

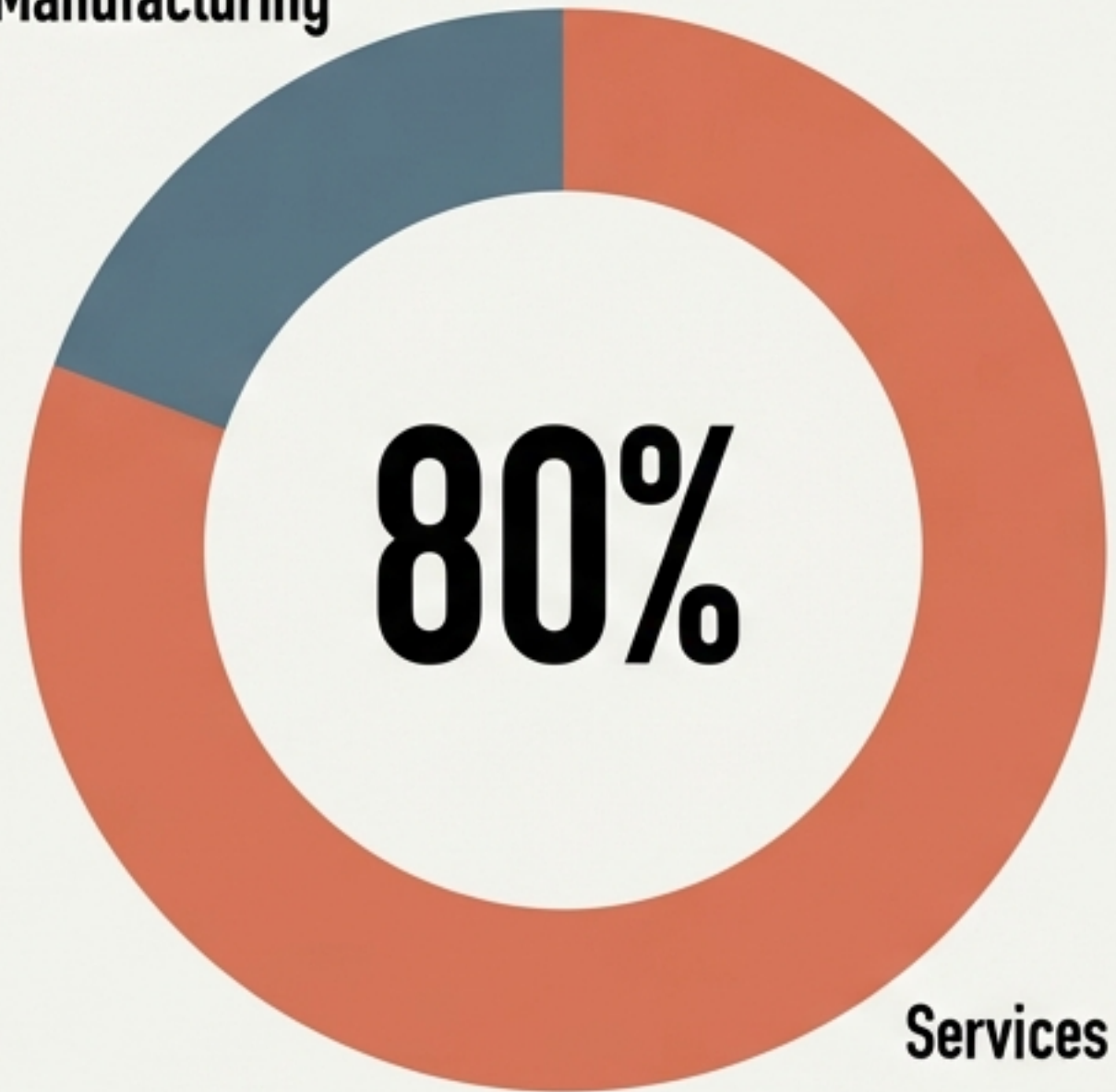


BCOR 440: Operations & Supply Chain Management | Chapters 7, 8, & 9

# Manufacturing vs. Service Processes

What's Really Different, What's Not, and Why It Matters.

Goods/Manufacturing



of the U.S. economy is services.

