

# IT COMPASS



Platinum  
Business  
Partner





# From Edge of Chaos to Manageable Flow

PART 2

IT COMPASS



MAKING YOUR DAY

Platinum  
Business  
Partner





# Building the Factory

Establish an ongoing  
improvement process

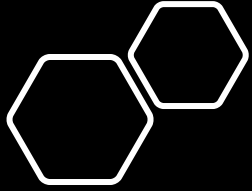


MAKING YOUR DAY

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# “Here”

Locating  
“Here”

Edge of Chaos

Hairball

WASTE

Unhappy customers

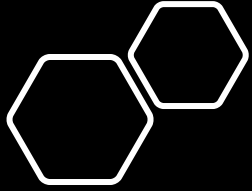
Overwhelmed teams



A photograph of a large industrial facility, likely a refinery or chemical plant, at night. The scene is dominated by several tall, cylindrical distillation columns and a complex network of pipes and structural steel. Numerous lights are illuminated throughout the facility, creating a warm glow against the dark blue twilight sky. In the foreground, there are large, white, cylindrical storage tanks. The overall atmosphere is industrial and active.

What is a Factory?





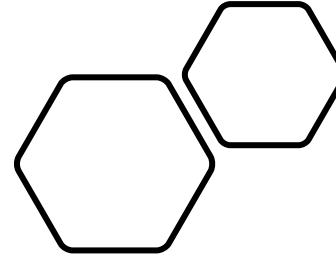
# The Definition

Navigating  
“the Path”

A factory is a **business domain**, often a complex consisting of several functions **filled with platforms & tools**, where **workers manufacture items** or operate platforms & tools which **process each item into another to build value** for the business and its customers



# Design, Construct & Operate the Factory



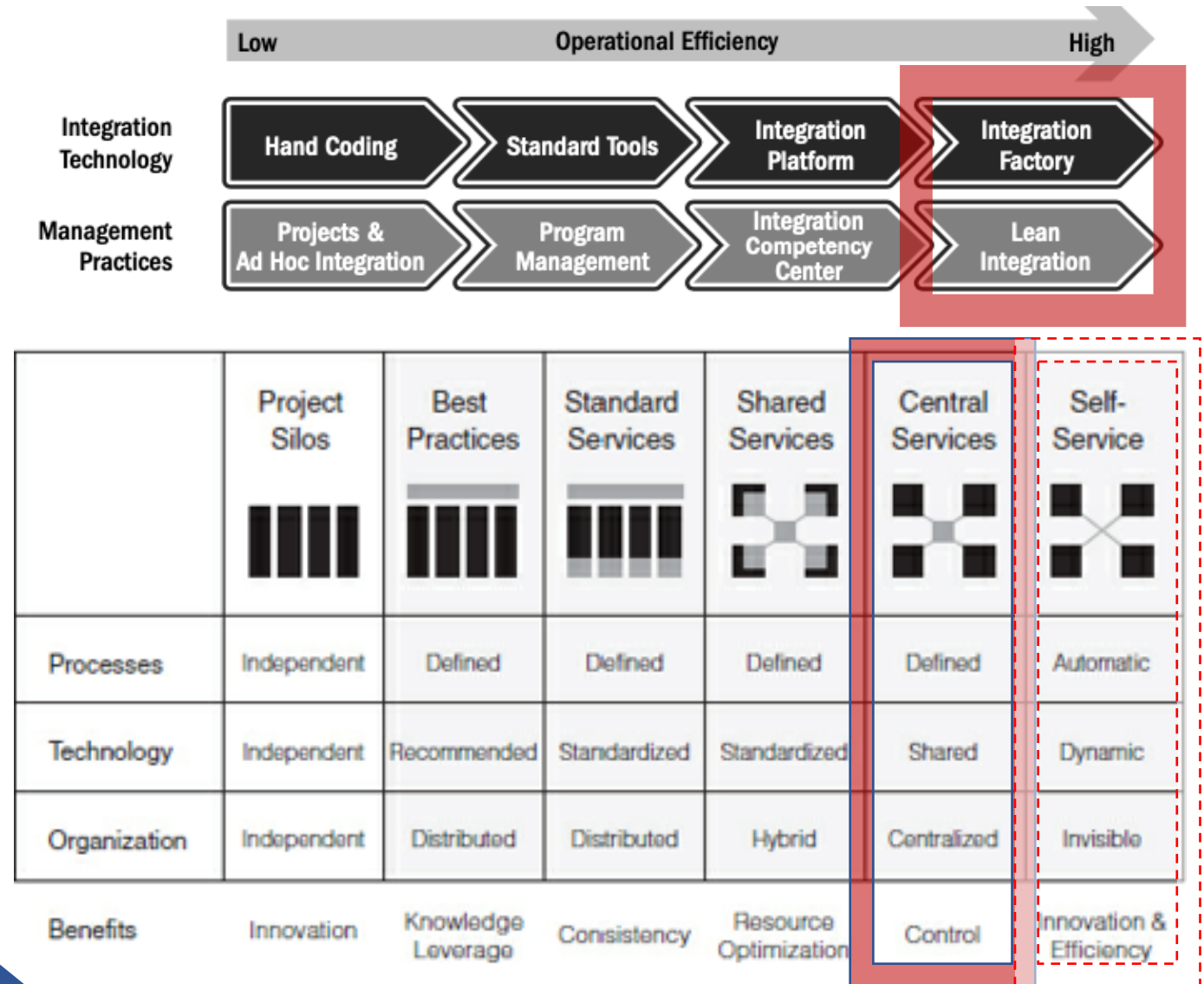
Walking  
“the Path”

... and make it work toward  
your Goal

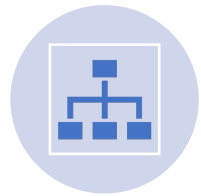


# Choose Maturity and Operation Model

Walking  
"the Path"



# Construction bill for the Factory



## Define processes

Get support from management (C - level), Enable teams, Definition of Done, Document and apply



## Define People

Get the right people for the right job/roles. Brake the silos!



## Create Architecture

Standardize tooling and platforms, Choose tooling for each role, establish common process and standards.



