

# *Highway to the Danger Zone*

"Why your digital transformation effort will Not produce the results you think"

# Introductions



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Leading the way to the next frontier in DevOps...

Add Instructions for how to use mentimeter

## Digital Transformation

“ Digital Leaders move four times faster with twice the power of their peers ”

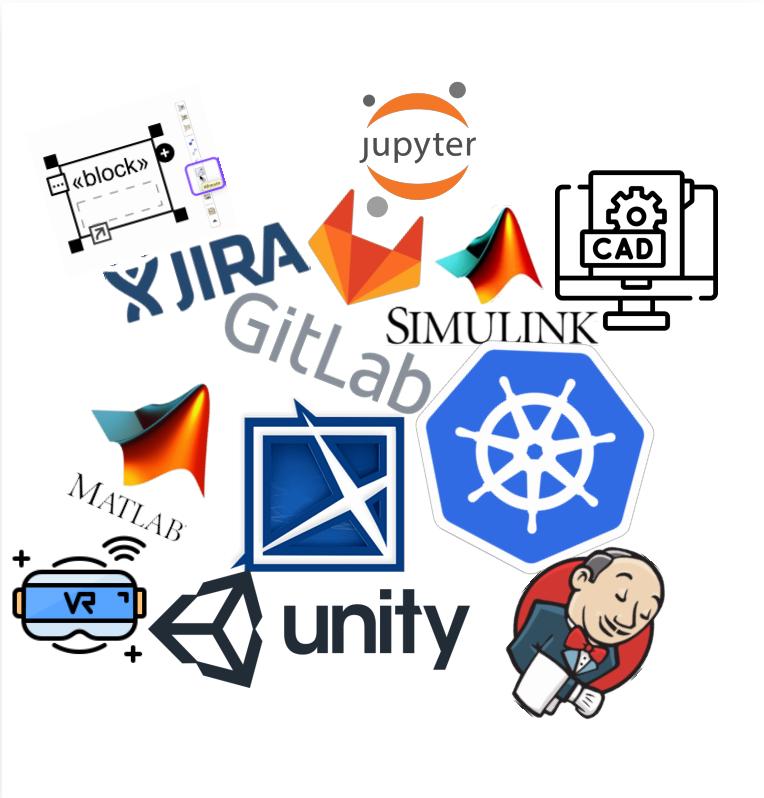
- McKinsey & Company



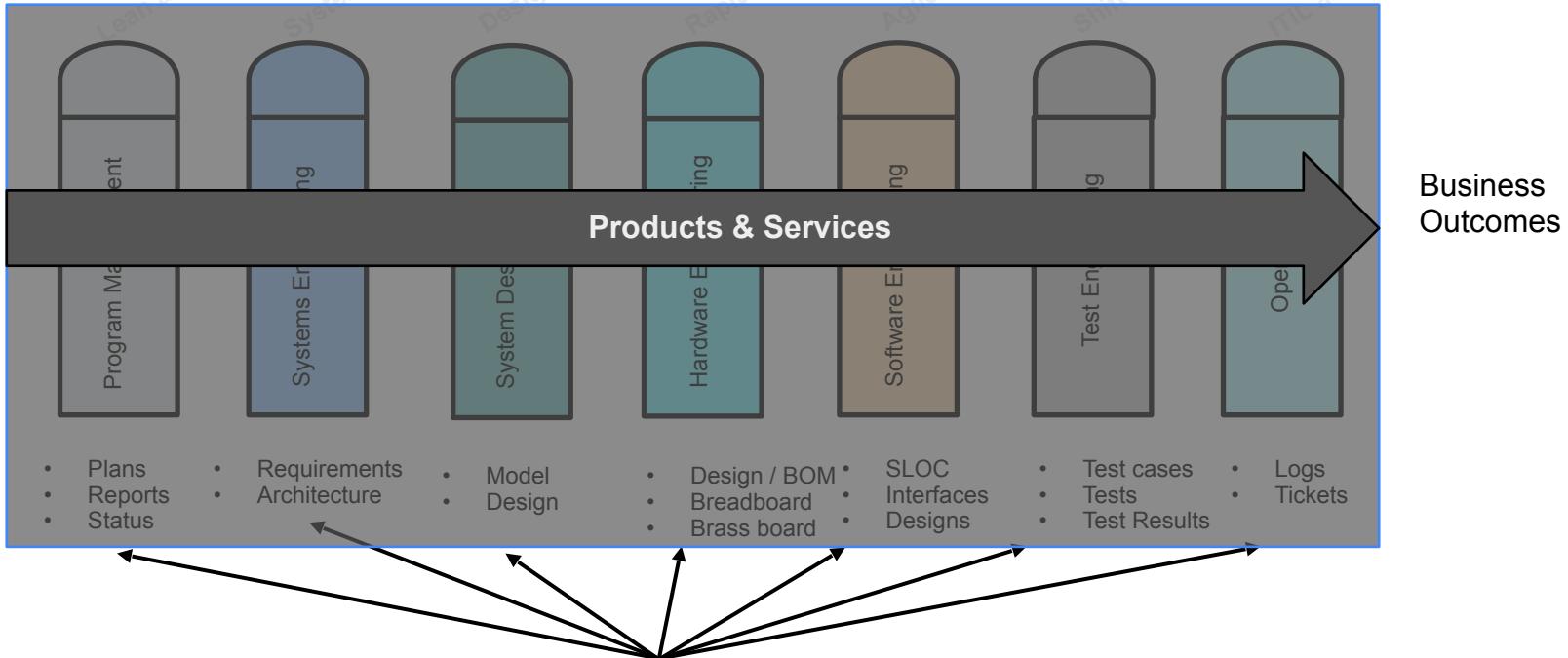
I will have 2 scoops of digital transformation in a DevSecOps Cone!

