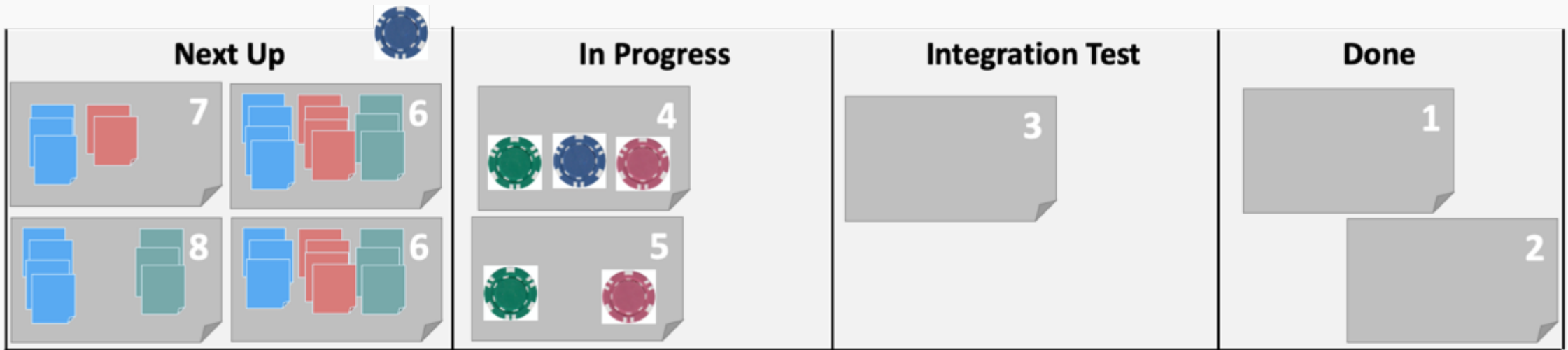
We're only showing recently modified issues.

🔍 Looking for an older issue?

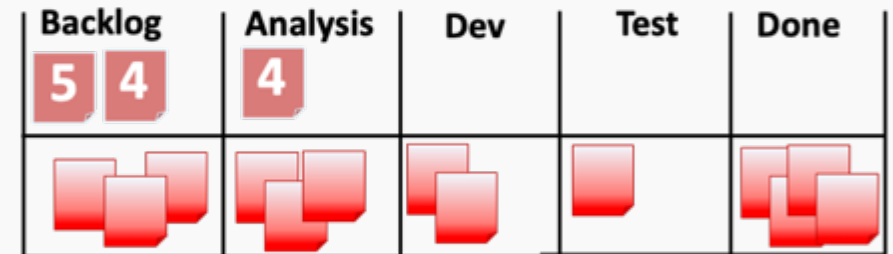
# Coordination Pattern: Slicing & Merging



# Coordination Pattern: Capacity Tokens



Backend Beatniks



Mobile Mod Squad



Modern Mainframers

# 2. Online Education Example



# Context: Online Learning Company

Learning Recovery Plan  
Grade 3

Grade 3 Learning Recovery Plan Overview

Division (100 to 1000), multiplication (100 to 1000) Third grade students need to master multiplication and division of whole numbers within 100. They also get their first exposure to fractions as numbers. For many children across the country, these skills would need further attention in their mathematics classes to study the concepts of fractions as numbers, work with mathematical properties of operations, and work with whole numbers in 3rd grade math. It is important for students to have a strong foundation in these skills to succeed in other high school math courses in the highest performing states by getting extra help.

**LEARNING OBJECTIVES**

- Master multiplication and division of whole numbers within 100.
- Master multiplication and division of whole numbers within 1000.

**LEARNING OBJECTIVES (by week)**

- Week 1: Lessons 1A, 1B, 1C, 1D, 1E, 1F
- Week 2: Lessons 2A, 2B, 2C, 2D
- Week 3: Lessons 3A, 3B, 3C, 3D, 3E, 3F

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On Saturday, 32,736 more movie tickets were sold than on Sunday. On Sunday, only 17,295 tickets were sold. How many people bought movie tickets over the weekend?

Sum  $17,295$

Sat  $17,295$   $32,736$

$67,326$  people bought

Handwritten calculations:

$$\begin{array}{r} 17,295 \\ + 32,736 \\ \hline 50,031 \end{array}$$

$$\begin{array}{r} 50,031 \\ + 17,295 \\ \hline 67,326 \end{array}$$

Handwritten notes: "Saturday", "Sunday", "67,326 people bought"

Handwritten calculations:

$$\begin{array}{r} 17,295 \\ 17,000 \\ \hline 33,000 \\ + 17,000 \\ \hline 50,000 \\ + 32,736 \\ \hline 82,736 \end{array}$$

$$\begin{array}{r} 50,000 \\ + 17,000 \\ \hline 67,000 \end{array}$$

Use the hanger diagram to solve for the value of  $w$ .

Write an equation to represent the hanger diagram.

Task Group 1 #123512

Enter ✓

- ❑ Mission: Help K-8 Students to love and excel at Math
- ❑ Primary school lessons in production Now
- ❑ Users nearly 1/3 of all US Students
- ❑ Extending into Elementary and Secondary School Grades
- ❑ Delivery: Roughly one grade-worth of material per calendar year

# Anatomy of Curriculum Work Items

Grade 7



# Development Teams: Pivotal

The screenshot displays the Pivotal Tracker interface for a project titled "Student features: Manipulatives". The interface is organized into three main columns: "Current Iteration/Backlog", "Blocked", and "Done".