## Prepare Infrastructure

Define task, align environments, integrate tools, establish VCS for code and documents,



## Implement the pipeline

Establish the processes for analysis, development, code review, q/a, merge to production, Build to executable and deploy, enable monitoring and management reports

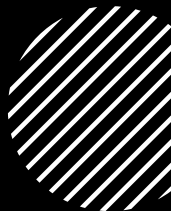


# Technology is just an enabler.

- **People are the ones who are getting things done.**



# Embed The 5 Ideals into your Factory floor



Walking  
“the Path”



The First Ideal: **Locality and Simplicity**



The Second Ideal: **Focus, Flow, and Joy**



The Third Ideal: **Improvement of Daily Work**



The Fourth Ideal: **Psychological Safety**



The Fifth Ideal: **Customer Focus**

*Kim, Gene. “The Unicorn Project”*



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# Goal #1

# Build the Pipeline

\*CI/CD process

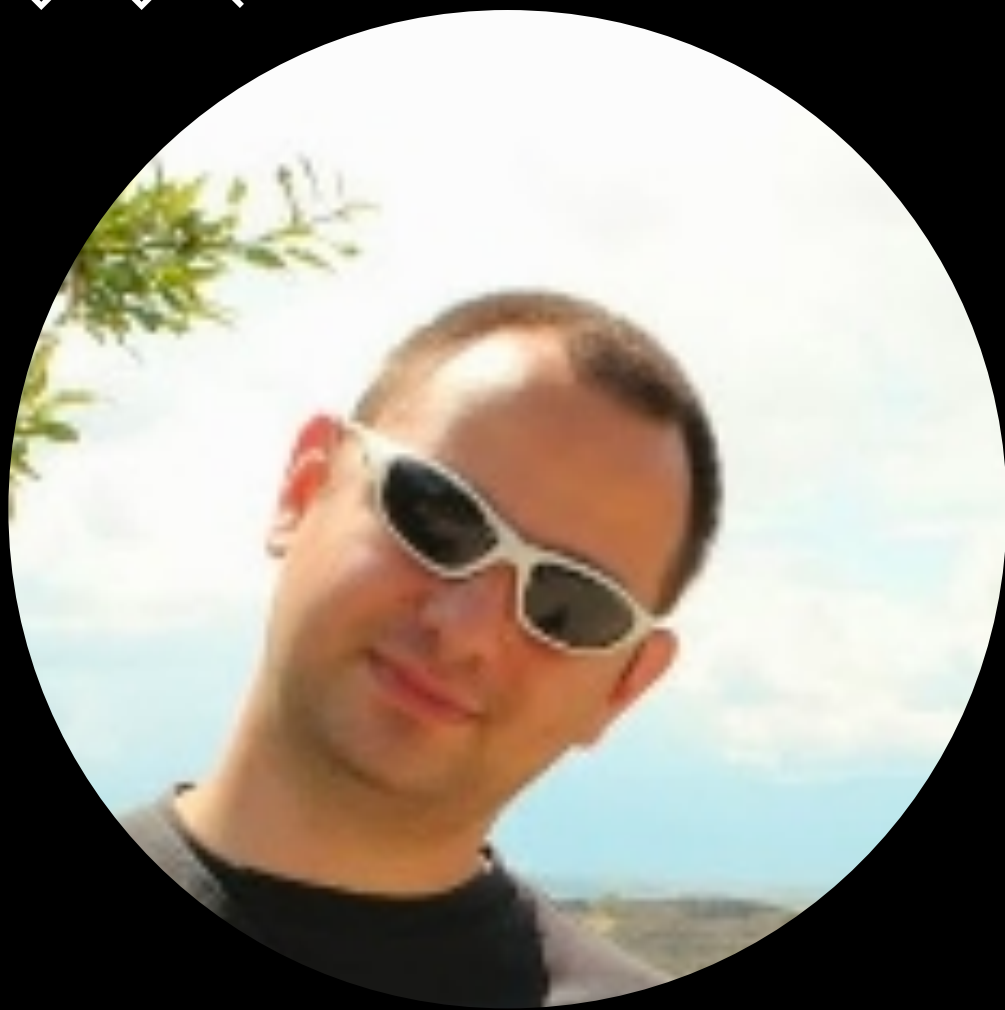
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# Software Development