# Ready, Set Transform

Read all the books



# The Flow of Value Impacts your results





# **Why aren't we Succeeding**

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- **Strategy**
- **Structure**
- **Process**
- **People**
- **Technology**

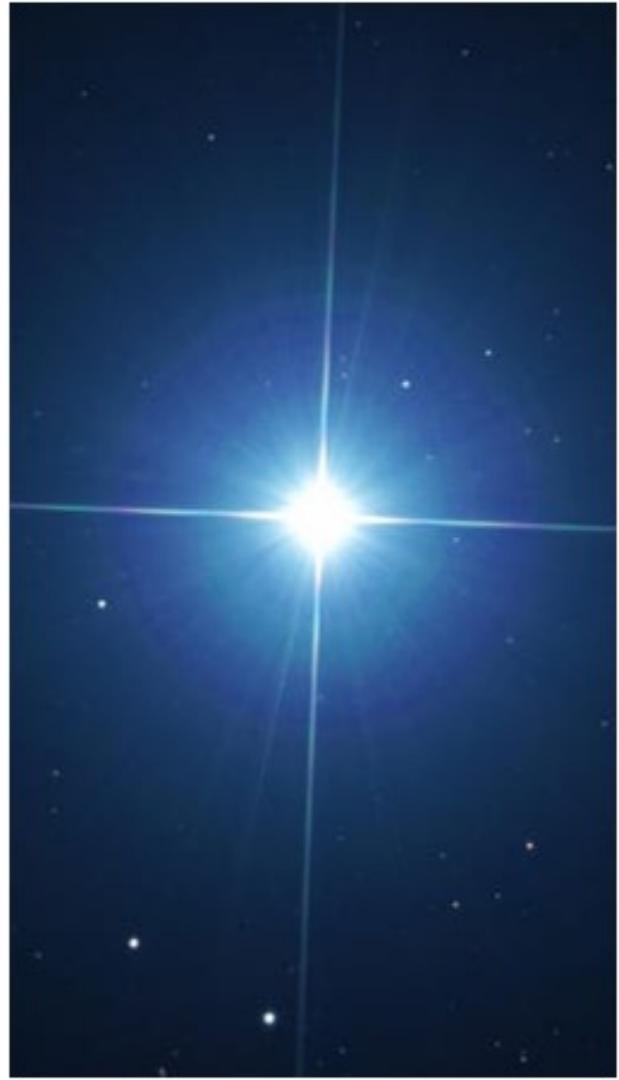
# **Single Aligned Strategy**

Digital Transformation means different things to different groups without alignment we have teams building models for the sake of models, other teams investing different software packages, teams focused on bringing in 3D printers and others creating machine learning algorithms.

