



SPACE  
CAMP

# Lessons in Overcoming Agile Team Challenges

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~image from portablepress.com

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# Overview

**1**

**Software  
Factory  
Overview**

**2**

**Managing  
Team Cognitive  
Load**

**3**

**Managing  
Scarce  
Resources**

**4**

**Managing  
Team  
Performance**

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# Defense Innovation Board



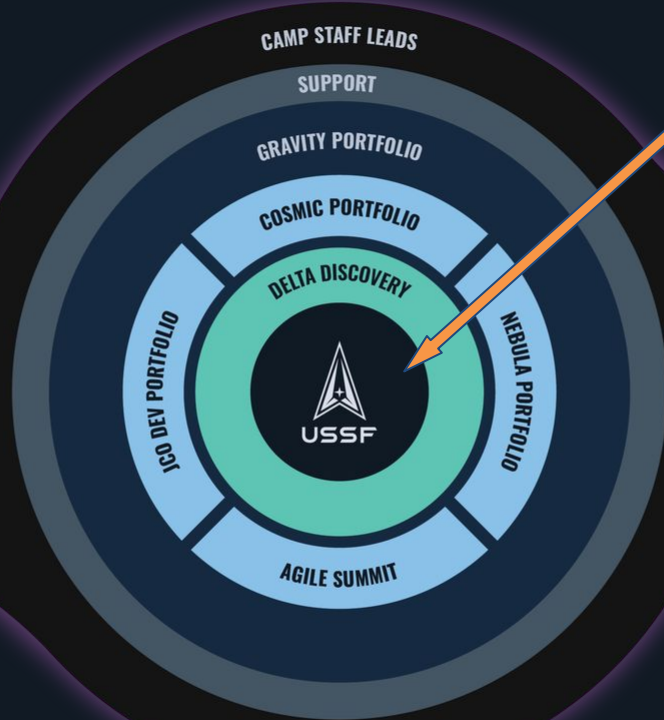
~images from wikipedia

## Software Factory (Engineering) Ecosystem - <https://software.af.mil/>



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# CAMP ORG STRUCTURE



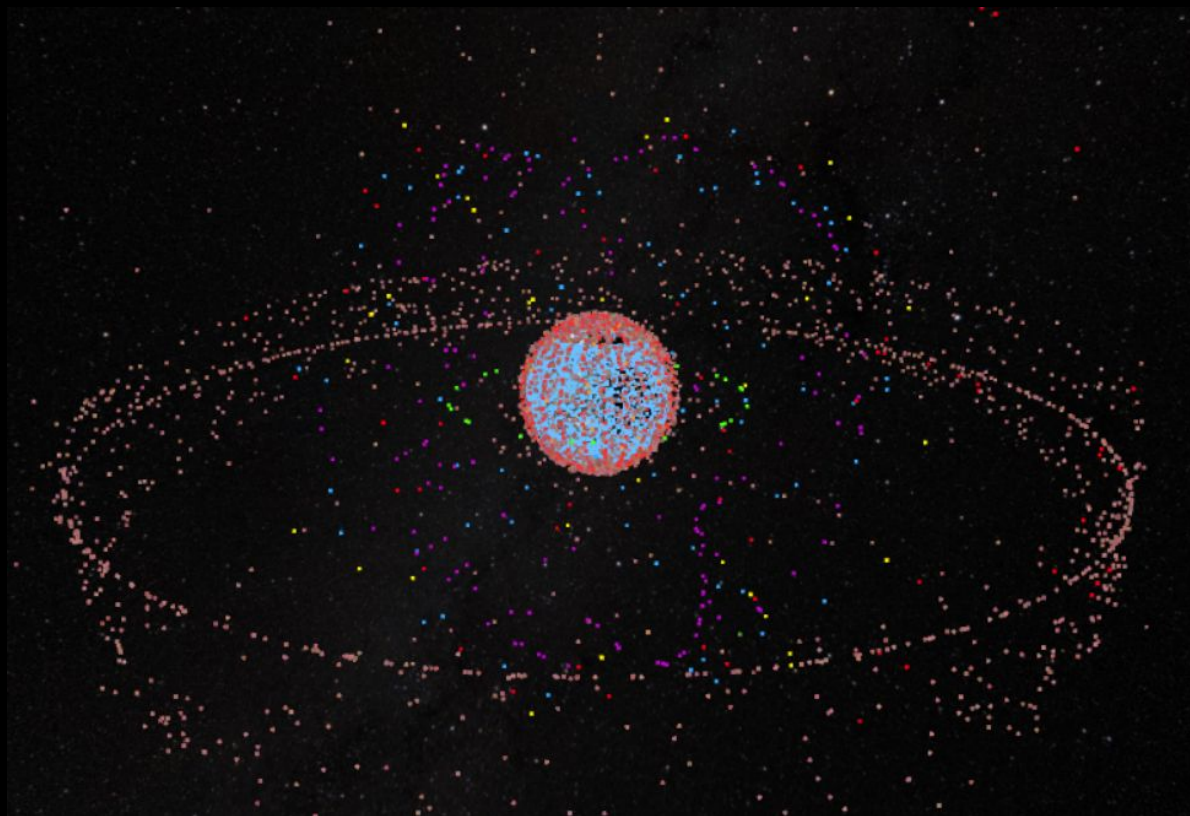
Direction of Support\*



*\*Don't confuse communications channels with hierarchical structure.*



# Space is Crowded



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# Managing Team Cognitive Load