Perspective



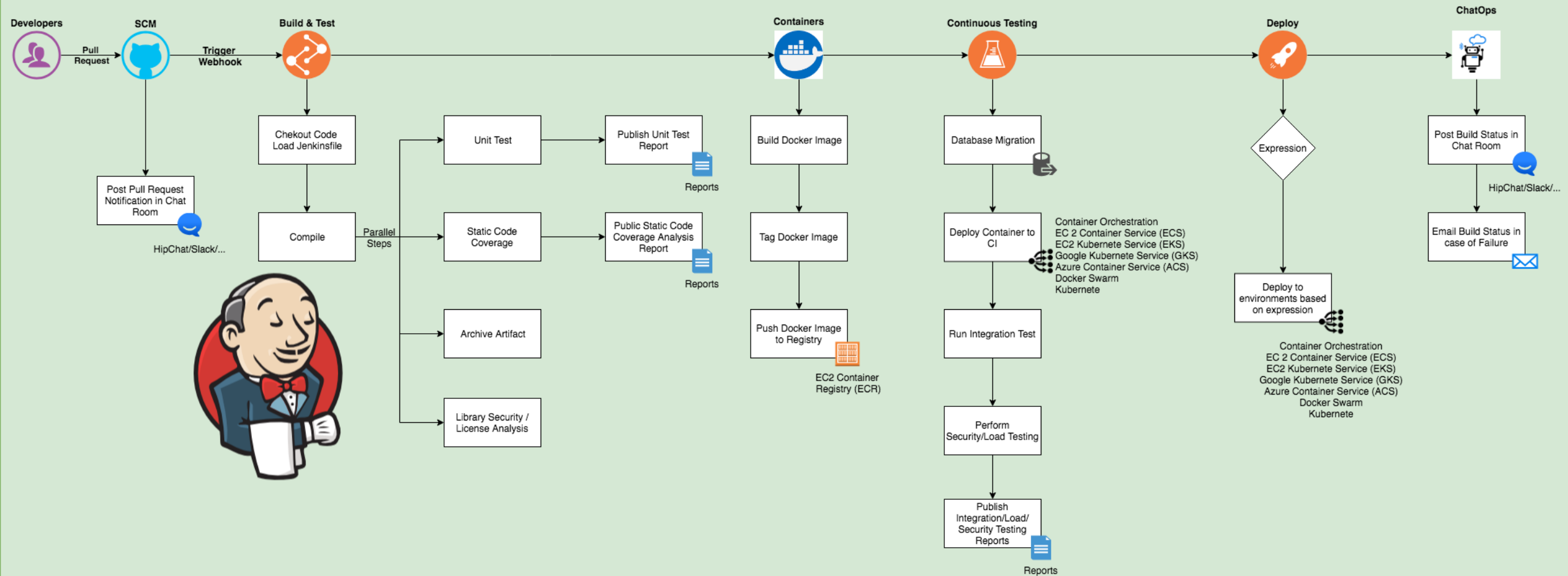


Деян Атанасов

Senior Solutions Architect

DevOps Lead







# Definition of Done

All Acceptance Criteria are met

Unit Tests were run and passed

US deployed on the test environment identical to production platform

Tests on devices/browsers listed in the project assumptions passed

US ok-ed by UX designer (when applicable)

QA performed

US tested against AC

US ok-ed by PO

Any configuration or build changes documented

Documentation updated

Peer Code Review performed

Conventions are kept

Artifacts from analysis and design are available in Jira

Automated tests for the User Story are created and pass (when and if applicable)

System-level Non-Functional requirements ( e.g. System-level performance) tested and passed