- Current Iteration/Backlog:** Shows 10 items. The top item is "Super Categorize: Convert to Vue (LS)" with a "Deliver" button. Other items include "Super Categorize: Convert Visual Grading to Vue (LS)", "Geometry: Convert to Vue (TS)", "Super Label an Image: Convert to Vue (TS)", "compare\_sides: convert to Vue (TS)", "Vue", and "Fraction Area Model Token: Token should align with the number line partition 2017 task when 'alignWithNumberLine' option is used (GM)".
- Blocked:** Shows items that are currently blocked. Examples include "Students unable to advance past elementary number\_line tasks on iOS 9 and iOS10 on Safari (TS)", "equation\_fill\_in: Inequalities with variables as denominators are incorrectly graded (GM)", "MSFI: users see a disabled exponent key until at least 1 character is entered within the input (g8m7)", "super\_matching: option to scale tokens (super\_matching)", "Coordinate\_plane: Users can plot using only the keyboard (coordinate plane plot, g8m1, keyboard accessibility)", and "Protractor: Update right angle measurement outline to accessible blue (TS)".
- Done:** Shows completed items. Examples include "Probability tree token: token collapses when returning to TG with back button [low prio] (TS)", "Transformation: Users can perform a reflection over an admin-specified line (LS)", "Coordinate plane: User can see smaller pre-populated points (TS)", and "Coordinate plane: User can see purple and orange points (circle and square points) (TS, GM)".

- ❑ Started with Scrum
- ❑ Using Pivotal Tracker
- ❑ Sprints did not work well
  - significant unplanned work
  - Significant Fixed-date work
  - Significant coordination with other specialist teams (academics, video production, instructional designers)

# Instructional Designer Teams: Asana

The screenshot shows an Asana project board for 'Grade 6 Mission 8'. The board is organized into columns representing different sections of the curriculum: (no section), Data, Variability, and ...; Dot Plots and Histograms; Mean and MAD; and Median and IQR. Each column contains task cards for lessons, such as 'Lesson 1 - Got Data?', 'Lesson 3 - Representing Data Graphically', 'Lesson 9 - Interpreting the Mean as a Fair Share', and 'Lesson 16 - Box Plots'. The 'Lesson 16 - Box Plots' task card is highlighted, and a detailed view of this task is shown on the right. This view includes subtasks categorized under 'Writing', 'Prep for shoot', and 'Post-shoot', with specific tasks like 'Author writes Lesson', 'Send illustration requests to designer', and 'Assets (ABs, animation notes) sent to Fortnight'.