3 Types:

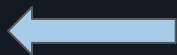
Intrinsic

Extrinsic



~image from unsplash.com

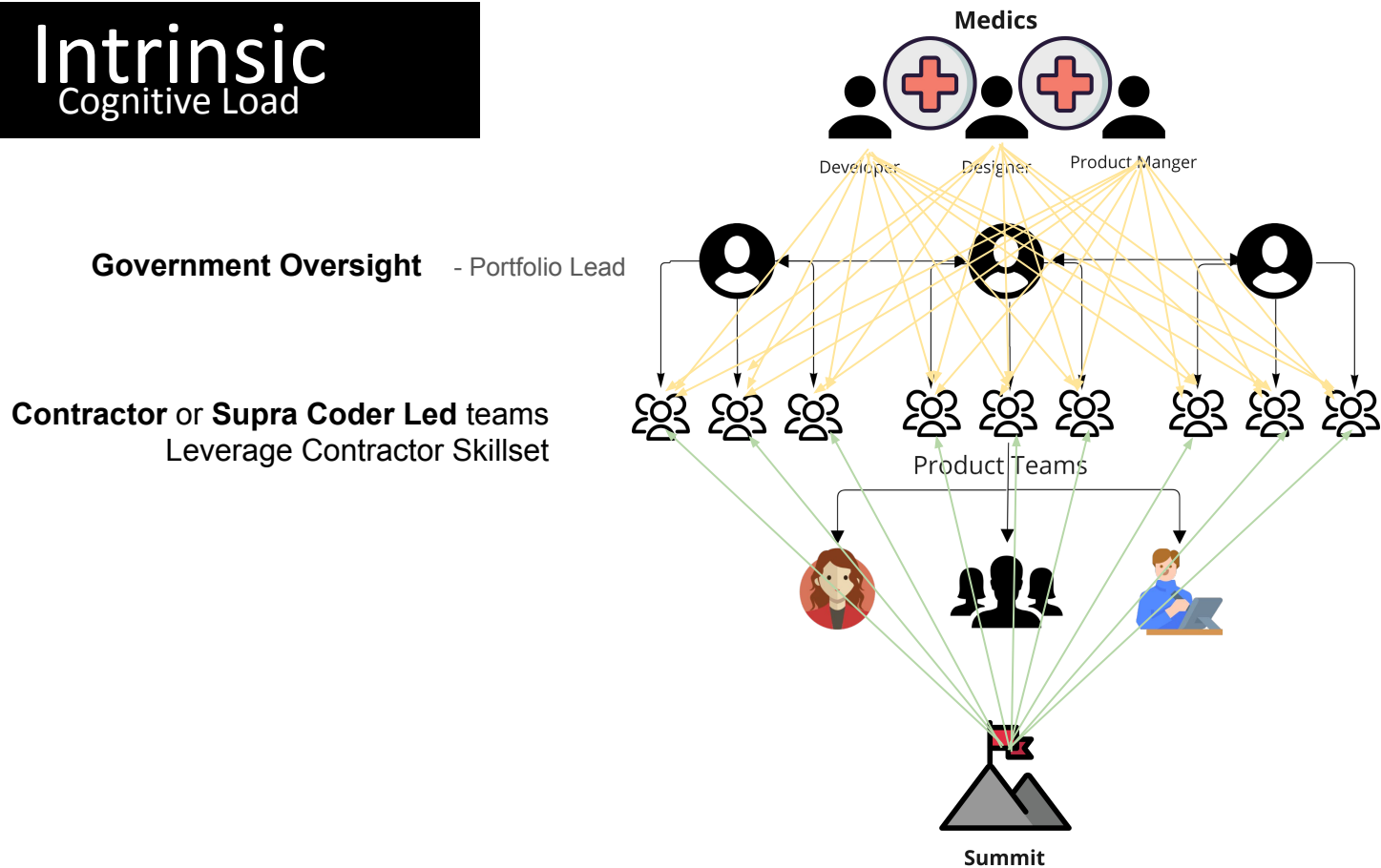
**Germane**



Focus here & automate the rest