## The Big Picture: Why This Matters

**The Problem:** Most operations management concepts were originally written for factories.

**The Solution:** Future managers must understand both to know when to apply what.

### Manufacturing:

About making stuff  
(Chapters 7 & 8).

### Services:

About creating  
experiences  
(Chapter 9).

**Key Takeaway:** The 'twist' is that the management logic is actually more similar than you think.

# The 'Drop on Your Foot' Test

If you can drop it on your foot, it's a good. If not, it's a service.



Characteristic	Manufacturing (Ch. 7-8)	Services (Ch. 9)
Tangibility	Physical product you can touch, store, ship	Intangible process—can't hold a haircut
Inventory	Can store it (decoupling point strategy)	Perishable—empty airline seat is gone forever
Customer Contact	Usually low—customer buys finished product	Often high—customer is IN the process
Variability Source	Machines, materials, methods	THE CUSTOMER brings chaos!
Quality Check	Inspect before shipping	Production and consumption happen together

# The Game Changer: Customer Contact

In manufacturing, you isolate the customer from production. In services, the customer is part of the production.

## Manufacturing Isolation



**Keurig Case Study:** You buy a pod made months ago. It was quality-checked and shelved. Zero customer contact during production.

## Service Variability

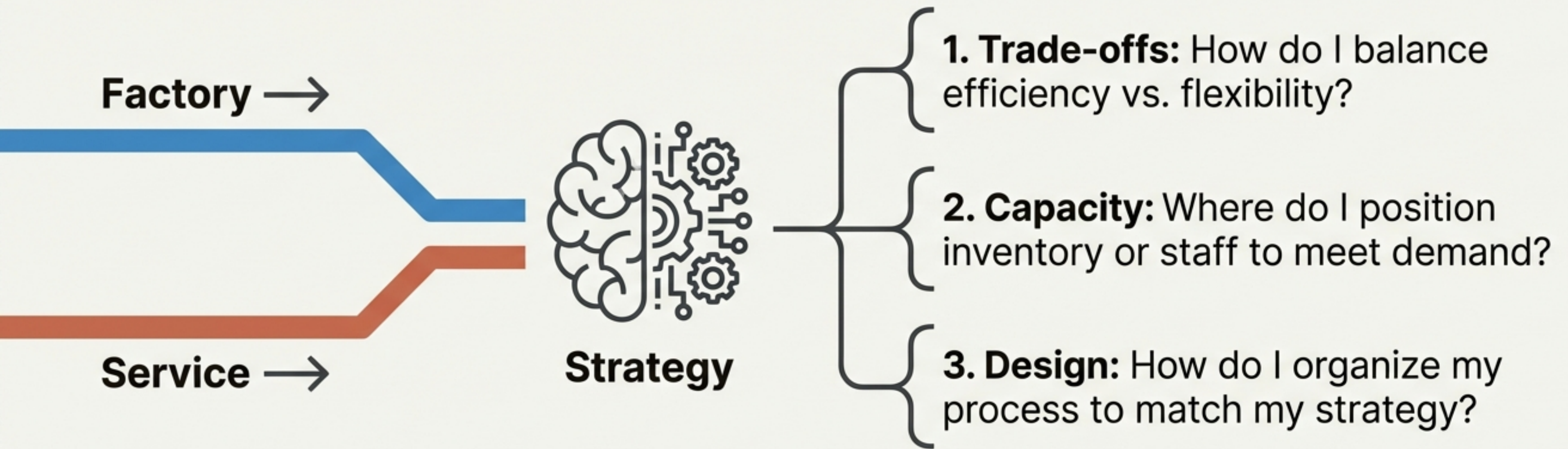


**Starbucks Case Study:** The barista makes the latte while you watch. You request extra foam. You are IN the system.

**Insight:** Your presence creates variability that the factory never has to deal with.

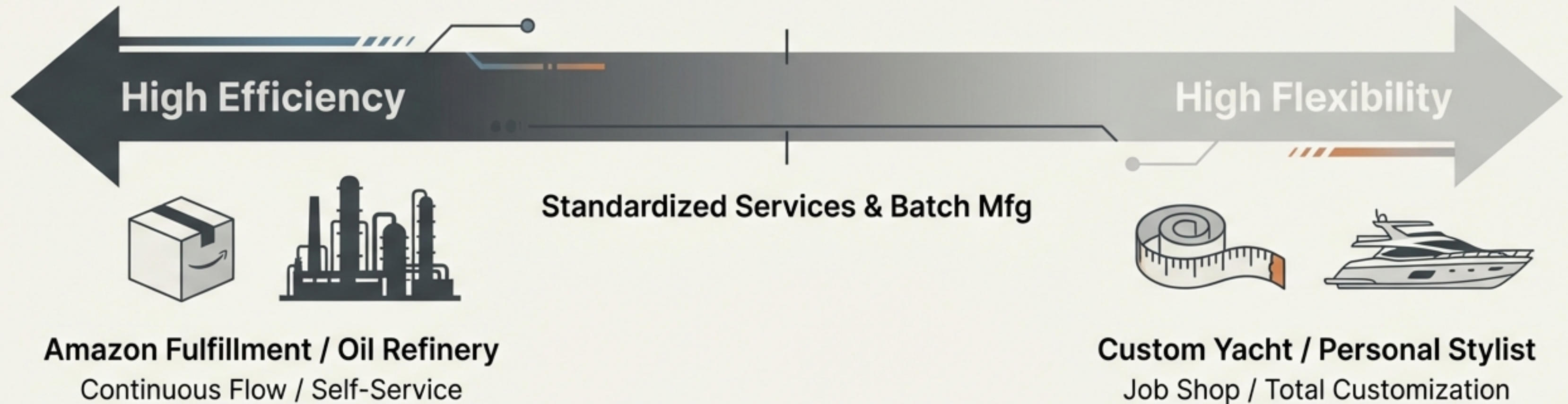
# The Common Logic (The "Twist")

Despite the differences, the underlying management math is the same. Whether running a factory or a hotel, you must answer these questions:



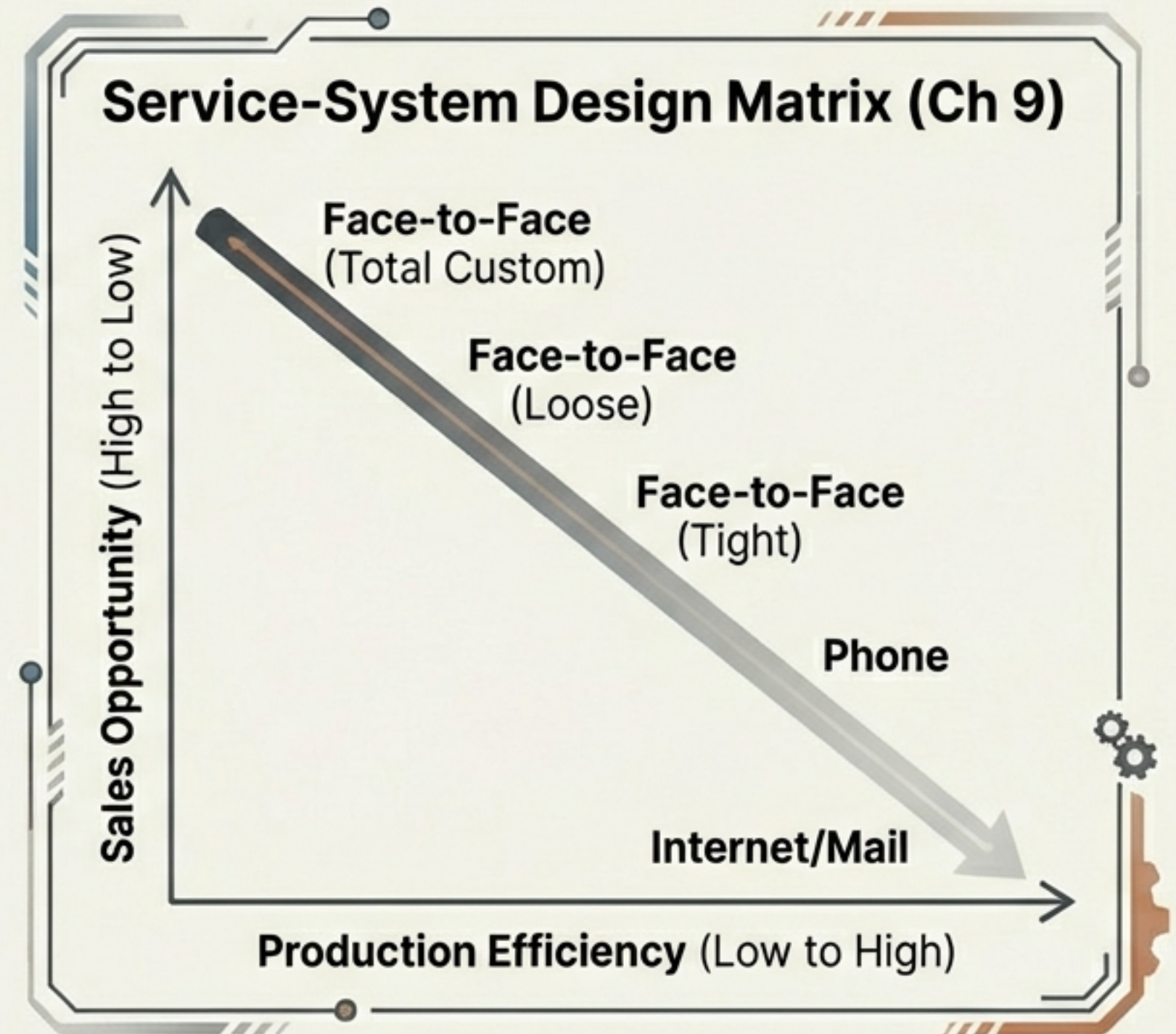