**Question 1:** Does your company have a single aligned strategy across the corporation to optimize delivery through their Digital Transformation and DevSecOps practices?

**Answer Options:**

- Yes
- No





# Restructure the System

By System we mean **people**, **process**, and **tools**.

Many businesses only purchase new tools and fail to restructure their organizations and their processes. If you don't address all facets of the system, your results will be minimal.

**Question 2:** Which of the following did your business restructure?

**Answer Options:**

- Organization
- Process
- Tools
- All
- None

# Predictive to Empirical Process

We have used the phase gate process for decades to build large cyber-physical systems. The issue has been the future us impossible to predict. Building in multiple horizons of planning, execution, and feedback loops allows us to adapt to changes. Digital tools will not provide a crystal ball, iterative and incremental implementation with empirical data will.

**Question 3:** Does your business follow a predictive traditional phase gate process such as Waterfall to build their systems?

**Answer Options:**

- Yes
- No





## **Reorganize and Reframe People**

**Reorganize** refers to the need for cross-functional value aligned teams as opposed to functional teams.

**Reframe** – refers to the need to move away from specialized individuals to generalizing specialists who can stretch beyond other functions. Often called T-shaped People

If your business did not reorganize and reframe it's the chances for success are low.

**Question 4: Does your organization have flat cross-functional teams or hierachal specialized teams?**

**Answer Options:**

- Hierarchical Specialized Teams
- Flat Cross-Functional

# Integrate the Technology

One of the biggest problems we have witnessed is that every functional specialty has their own tools and none of the tools talk to each other. Systems Engineers using Doors; Modelers in Cameo; Mission Engineers in Matlab/Simulink; Test Engineers in Test Architect; Software Engineers in GitLab; and Operations in Team Center. The data is all over the place!

The low integration leads to excessive waste and poor results.