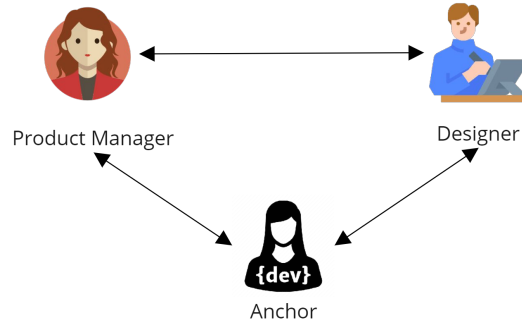
# Intrinsic

Cognitive Load



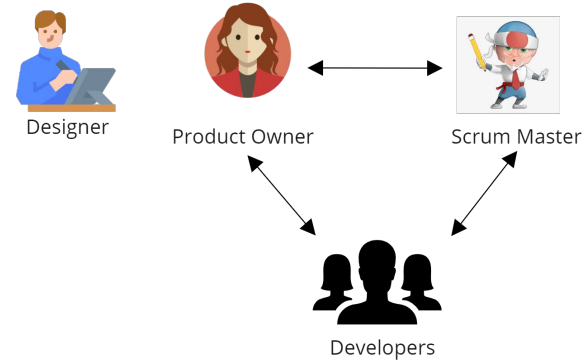
# Types of Team Structures

## Balanced Teams



Team Size: 6-8  