Static code analysis passed

Security checks passed

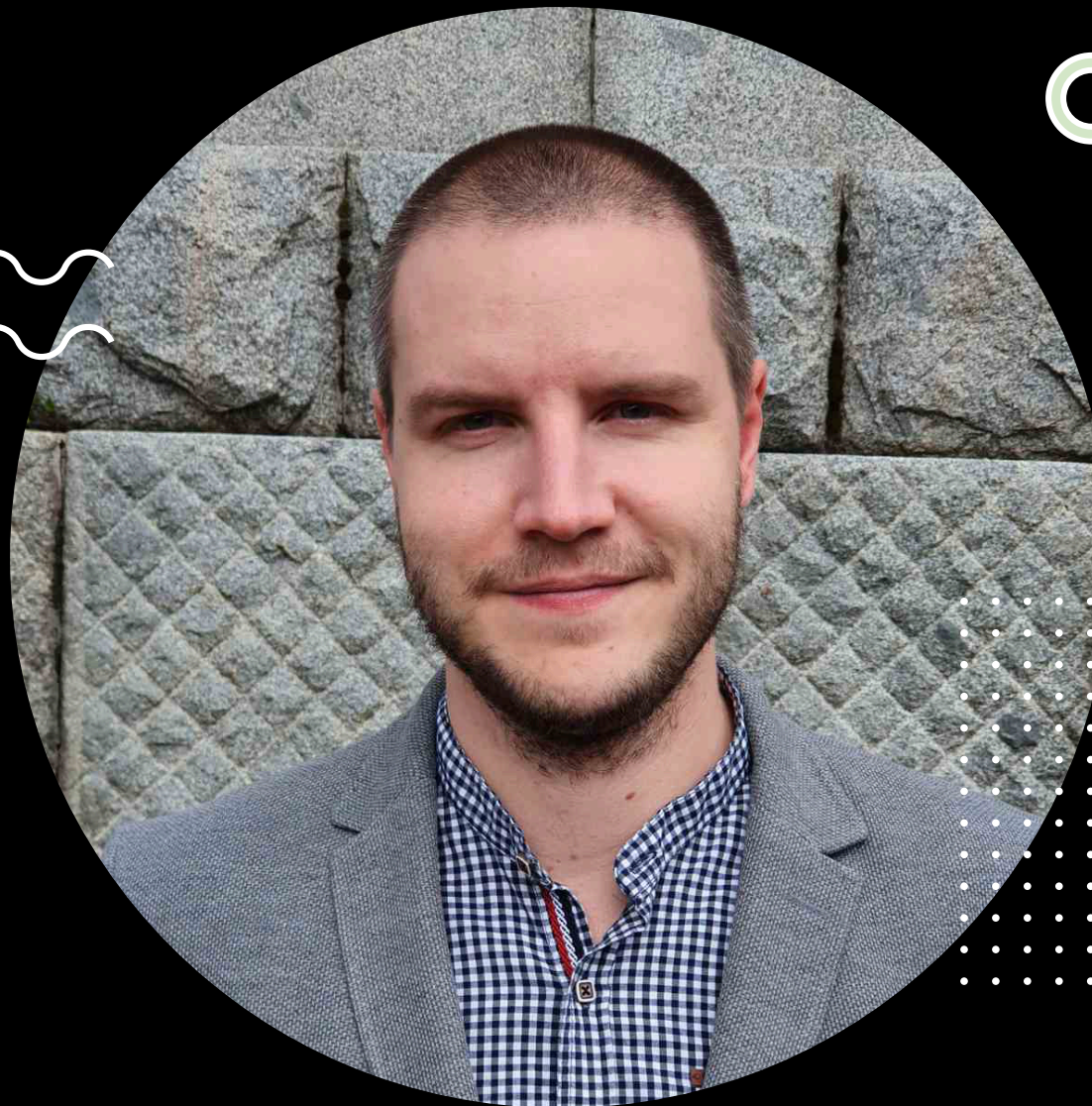


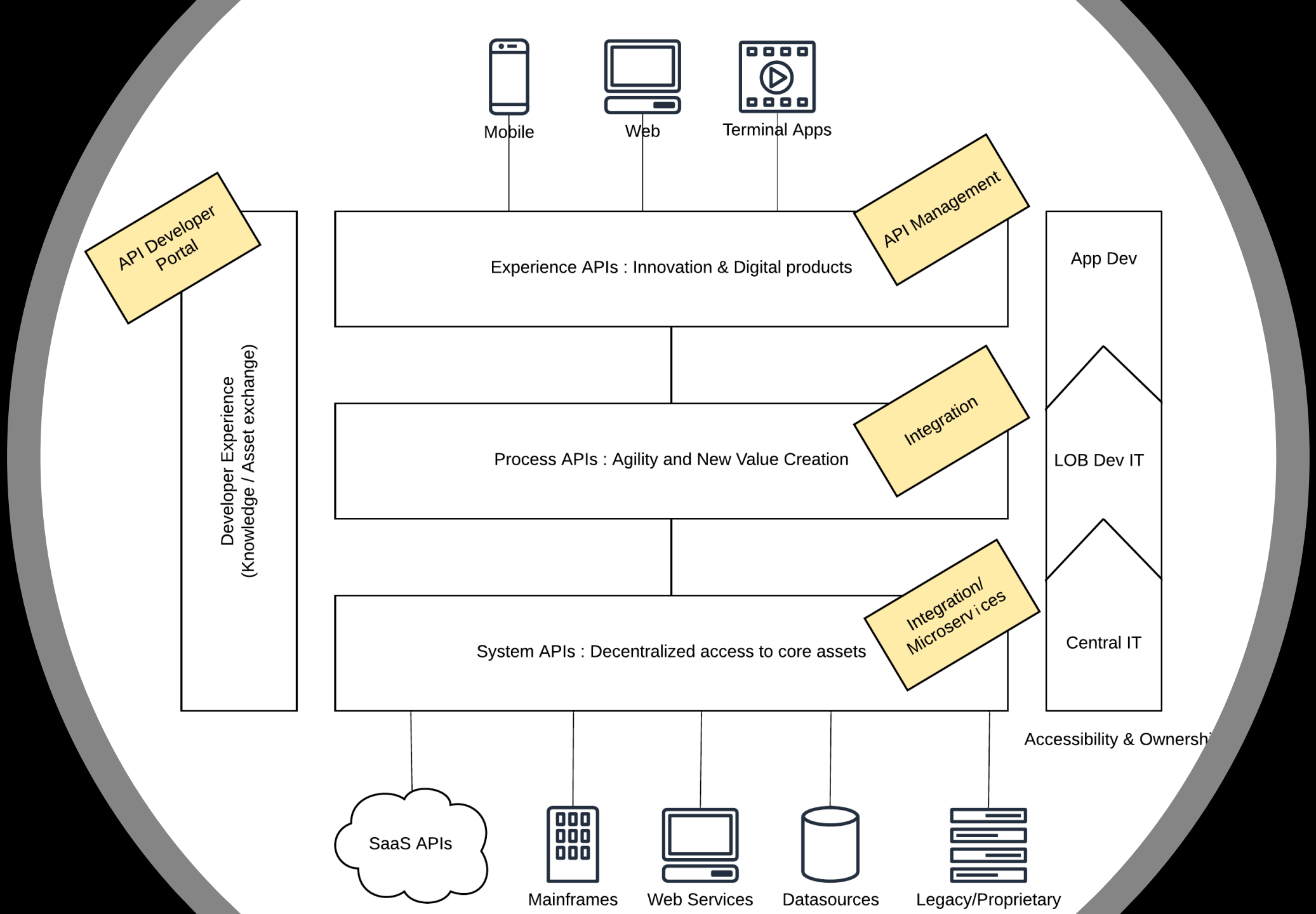
# Process Integration

Perspective

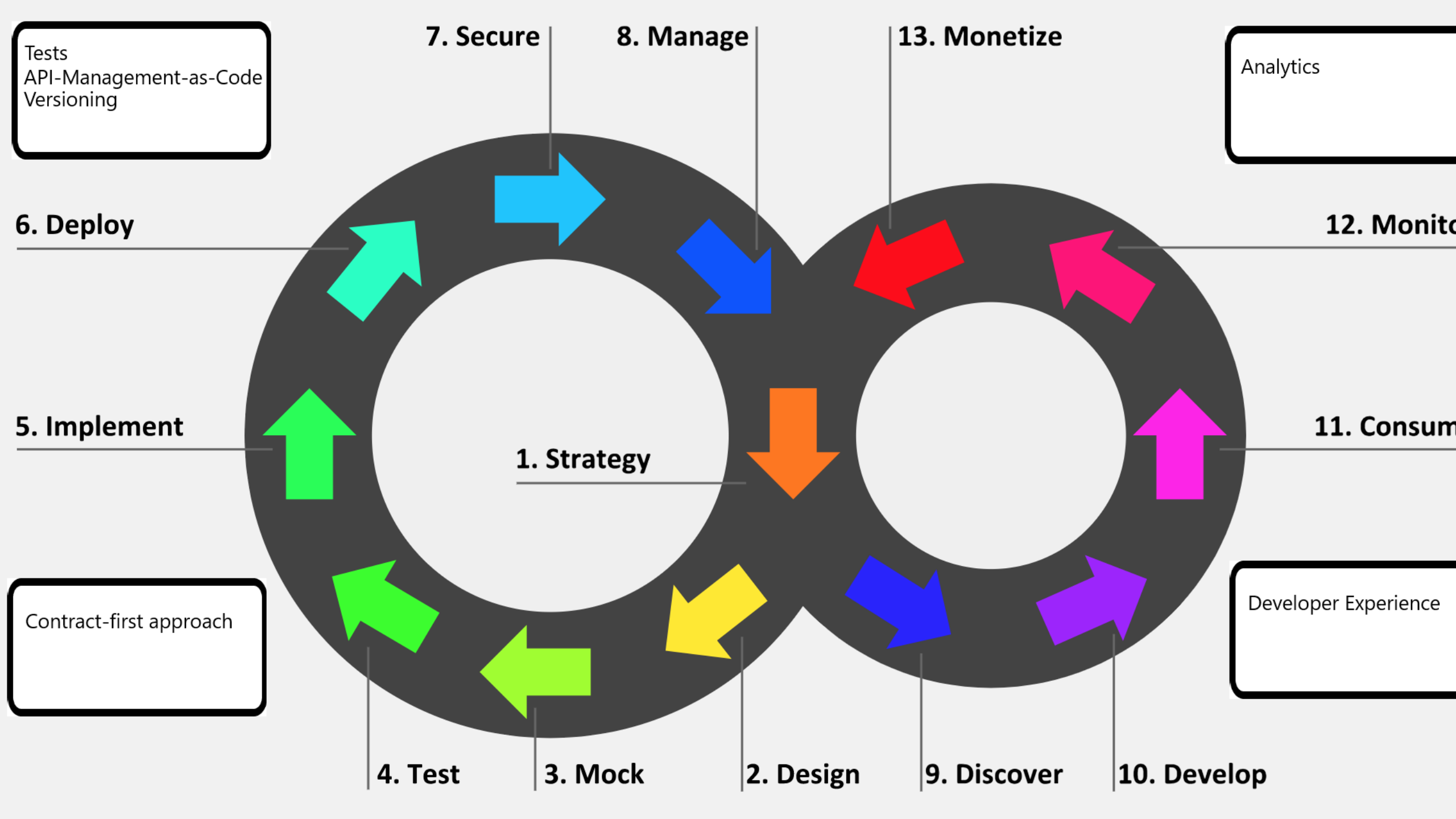
# Петър Петров

Senior Integration Architect











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# Data & AI

Perspective

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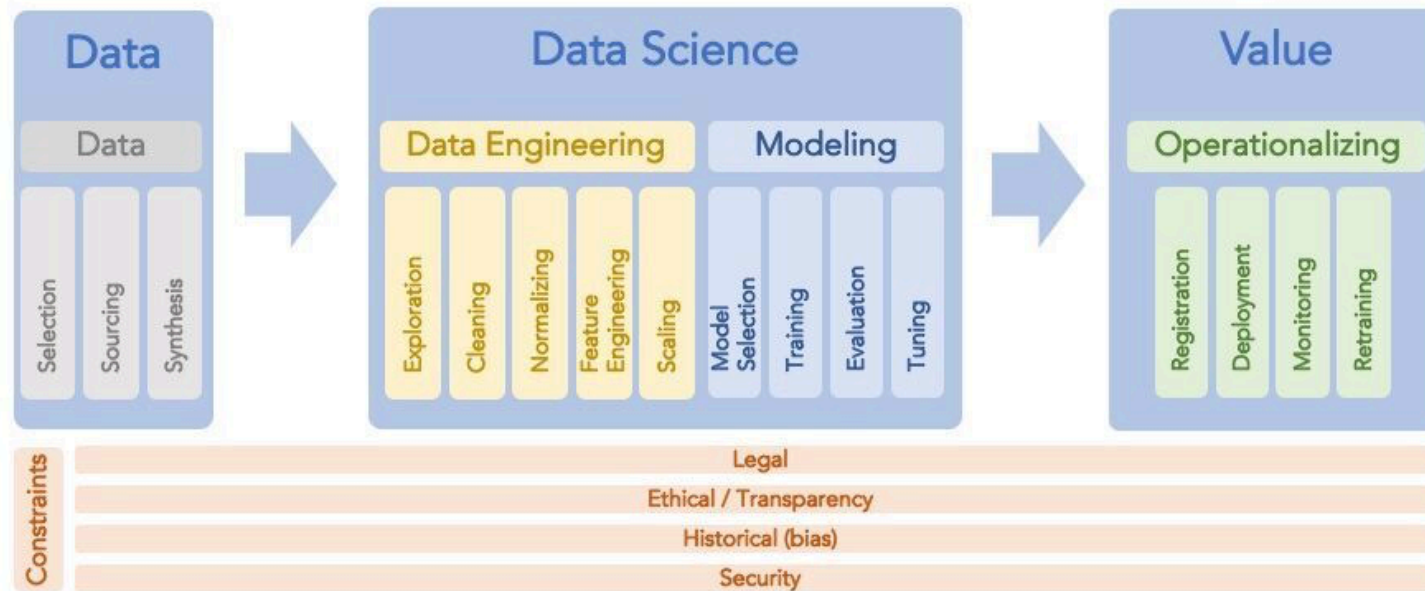
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## What companies think A.I. looks like





## What it actually is



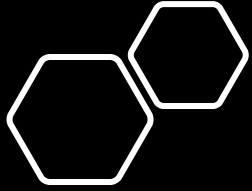


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Goal #2

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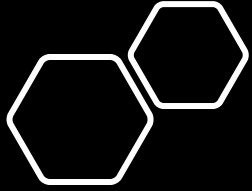
Optimize the  
Flow



# How do you operate a Factory?

**Walking  
“the Path”**

- **Identify The Goal.**  
Set the Direction. Before you can push towards success, you have to know what goal you're aiming for.
- **Focus on Inventory Management (i.e. Work-In-Progress).**  
Find New Ways to Streamline Processes, Save Time & Eliminate Waste.
- **Promote Productivity.**  
Provide Ongoing Training and Upskill Support
- **Invest in Automation & Quality.**  
Establish on-going improvement process.
- **Implement an internal Marketing Strategy.**  
Your customers and team members must understand why you are doing this!



# How to constantly streamline the process?

Walking  
“the Path”

Focus on throughput of the Factory, not on efficiency of the parts!

1. Identify the system's constraints (bottleneck).
2. Decide how to exploit the system's constraints.
3. Subordinate everything else to the above decision.
4. Elevate the system's constraints.
5. If in the previous steps a constraint has been broken, go back to step one, but do not allow inertia to cause a system constraint.

# Improving Flow?

1

## **Remove obstacles**

Reduce friction through the process.  
For example: waiting for missing elements, rework, batching.

2

## **Reduce WIP**

The major source of friction through the process fights over priorities and attention. Too much Work In Process increases the internal friction. Reducing WIP is an essential step toward improving the flow.