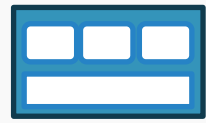
- ❑ Largely Date-Driven
- ❑ Using Asana
- ❑ Many disparate tasks to coordinate
- ❑ Multiple external stakeholders

# Excel Timeline Planning

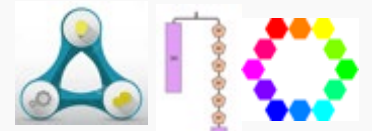
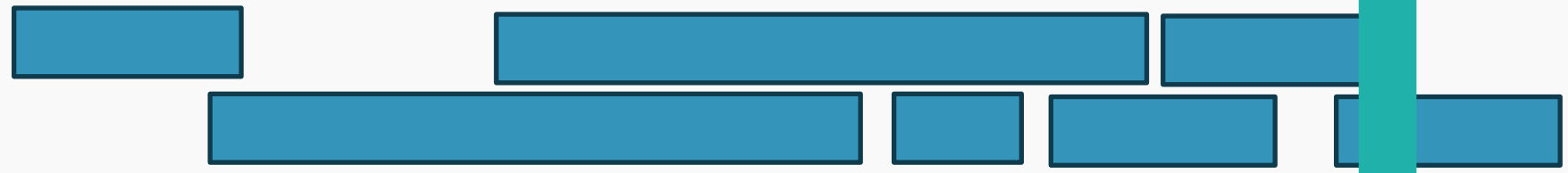
	Author	AMR PPT	SE/LD Lo-fi	Script/AB	Shoot	AMR QA	SE/LD QA	permutations	goal 9/13	uploaded				
L1	AP/AMR	2/1/2019	2/21/2019	3/6/2019	3/9	4/9	4/16	n/a	Ready	yes				
L2	SM/AS	2/4	2/22/2019	3/6/2019	3/9	4/10	4/17	n/a	Ready	yes				
L3	SM/AS	2/5	2/25/2019	3/6/2019	3/9	4/11	4/23	n/a	Ready	yes				
L4	LZ	2/7	2/28	3/13	3/16	4/12	4/26	7/11 - SE	Ready	yes				
L5	LZ	2/8	3/1	3/13	3/16	4/16	4/30	7/11 - SE	Ready	yes				
L6	LZ	2/11	3/4	3/13	3/16	4/17	5/2	7/12 - LD	Ready	yes				
L7	AP/LZ	2/14	3/7	3/20	3/23	4/22	5/6	7/12 - LD	Ready	yes				
L8	HD	2/15	3/8	3/20	3/23	4/24	5/7	7/18 - SE	Ready	yes- need a pickup				
L9	HD	2/19	3/8	3/20	3/23	4/25	5/8	7/18 - SE	Ready	yes- need a pickup				
L10	LZ	2/25	3/15	3/27	3/29	4/26	5/9	7/19 - LD	Ready	yes				
L11 (LL)	LZ	2/26	3/18	3/27	3/29	4/30	5/10	7/19 - LD	Ready	yes				
L12	LZ/AMR	2/27	3/19	3/27	3/29	5/4	5/13	7/25 SE	Ready	yes				
L13	HD	2/28	3/21	4/3	4/4	5/3	5/14	7/25 - SE	Ready	yes				
L14	SM/AS	3/1	3/25	4/3	4/4	5/6	5/24	7/26 - LD	yes	yes				
L15	SM/AS	3/4	3/26	4/3	G6M6 QA Comments									
L16	LZ	Optional Lesson - Materials only			G6M6	Author	AMR/SE/LD Lo-fi	Script/AB	Shoot	SE/LD QA	Topic	by	goal 4/17	uploaded
L17	HD	3/7/2019	3/29	4/10	L1 (Lab)	JX	9/30	10/24	11/1 - Lorenzo	11/25	A		ready	yes
L18	HD	3/8	4/1	4/10	L2	JX	9/30	10/24	11/1 Lorenzo	12/2	A		ready	yes
L19	AMR	Teacher Instruction Only - Materials only			L3	HD	9/30	10/28	11/1 Brian	12/2	A		ready	yes
					L4	HD	10/7	10/28	11/1 Brian	12/2	A		ready	yes
					L5	HD	10/7	10/28	11/1 Brian	12/9	A	QA 2 1/27	ready	yes
					L6	MRC (LZ)	10/7	11/6	11/9 - Rachel	12/9	B	QA 2 2/3	ready	yes
					L7	MRC (LZ)	10/15	11/6	11/9- Rachel	12/9	B	QA 2 2/3	ready	yes
					L8	MRC (LZ)	10/15	11/6	11/9- Rachel	12/16	B		ready	yes
					L9	LP	10/15	11/7	11/9 Perri	12/16	B	QA2 2/17	ready	yes
					L10 (Lab)	LP	10/21	11/7	11/9 Perri	12/16	B	QA2 2/17	ready	yes
					L11	LP	Optional Lesson - Materials only			12/16	B		ready	n/a
					L12	LL	10/21	11/7	11/9 Perri	1/6	C	QA2 2/24 (twr)	ready	yes
					L13	LL	10/28	11/18	11/22 - Melissa	1/6	C	QA2 2/24 (twr)	ready	yes
					L14	LL	10/28	11/18	11/22 - Melissa	1/6	C	QA2 2/24	ready	yes
					L15 (Lab)	LP	11/4	11/19	11/22 - Jabali	1/13	C	QA2 3/9	ready	yes
					L16	JX	11/4	11/19	11/22 - Jabali	1/13	D	QA2 3/9	ready	yes
					L17	JX	11/4	11/19	11/22 - Jabali	1/13	D		ready	yes
					L18	LL	Optional Lesson - Materials only			1/13	D		ready	