Iteration length: 1-2 Weeks

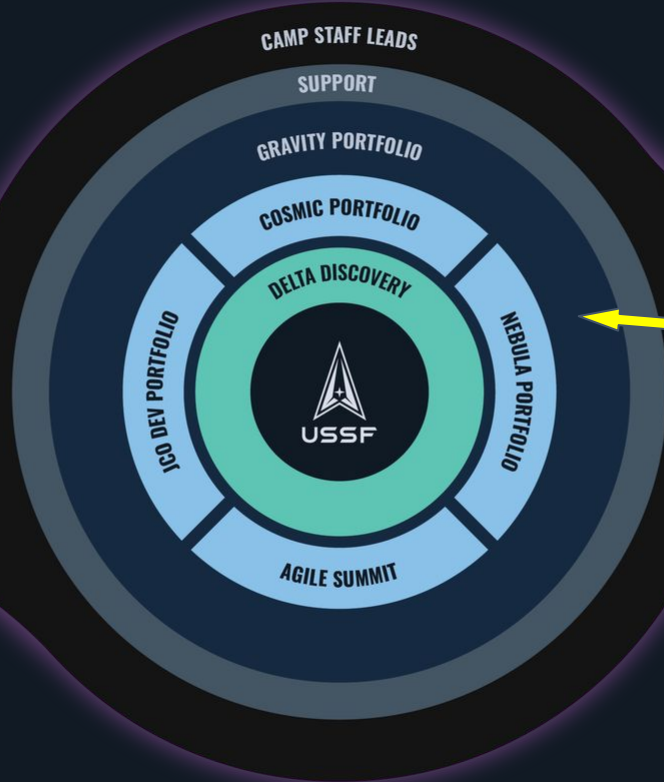
## Scrum Teams



Team Size: 10-16  
Sprints: 2-3 Weeks

# CAMP ORG STRUCTURE

Extrinsic  
Cognitive Load

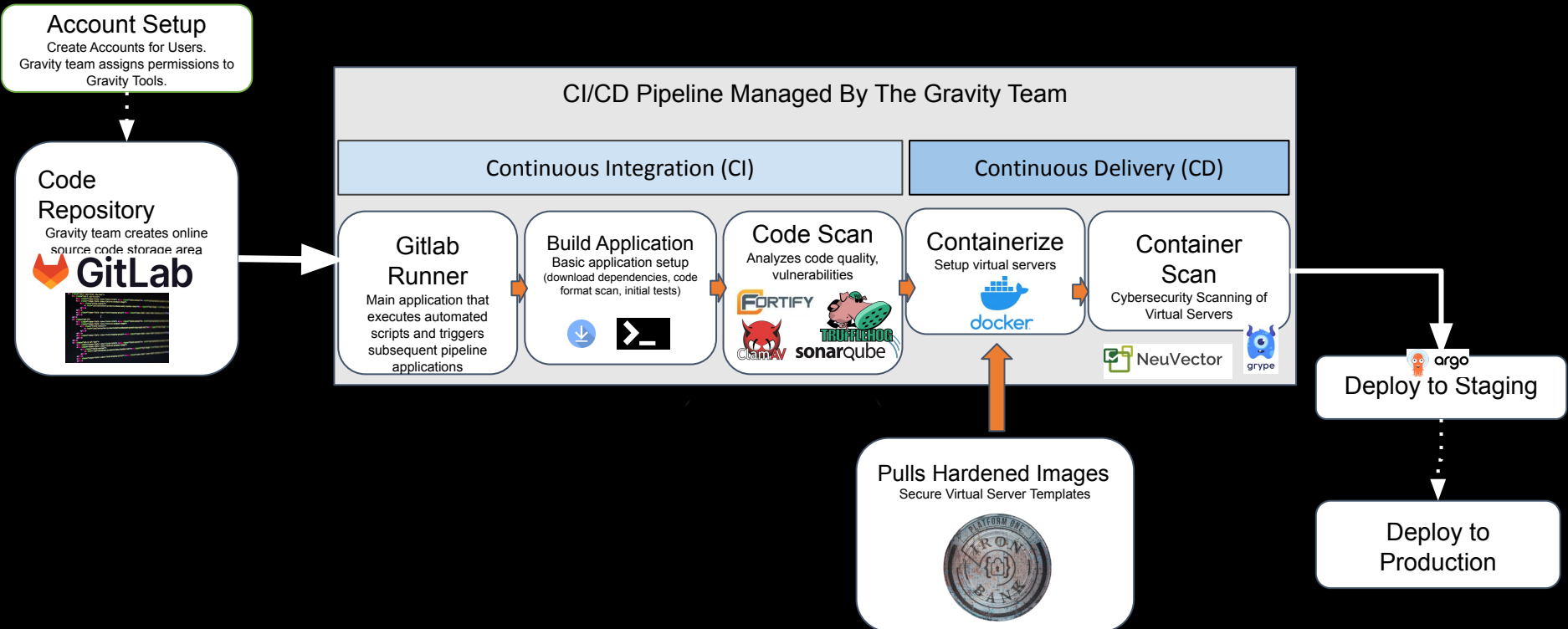