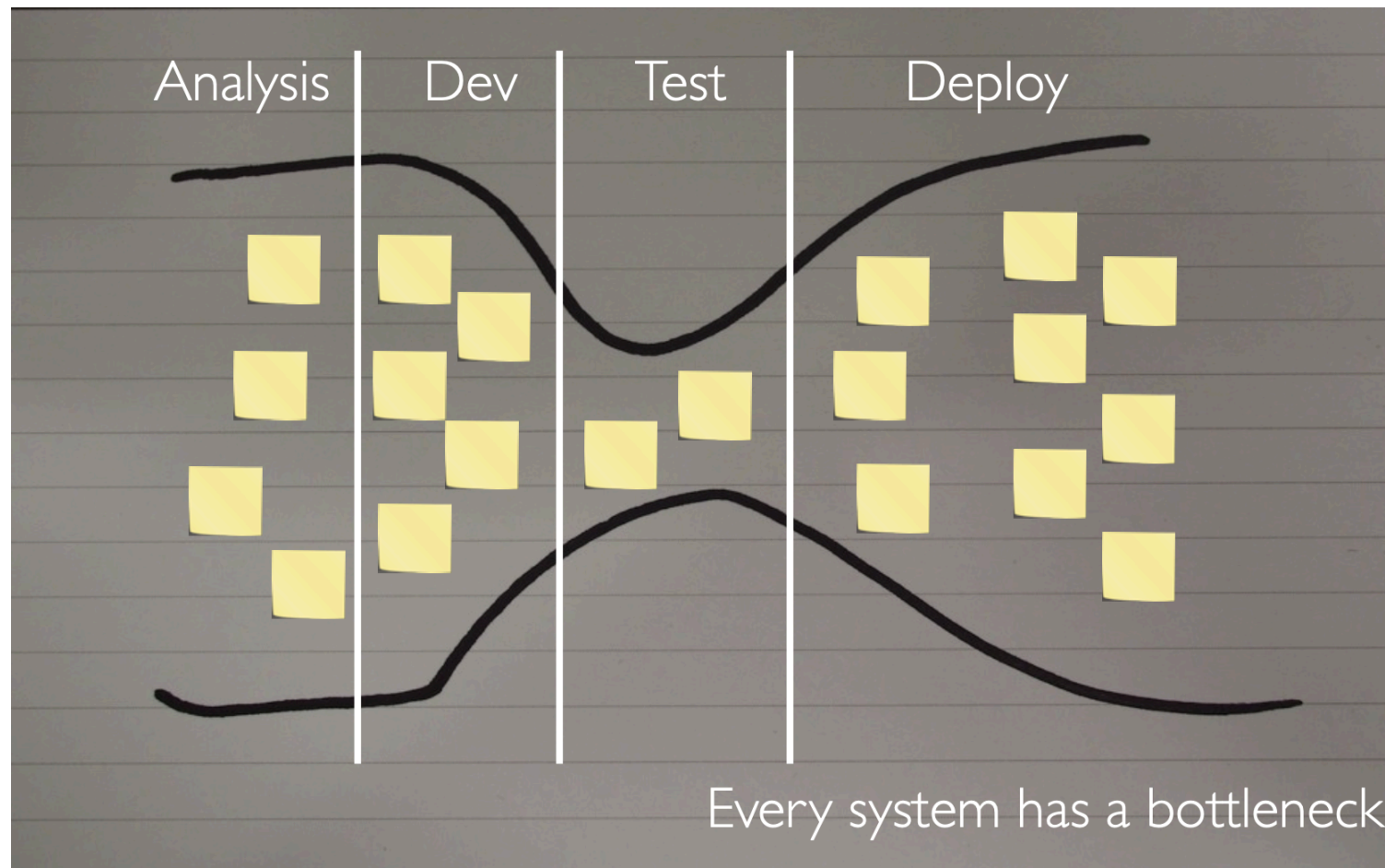
3

## **Set a drum**

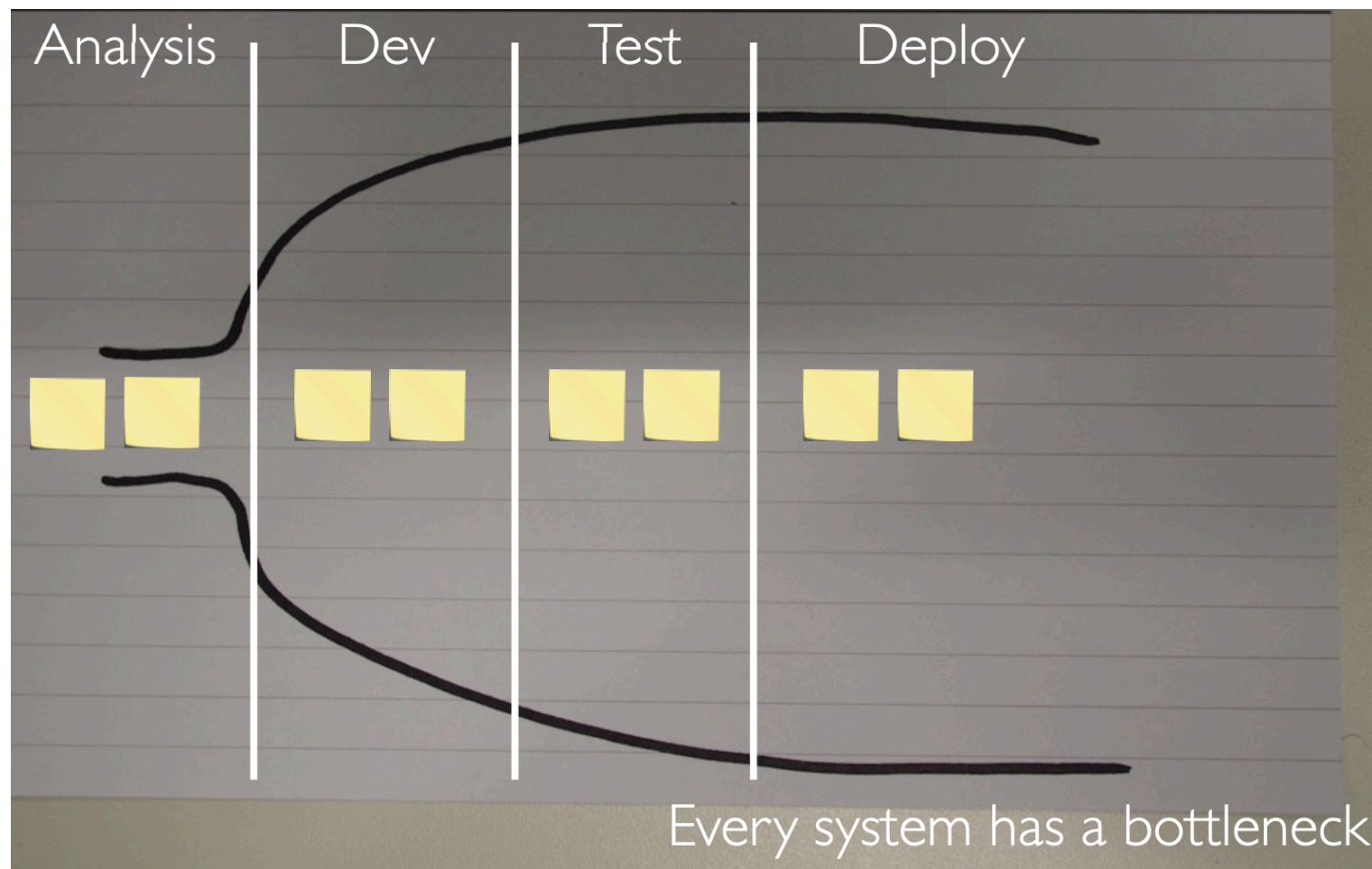
Smooth flow needs a pacemaker to set the pace for the system as a whole. The pacemaker can be the rate of consumption, the capacity of a resource, even a policy.