# Challenge: Coordinating Dependencies

GRADE  
7



Software Platform



Animation "Manipulatives"



Videography



Publishing

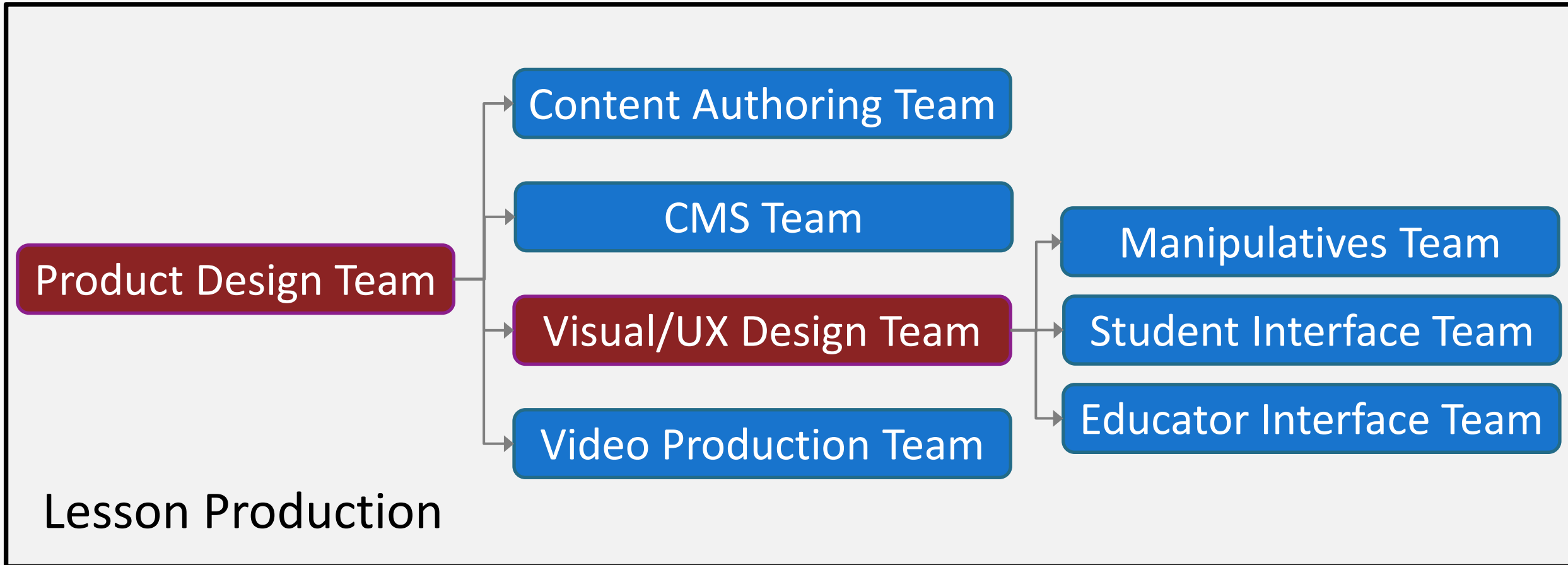


Onboarding School Districts





# Visualizing Value Streams: Lesson Production



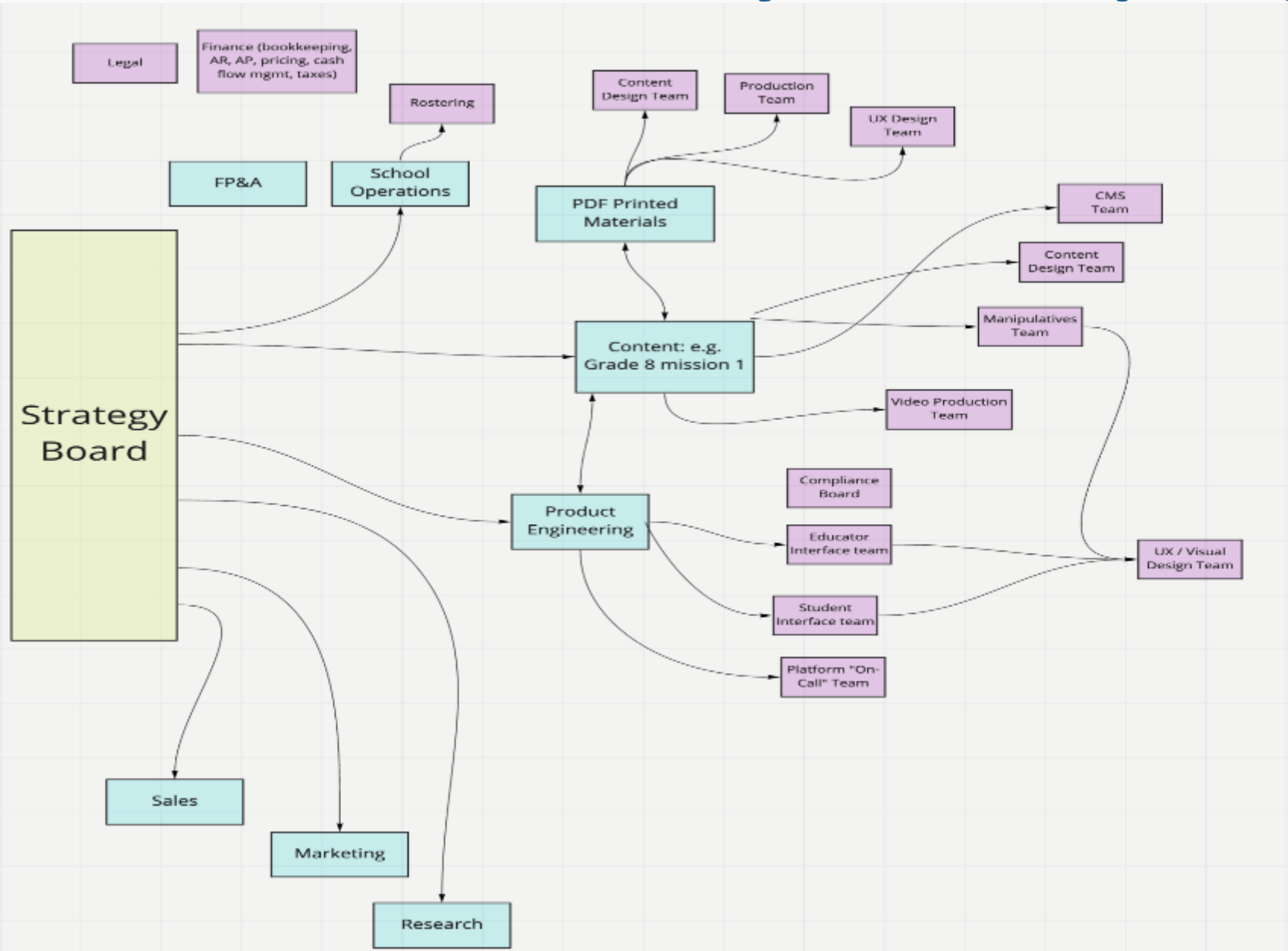
LEGEND:

Upstream Team  
(Discovery Kanban)

Downstream Team  
(Delivery Kanban)



# Work Systems Topology



- Big Picture
- Teams in Purple
- Need to coordinate?  
Blue
- Strategy ties value streams to mission, annual goals, OKRs