**Question 5:** Does your business have integrated connected tool sets that talk to each other"

## Answer Options:

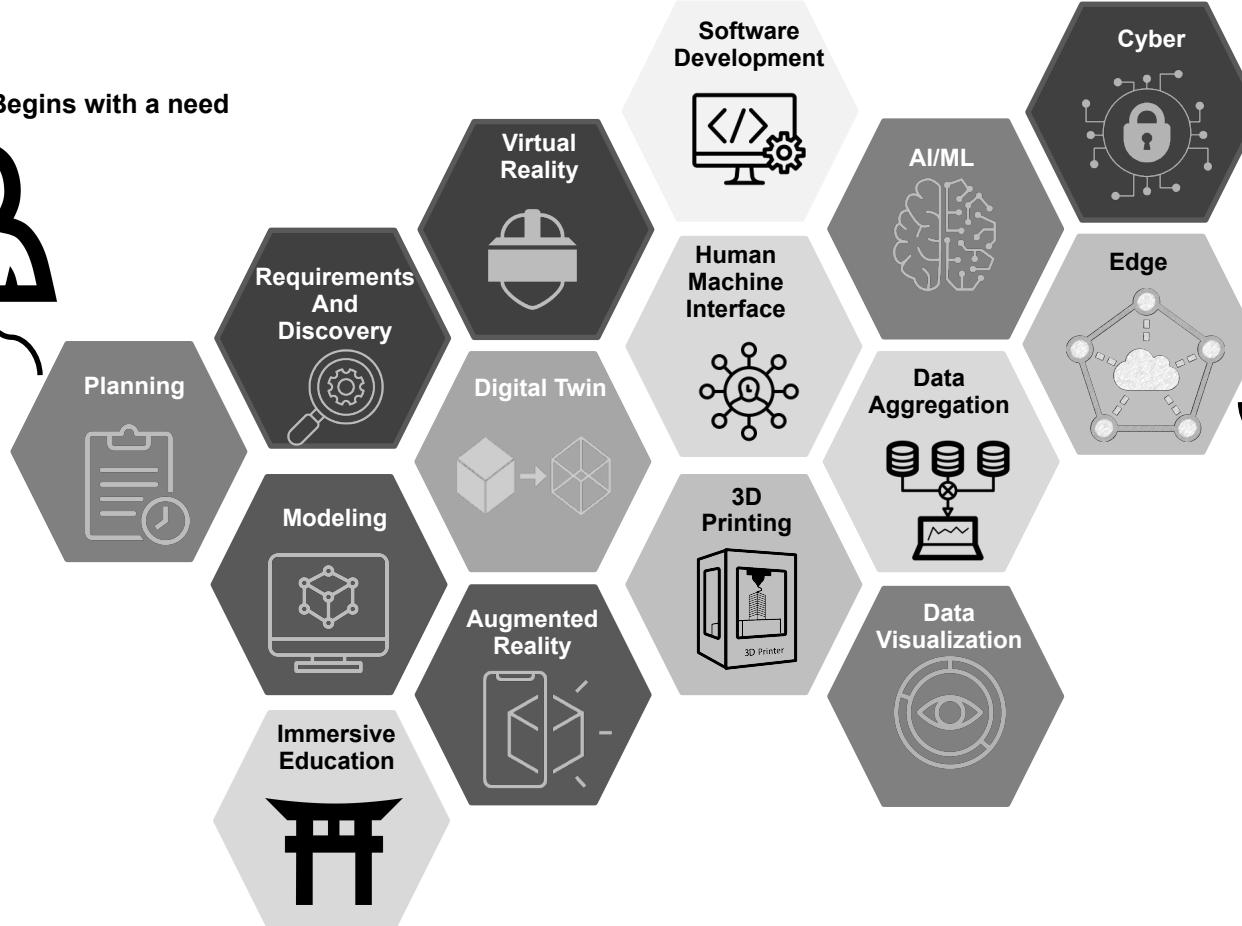
- Yes
- No



# Digital Engineering Value Stream



Begins with a need



To optimize value delivery its important to understand the Digital Engineering Value Stream



Ends with value delivered

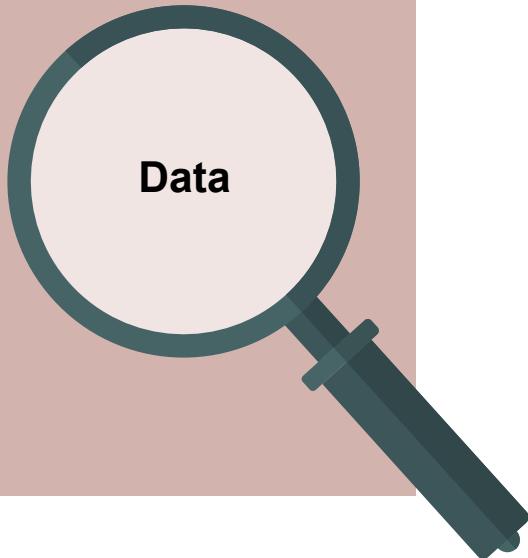
# Industrial DevOps Principles

1. Organize for the flow of value
2. Apply multiple horizons of planning
3. Implement data driven decisions
4. Architect for speed
5. Manage Queues / Reduce batch size / Limit WIP
6. Cadence and Synchronization
7. Right size integration
8. Begin with the end in mind
9. Apply a Growth Mindset

“DevOps is a mixture of people, process, and technologies that provides a delivery pipeline enabling organizations to move both responsively and efficiently from concept to business outcome.” - Robin Yeman

# The Help We Are Looking For

- Results
- Stories / Examples
- Lessons Learned
- Collaboration



Currently we are working on a book for what we refer to Industrial DevOps. We are focused on using DevOps to deliver Large Cyber-Physical Systems.

# Bring it all together together