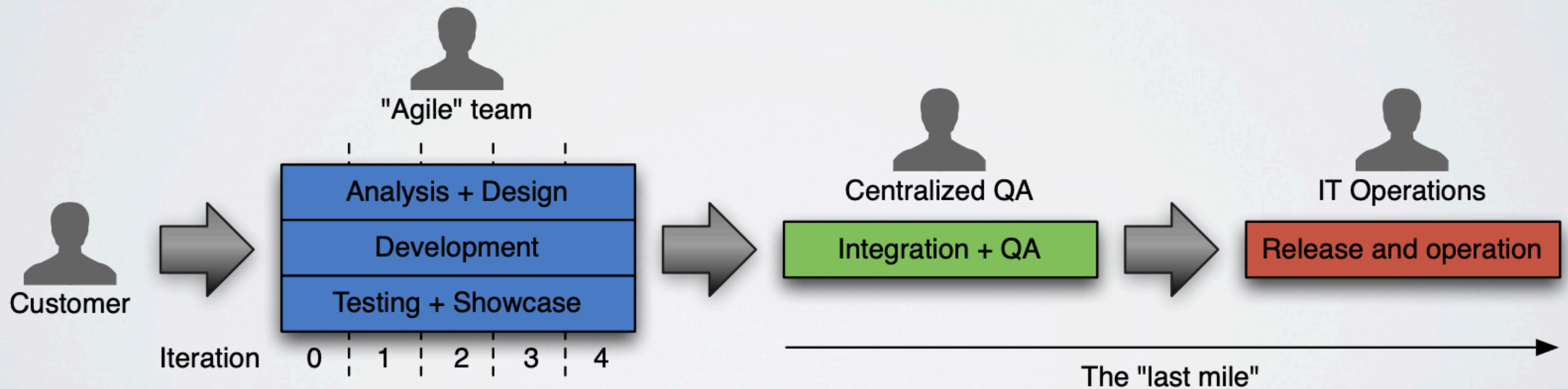
Walking  
"the Path"



**Walking  
"the Path"**



"An hour lost at a bottleneck is an hour lost for the total system. An hour saved at a non-bottleneck is just a mirage."





What to do with the free  
capacity?

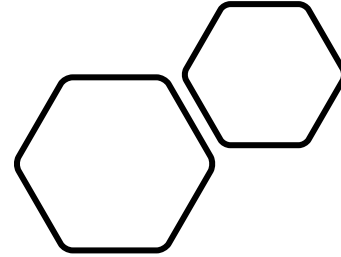





Pay your debts

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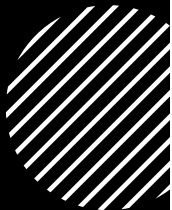