# Flight Level Two Board: Coordination Across Depts



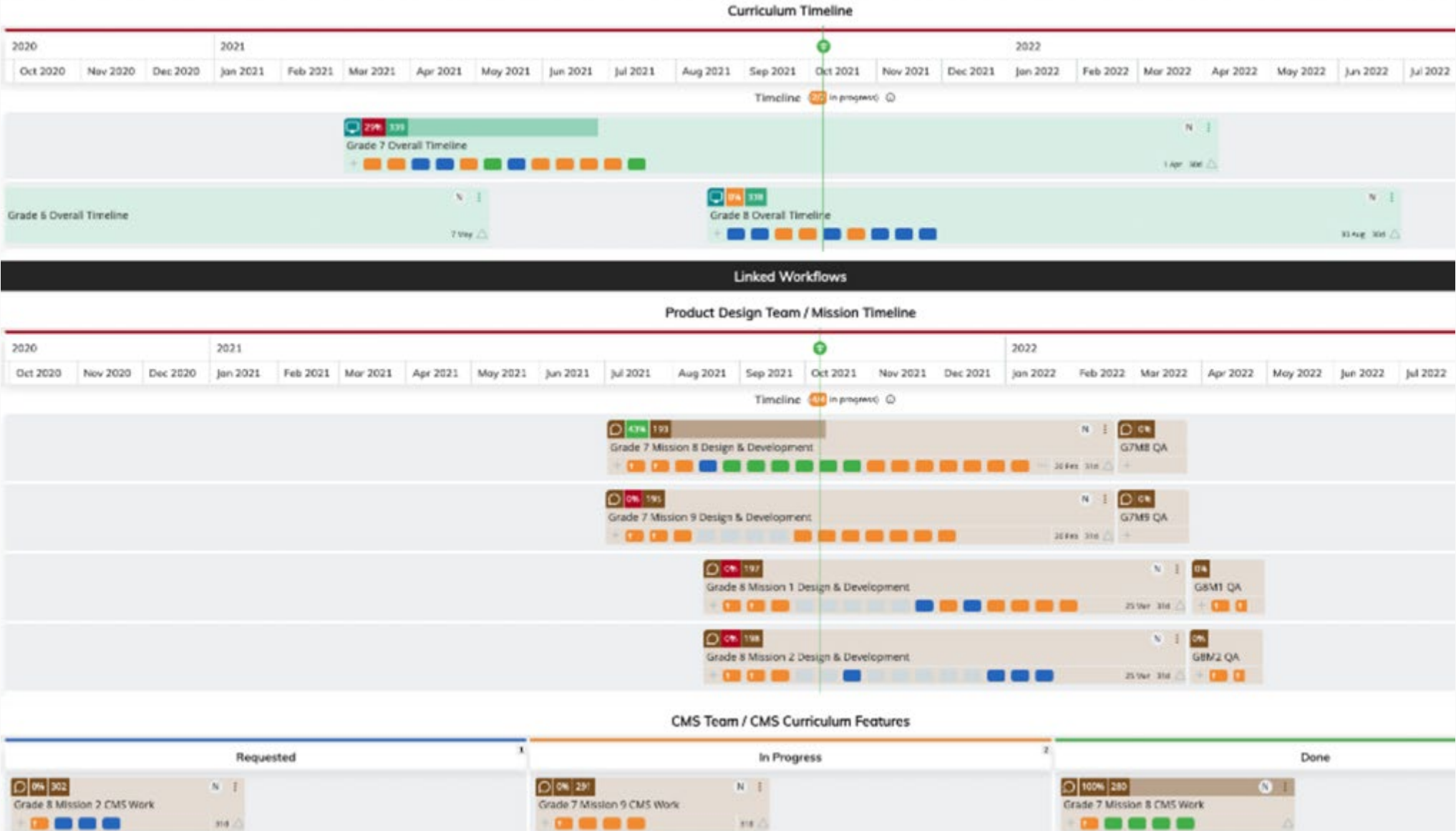
## Software Teams

- CMS Team
- Interface Teams
- Platform Teams
- UX Design Team

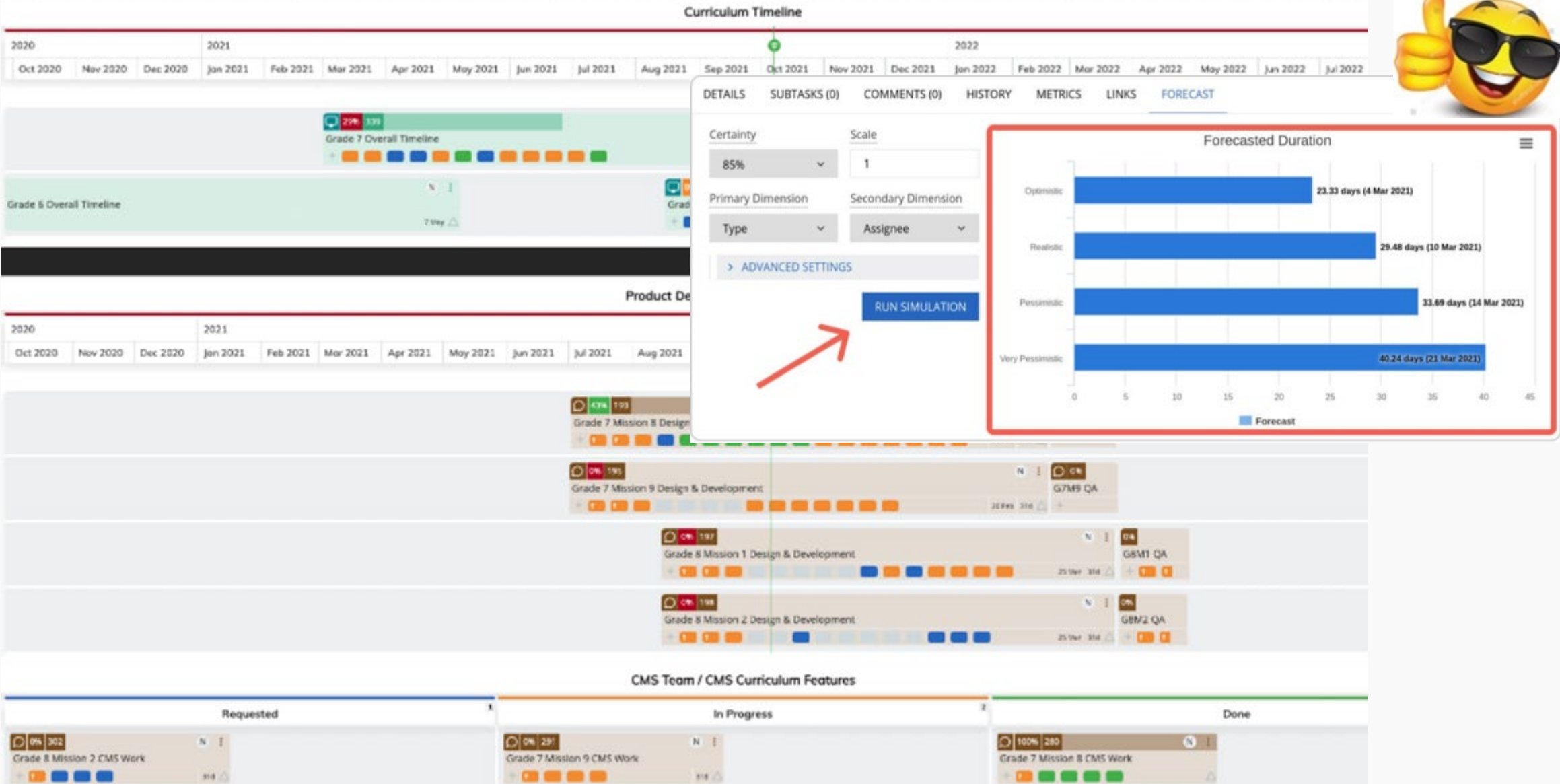
## Production Teams

- Videography
- Physical Manuals
- State/Local Coordination
- Change Management

# Flight Level Two Board: Coordination Across Depts



# Flight Level Two Board: Coordination Across Depts



# 3. Small