Platform



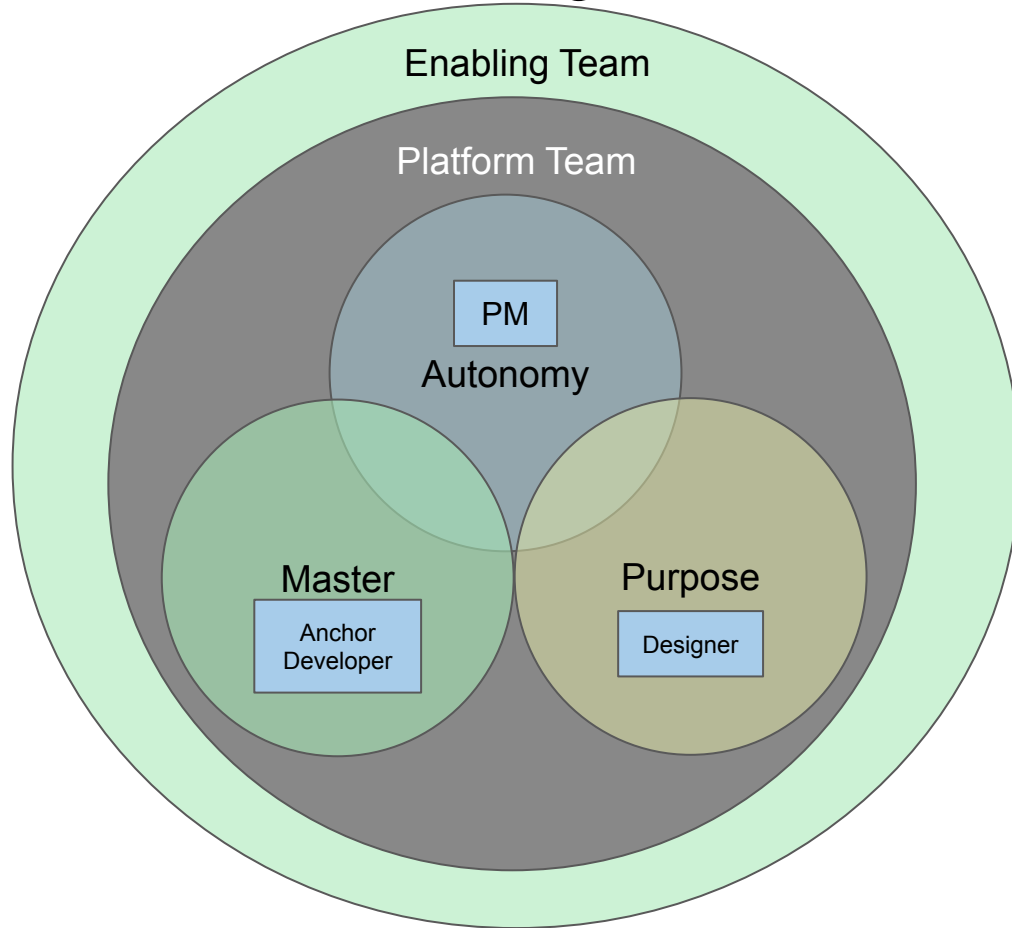


# Pipeline Process Flow



Teams Focus on:  
**Germane Cognitive Loads** & automate the rest  
( value added thinking)