# How to manage a Factory?



Establish a process of  
ongoing improvement



# Monitor and Manage by KPI's and priority



**Walking  
"the Path"**

## Throughput

Average Lead Time, DONE per period

## Quality


%Rework

## Inventory

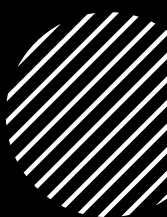

%dueDate, Total queue time, Work-In-Progress volume

## Operational Expenses

\$mandays invested per DONE



Build your  
own body of  
knowledge,  
practice and  
methodology



**Walking  
“the Path”**



### **Managing the Factory**

Theory of Constraints, Eliyahu M. Goldratt



### **Managing the Process & Quality**

LEAN



### **Managing the Projects**

Critical Chain, Eliyahu M. Goldratt & Agile



### **Managing Teams**

DEV/OPS

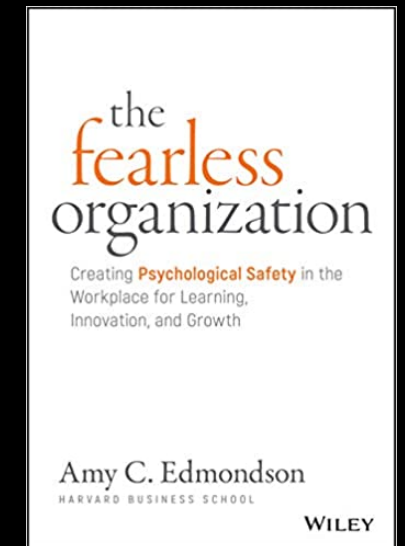
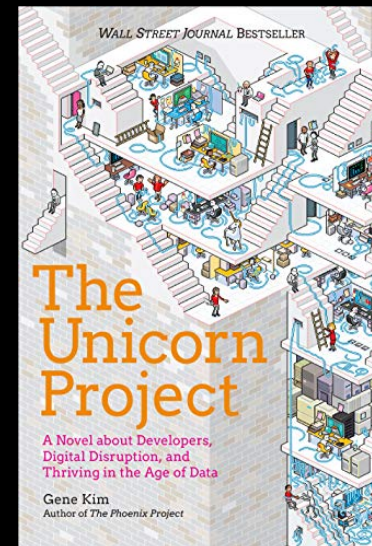
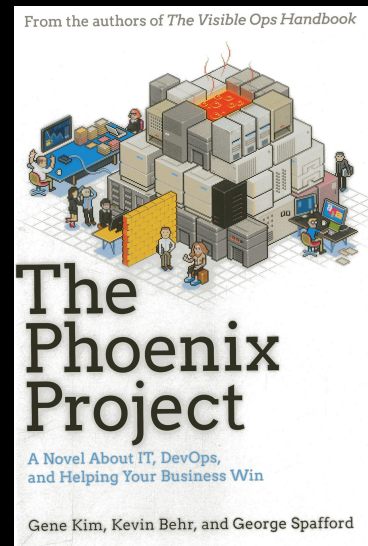
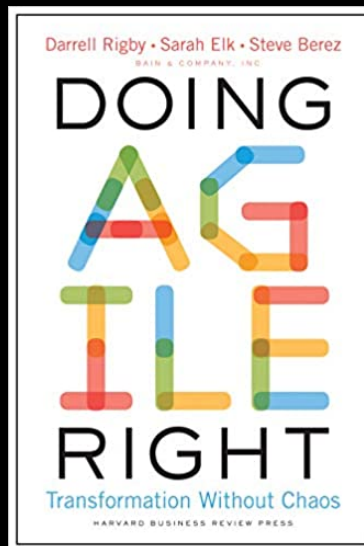
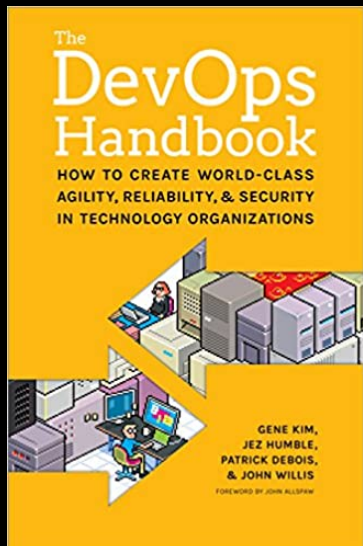
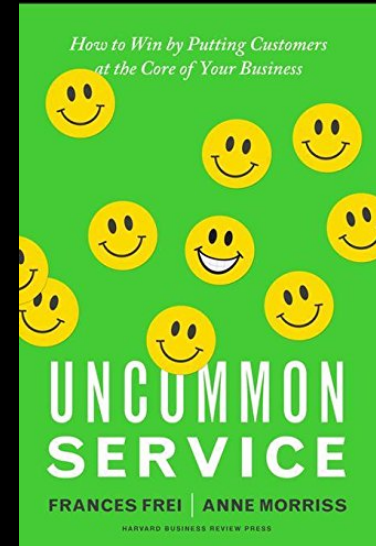
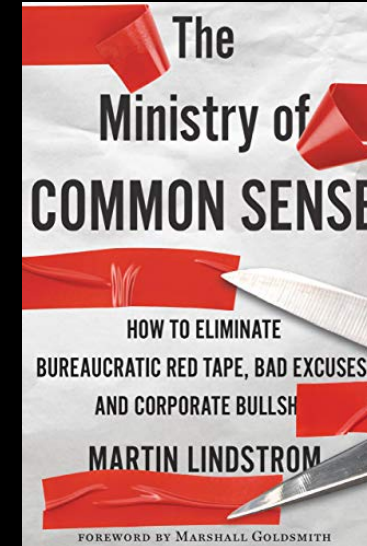
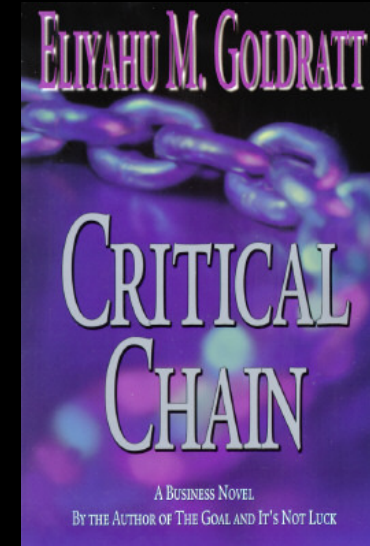
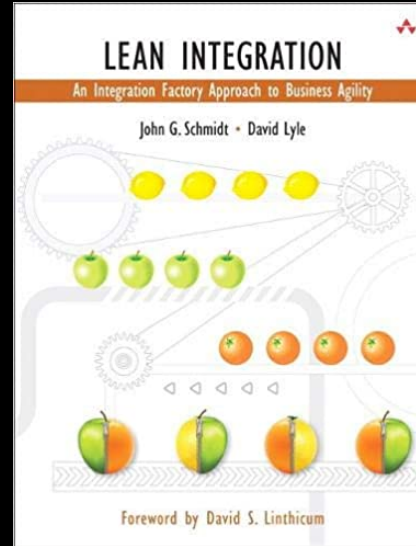
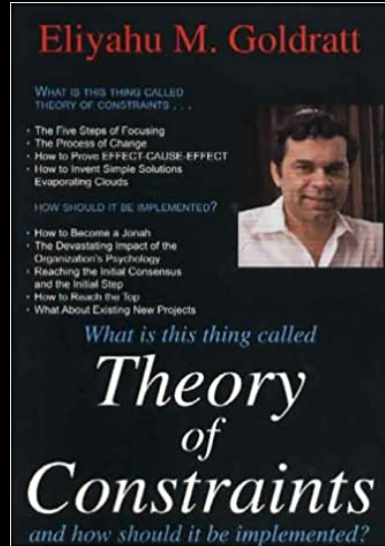
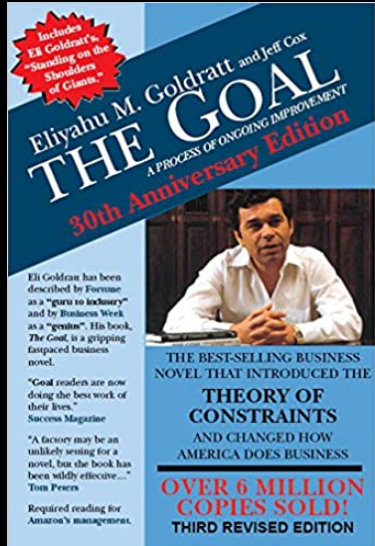


### **Managing People**

The 5 Ideals



# Refferenced books:





MAKING YOUR DAY

Build your Factory for Agility and Efficiency,  
with actionable patterns, repeatable processes and  
best practices frameworks.

[www.ibs.bg](http://www.ibs.bg)