Consultancy Example



# Customer Segments

## NYC



## Commercial



## General Public



## Federal



U.S. AIR FORCE



# How We Get Customers

## Inbound Marketing



## Formal Requests for Proposal



Oral Presentation



Traditional



Tech Challenge

## Personal Recommendations

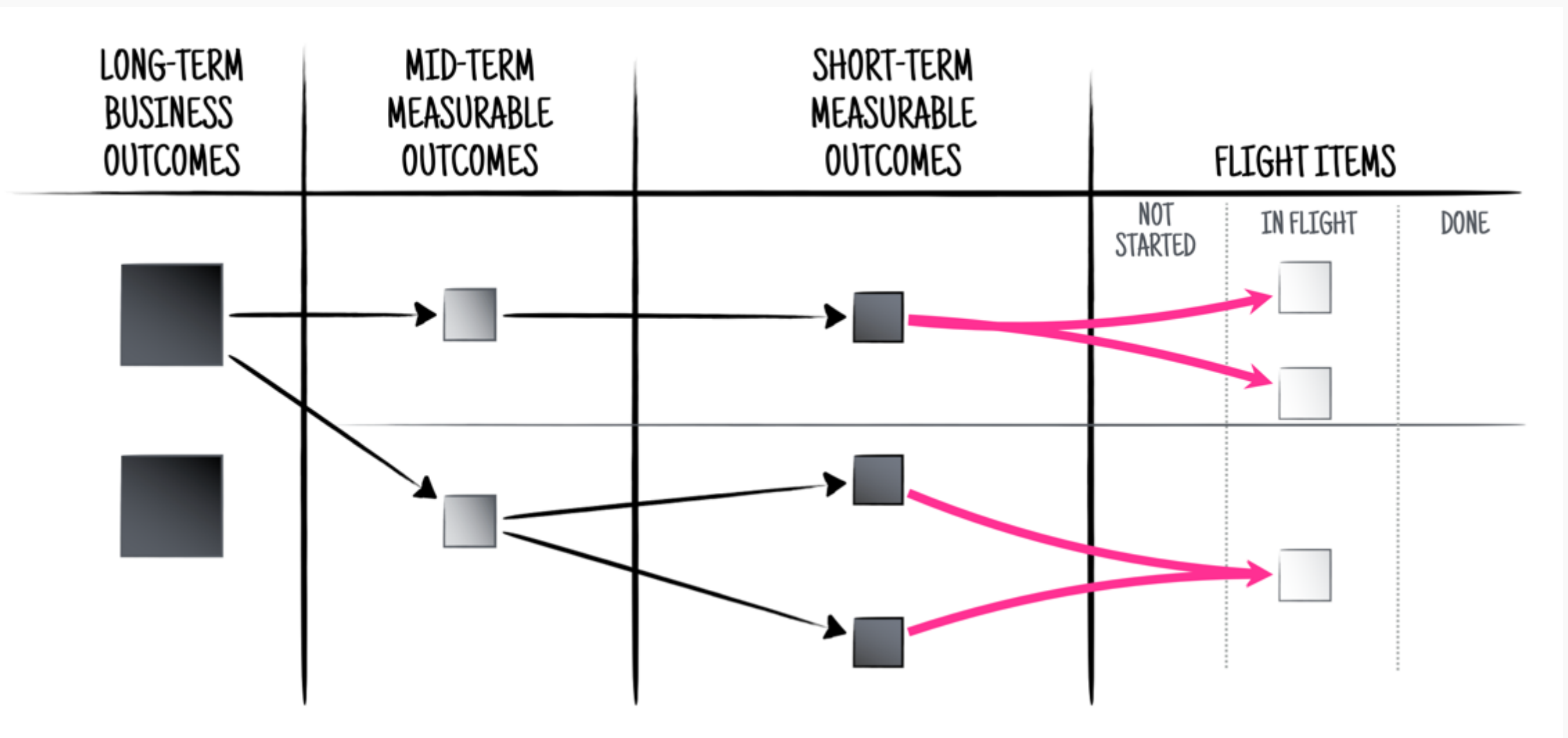


## Non-Competitive Procurements





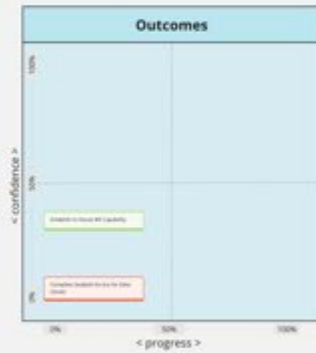
# The Core of a Flight Level Three Board