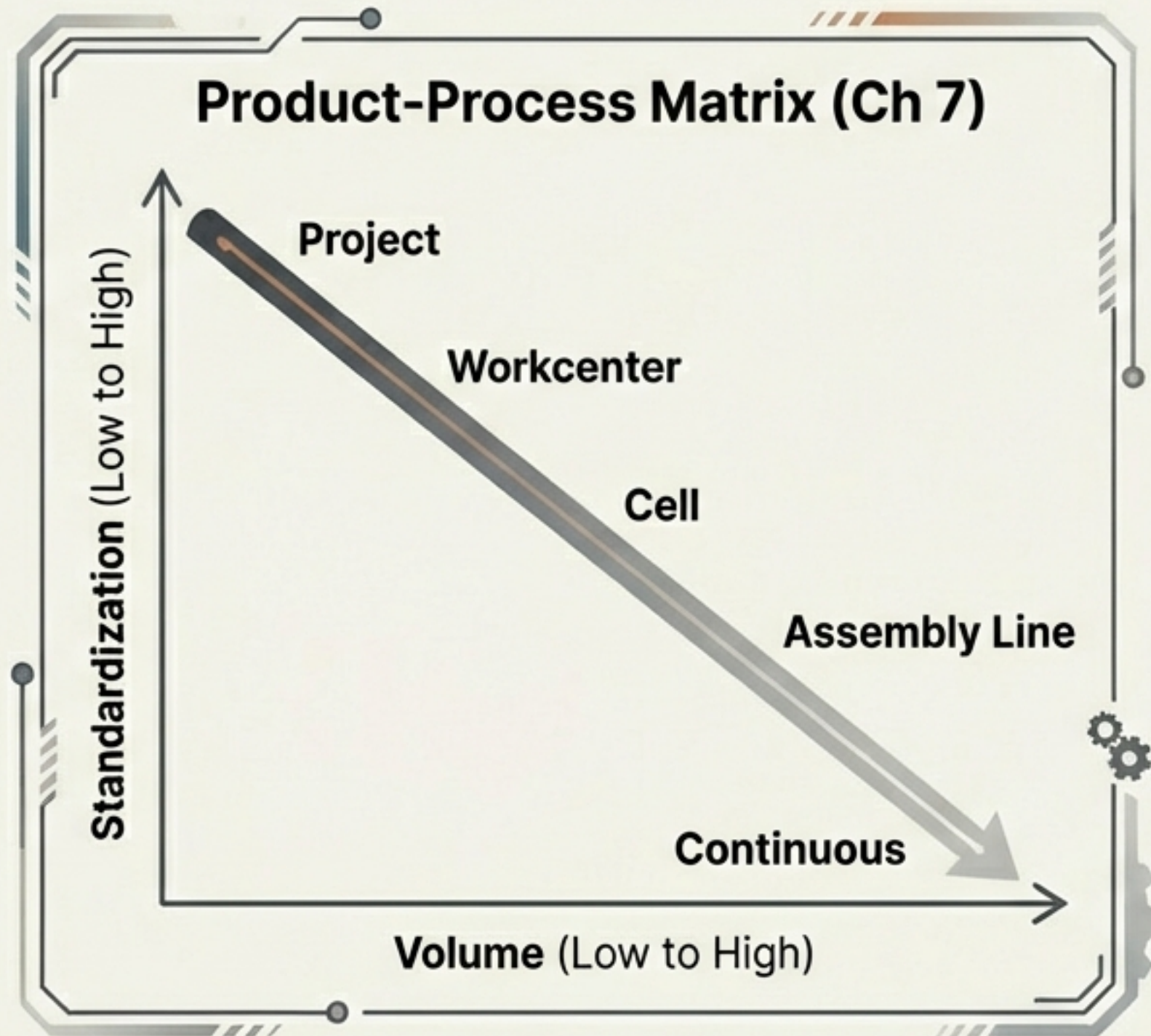
# The Fundamental Trade-off