# Reduced Team Cognitive Load



## **PM**

Creates the environment to maximize autonomy

## **Designer**

Determines the purpose by understanding what the end-user values

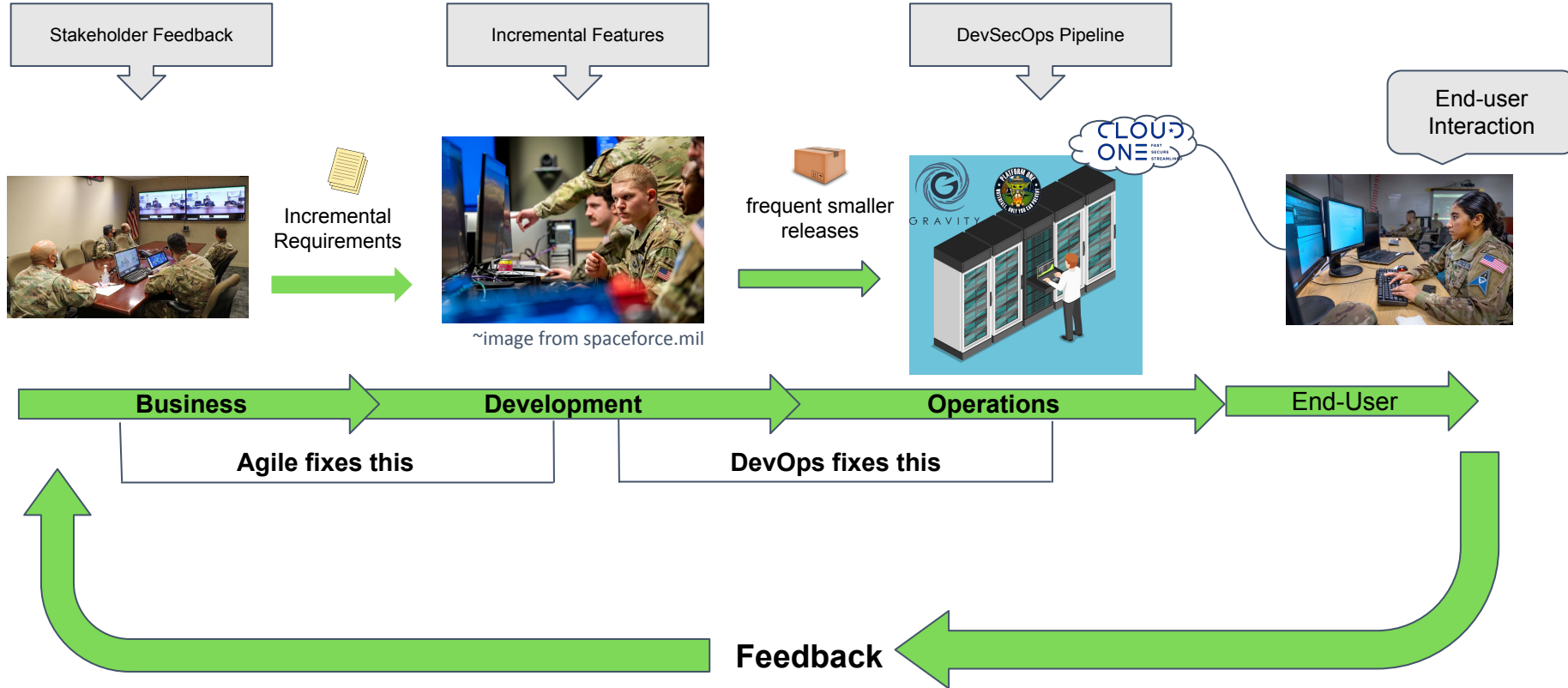
## **Anchor Developer**

Focus on mastery of creating solutions.

## **Platform Team**

Abstracts away the extrinsic cognitive load.

# Software Factory Development Cycle





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What is a scarce resource within the DoD?