# Flight Level Three Board: Consulting Company Strategy

## Long-Term Business Outcomes

2 years: Q2 2024



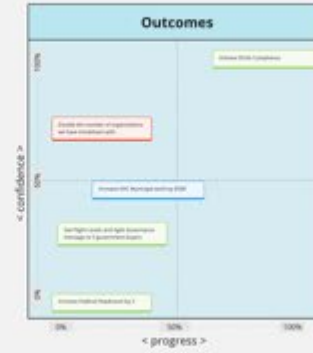
## Medium-Term Business Outcomes

By end of 2022

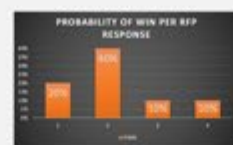


## Short-Term Business Outcomes

3 months: End Q2 2022



Result	#
Wins	2
Losses	10
Pending	10
Canceled	2
<b>Total</b>	<b>24</b>



Running Average PWIN



Target Organization	No-MinShare	Dead	Scale	Recent Contact	Active Capture	Current Client
FBI CJIS					X	X
SSA OIG					X	
AFLCMC/BES			X			
USPTO			X			
NYCDOSS						X
NYCHA					X	
NY DCWP					X	
NYC DVCD			X			
NYFD		X				
NYLife						X
Bright Power			X			
Zearn			X			
HBO						
Bloomberg	X					

Total Revenue and trends

Profitability and trends

Internal investment trends both \$\$ and %

Number of client trends

Client concentration trends

Industry concentration trends

### FINANCIAL METRICS

- 1) revenue trends
- 2) profitability trends
- 3) internal investment trends

### INTERNAL METRICS

- 1) number of students per quarter
- 2) number of trainings per quarter
- 3) profitability of trainings trend
- 4) internal vs external cost per quarter
- 5) voluntary turnover % per quarter
- 6) Proactive operational metric
- 7) customer engagement trend
- 8) number of keywords trends

### Federal Market

#### Why?

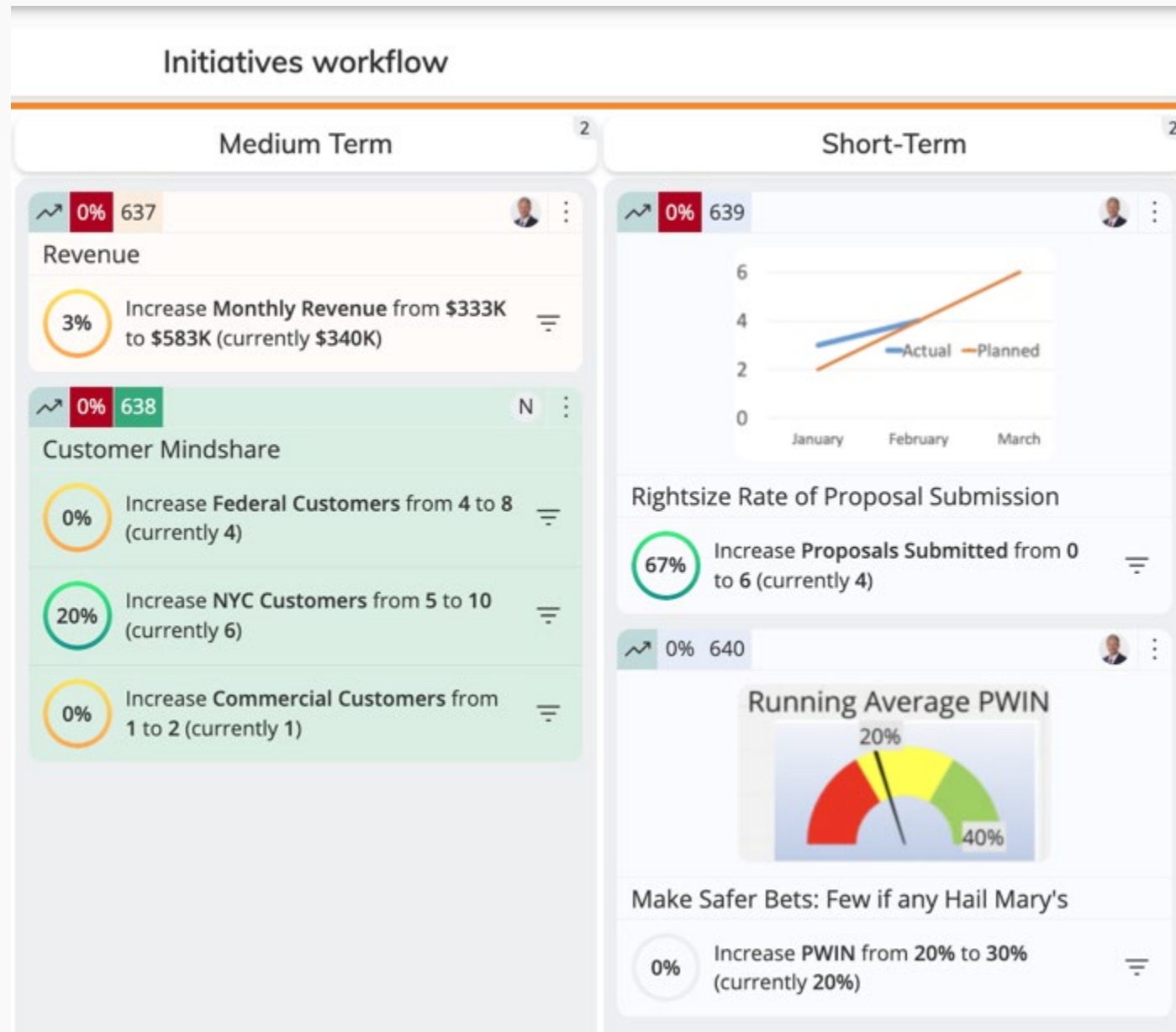
1. Federal contracts often last five years and are rarely terminated early
2. The Federal marketplace is countercyclical with the commercial market. Recessions typically have no immediate effect on Federal budgets and if they do it is typically offset by several years. Often the