As you move toward higher efficiency, you sacrifice flexibility and customization.



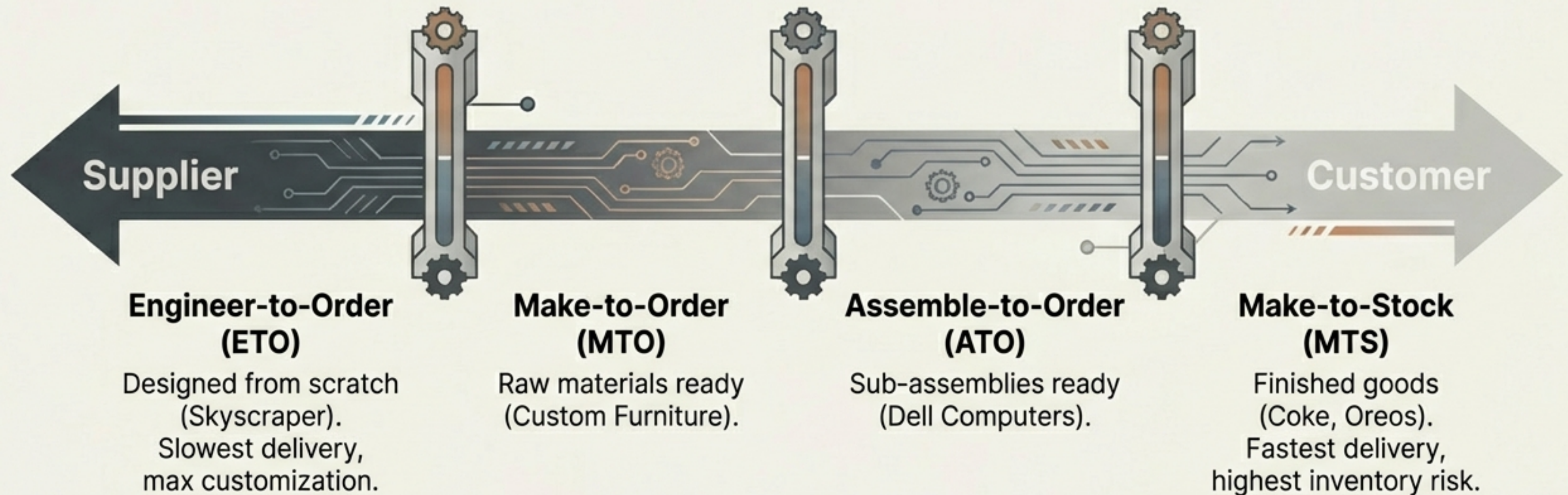
# A Tale of Two Matrices

Both matrices warn against being “off the diagonal” (mismatched strategy).