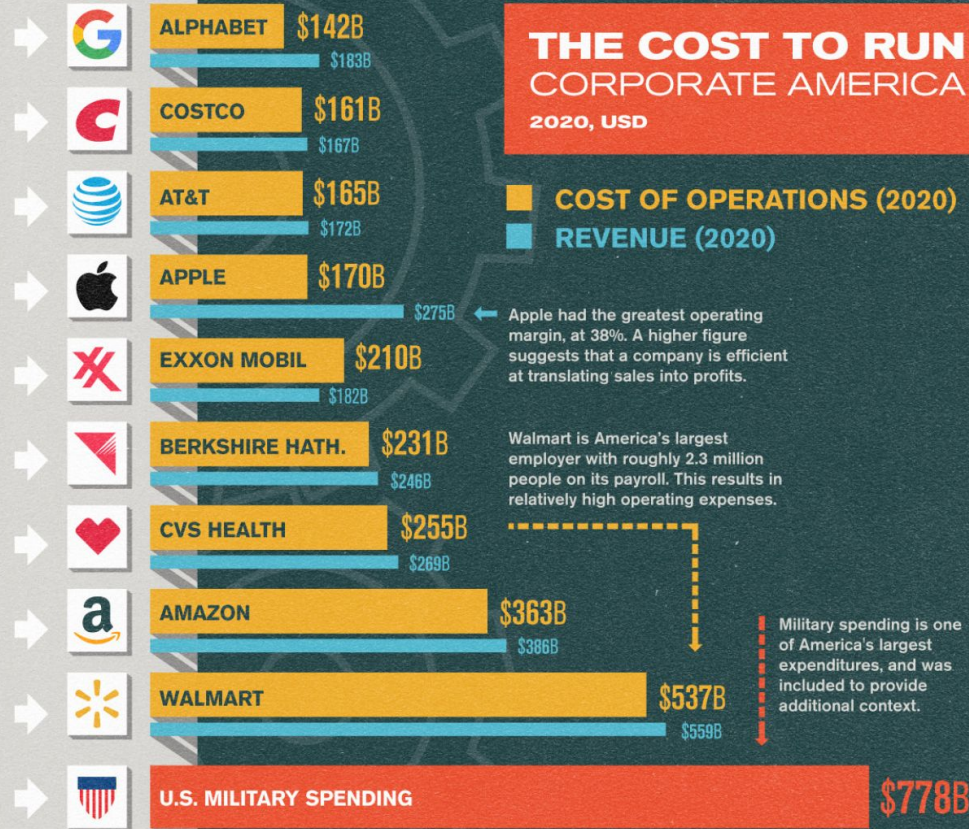
**Budget?**



# THE COST TO RUN CORPORATE AMERICA

2020, USD

■ **COST OF OPERATIONS (2020)**  
■ **REVENUE (2020)**



Cost of operations includes selling, general & administrative expenses (SG&A) and cost of goods sold (COGS).

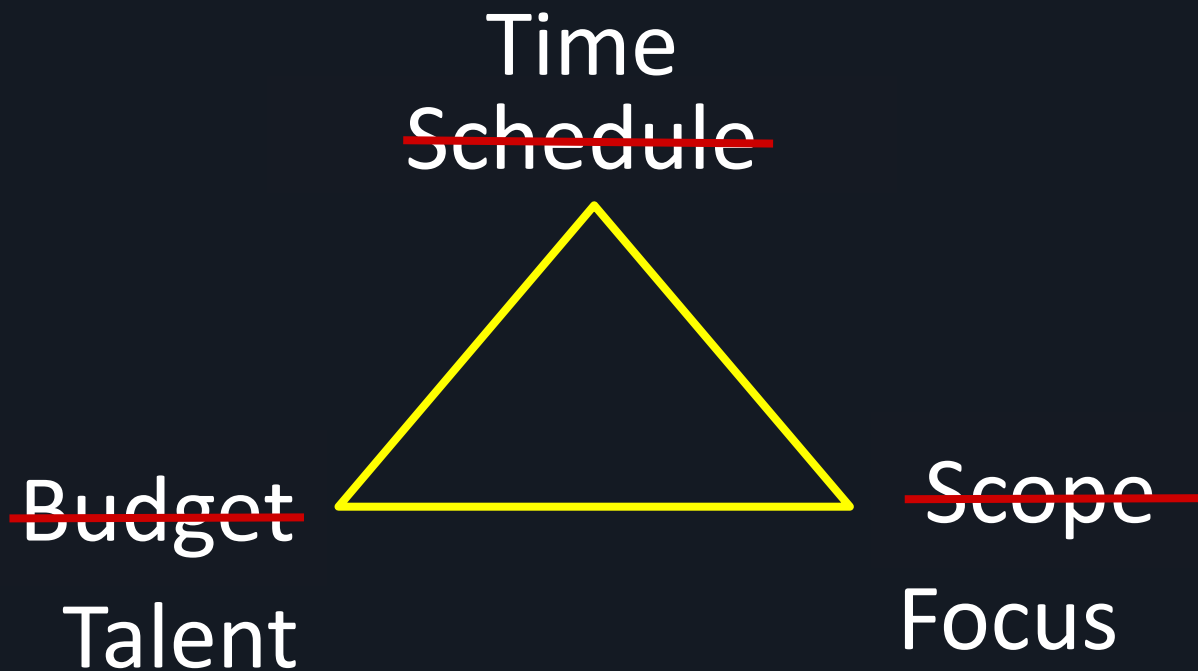
Financial data was collected from each company's most recent fiscal year end.