### NYC Municipal Market

#### Why?

1. NYC is local, so it is convenient for us to meet with our customers and staff
2. NYC contracts often get extended, so work can stretch for multiple years.
3. NYC agencies often use the federal GSA MAS contract vehicle, which we already have

# Partial FL3 Board in BusinessMap



# 6. Key Takeaways

## Q & A

# Challenges and Solutions

**No agile strategic portfolio management**

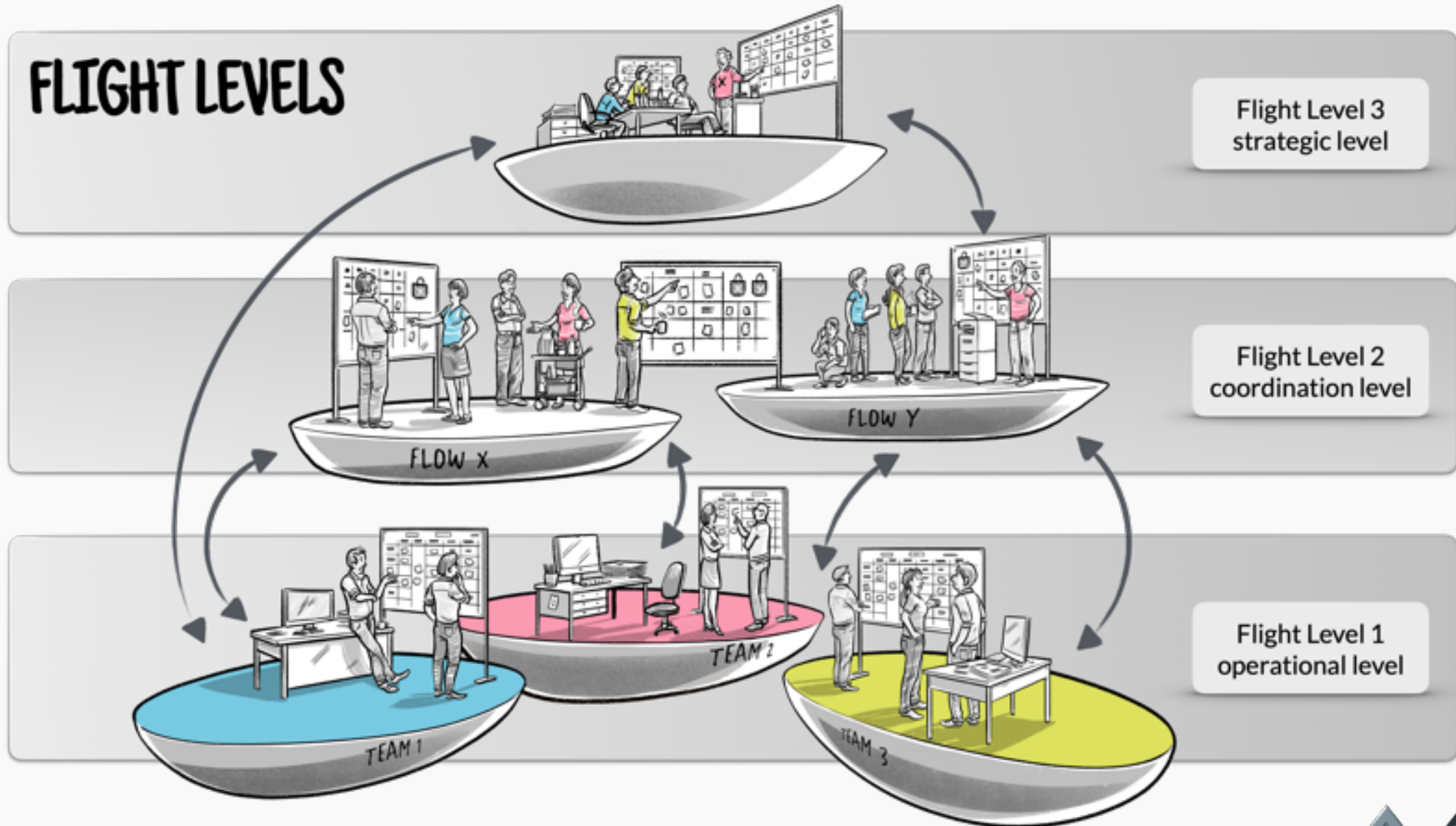
**No end-to-end management of the value streams**

**Few agile interactions between teams**

# Challenges and Solutions


<b>No agile strategic portfolio management</b>	<b>Flight Level Three: Visualize Organizational Strategy and connect with Execution</b>
<b>No end-to-end management of the value streams</b>	<b>Flight Level Two: Coordinate and Align Efforts, Teams, Programs, Services with Flight Level Two</b>
<b>Few agile Interactions between teams</b>	<b>Flight Level Systems Architecture: Connect Flight Levels and Design Agile Interactions</b>

# Flight Levels Thinking Model





# Five Activities

- 
1. Visualize situation
  2. Create focus
  3. Establish agile interactions
  4. Measure progress
  5. Improve

# Thank you



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