# The Customer Order Decoupling Point

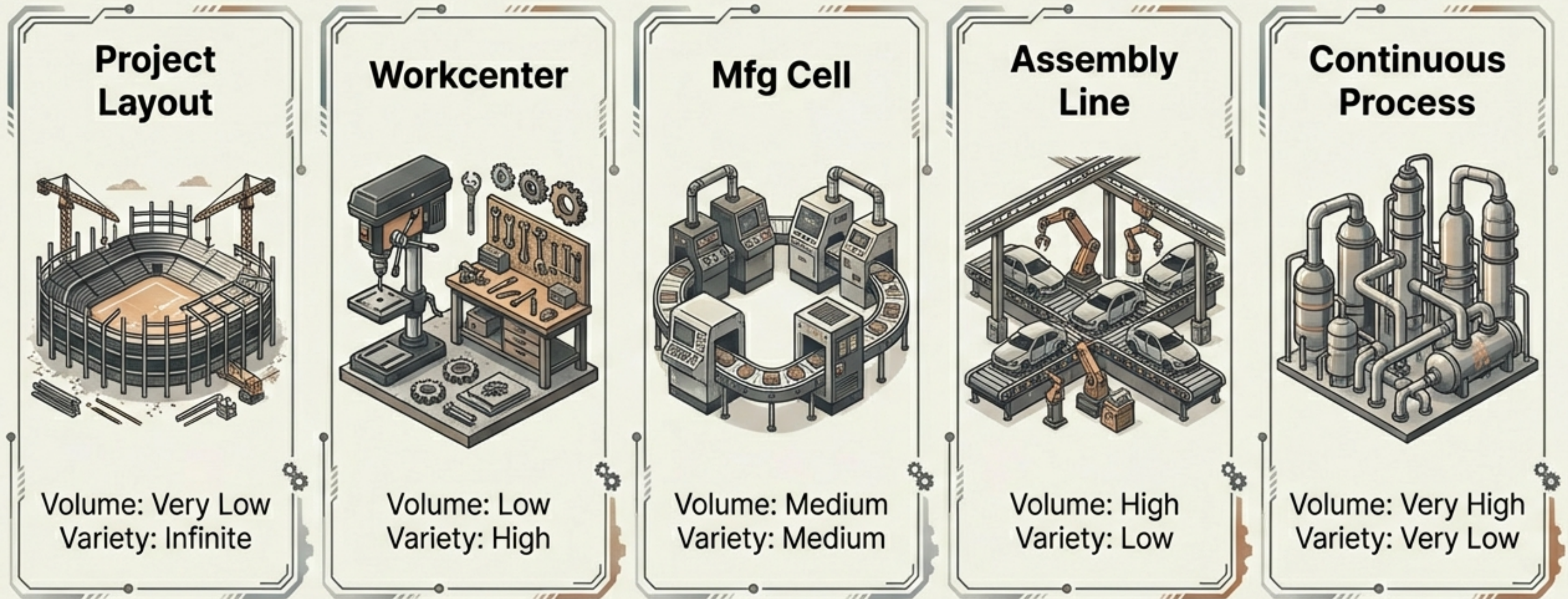
Where in the process do we hold inventory to stop the clock?



**Trade-off:** Closer to customer = faster but higher inventory costs.

# Layouts Match Volume & Variety

You don't build a Ferrari on a Ford assembly line.



# The Service Package

You aren't just selling a 'thing'; you are selling a bundle.