SOURCE: SEC (2021)



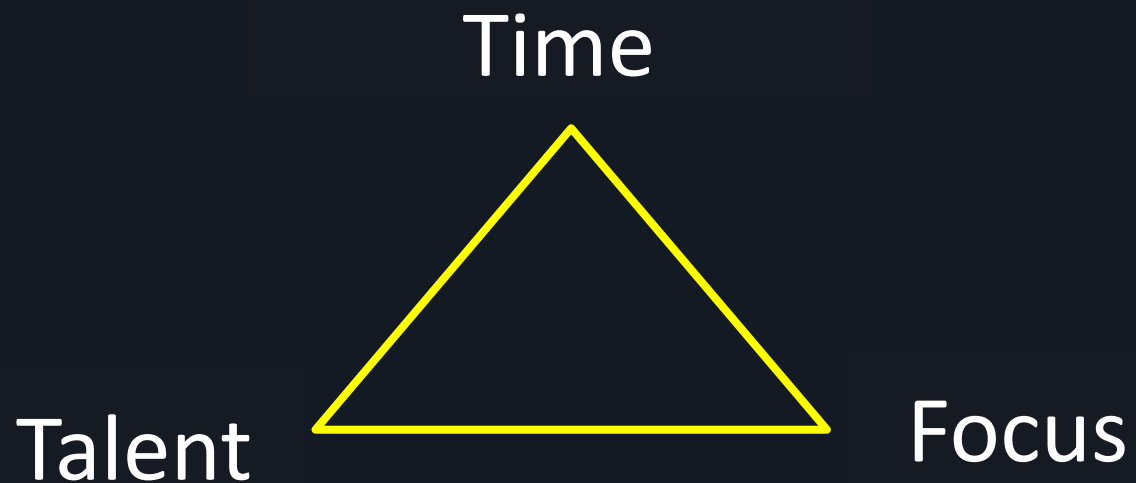


# Managing Scarce Resources



~image from unsplash.com

# Managing Scarce Resources



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When is the best time to determine team performance?

At the beginning

# Team Norming Sessions

Success Definition

Work Flow

Cadence

Lexicon

Work Distribution

Manifesto





# Team Norming Sessions

Success Definition

Work Flow

Purpose

Individual & Team Goal Alignment

Cadence

Lexicon

Definition

Work Distribution

Manifesto

I am at my best \_\_\_\_\_

I am at my worst \_\_\_\_\_

# Team Norming Sessions

Success Definition

Work Flow

Schedule

Events / Rituals

Cadence

Lexicon

Tempo

Work Distribution

Manifesto

Sustainability

# Team Norming Sessions

Success Definition

Work Flow

Defined Roles/Responsibilities

Maximize Strengths

Cadence

Lexicon

Improvement Opportunities

Work Distribution

Manifesto

Documentation Work

Toilsome Work

# Team Norming Sessions

Success Definition

Work Flow

Communications

Needs / Expectation

Cadence

Lexicon

Interruptions

Work Distribution

Manifesto

Conflicts

Feedback

# Team Norming Sessions

Success Definition

Work Flow

Tech Stack

Tools

Cadence

Lexicon

Jargon

Work Distribution

Manifesto

Education

# Team Norming Sessions

Success Definition

Work Flow

Working Agreement

Cadence

Lexicon

Work Life Balance

Special Conditions

Work Distribution

Manifesto

Additional Norms

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Tech  
Incubator

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**Managing  
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- Intrinsic
- Extrinsic
- Germane

3

**Managing  
Scarce  
Resources**

- Time
- Talent
- Focus

4

**Managing  
Team  
Performance**

Norming  
Sessions

# Questions



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