**Implicit Services**  
Psychological benefits  
(Safety, status).



**Supporting Facility**  
Physical location  
(Hotel).



**Explicit Services**  
Observable benefits  
(Room is clean).



**Facilitating Goods**  
Physical items consumed  
(Food, bed).



**THE SERVICE**

**Information**  
Data needed to serve  
(Records).



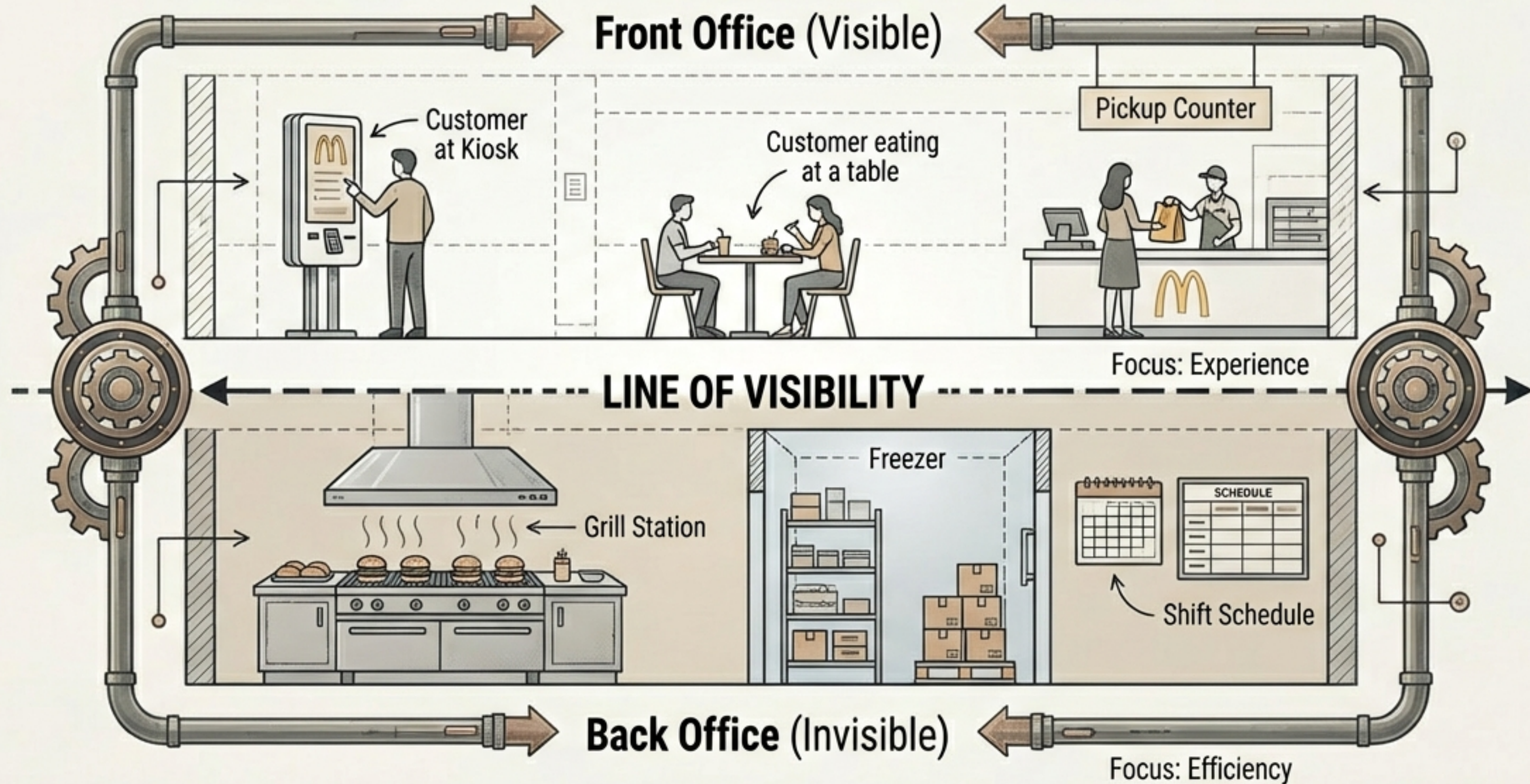
# Managing 'Chaos': 5 Types of Variability

Customers bring variability into the system. Here is how to label it.



# Service Blueprinting & The Line of Visibility

Visualizing the process requires separating the stage from the backstage.



# Myth Busting



**Myth:** High contact is always better.



**Reality:** High contact reduces efficiency. Match contact to needs (e.g., ATMs vs. Tellers).



**Myth:** Services can't use manufacturing techniques.



**Reality:** McDonald's is an assembly line. Use mfg logic for the "back office".



**Myth:** Services are either efficient OR personal.

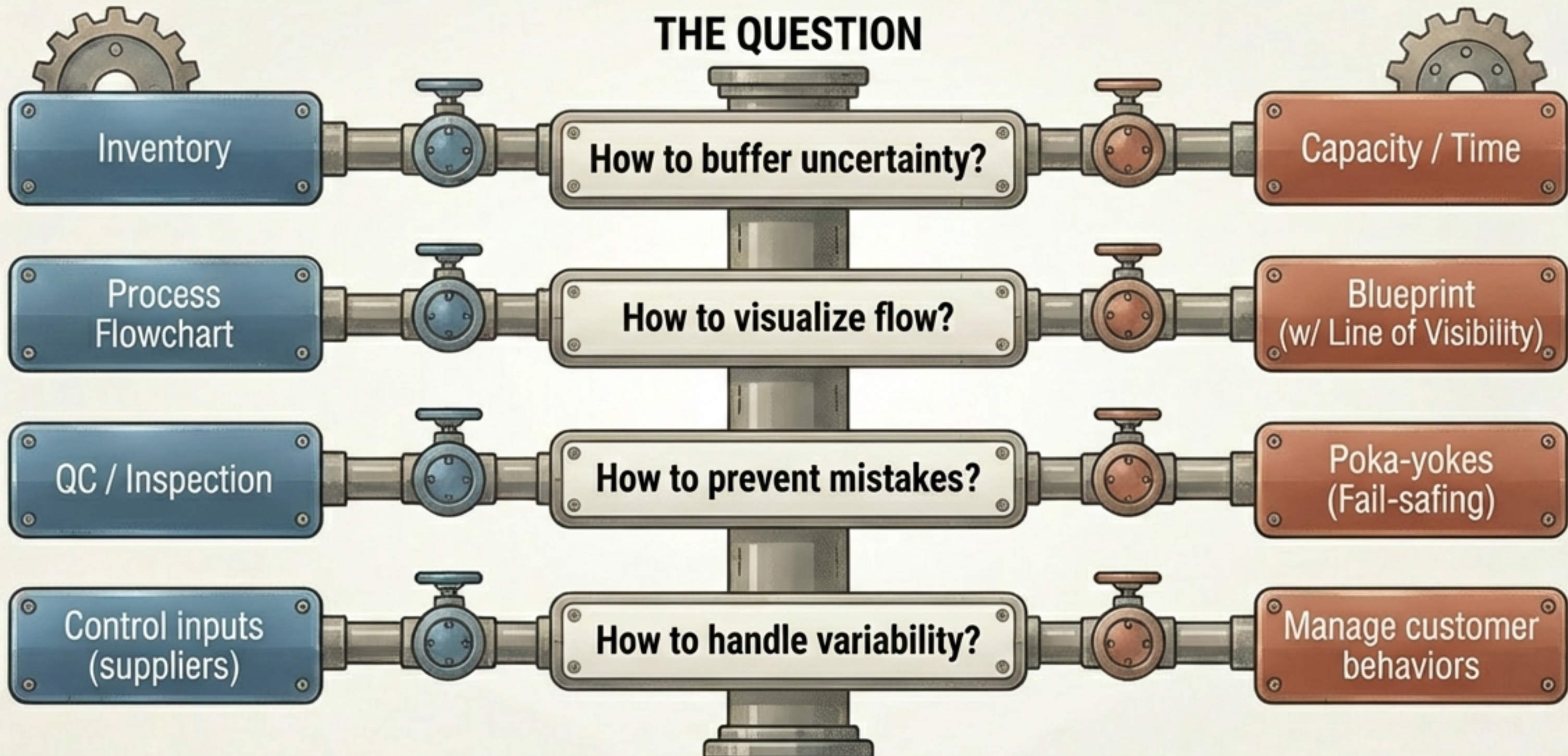


**Reality:** Smart design automates the routine (kiosks) so humans can handle the exceptions.

# Strategic Synthesis

The questions remain the same regardless of industry.

## THE QUESTION



# The 'Cheat Sheet'

Terms you need to know cold for the exam.

## Manufacturing (Ch 7-8)

- Customer order decoupling point
- MTS, ATO, MTO, ETO
- Product-process matrix
- Project, Workcenter, Cell, Assembly Line, Continuous
- Break-even analysis

## Services (Ch 9)

- Service package (5 elements)
- Service-system design matrix
- 5 types of customer variability
- Line of visibility
- Poka-yokes (fail-safing)