

# Driving Step-Changes in Performance & Culture for Established Sites

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Associate Partner,  
Chartwell

# Why Don't Most Production Lines Improve?

1. They don't believe they *can* improve

2. They're not *asking the right questions*

3. They're not *set up* to improve



# World Map #1, c. 1540:

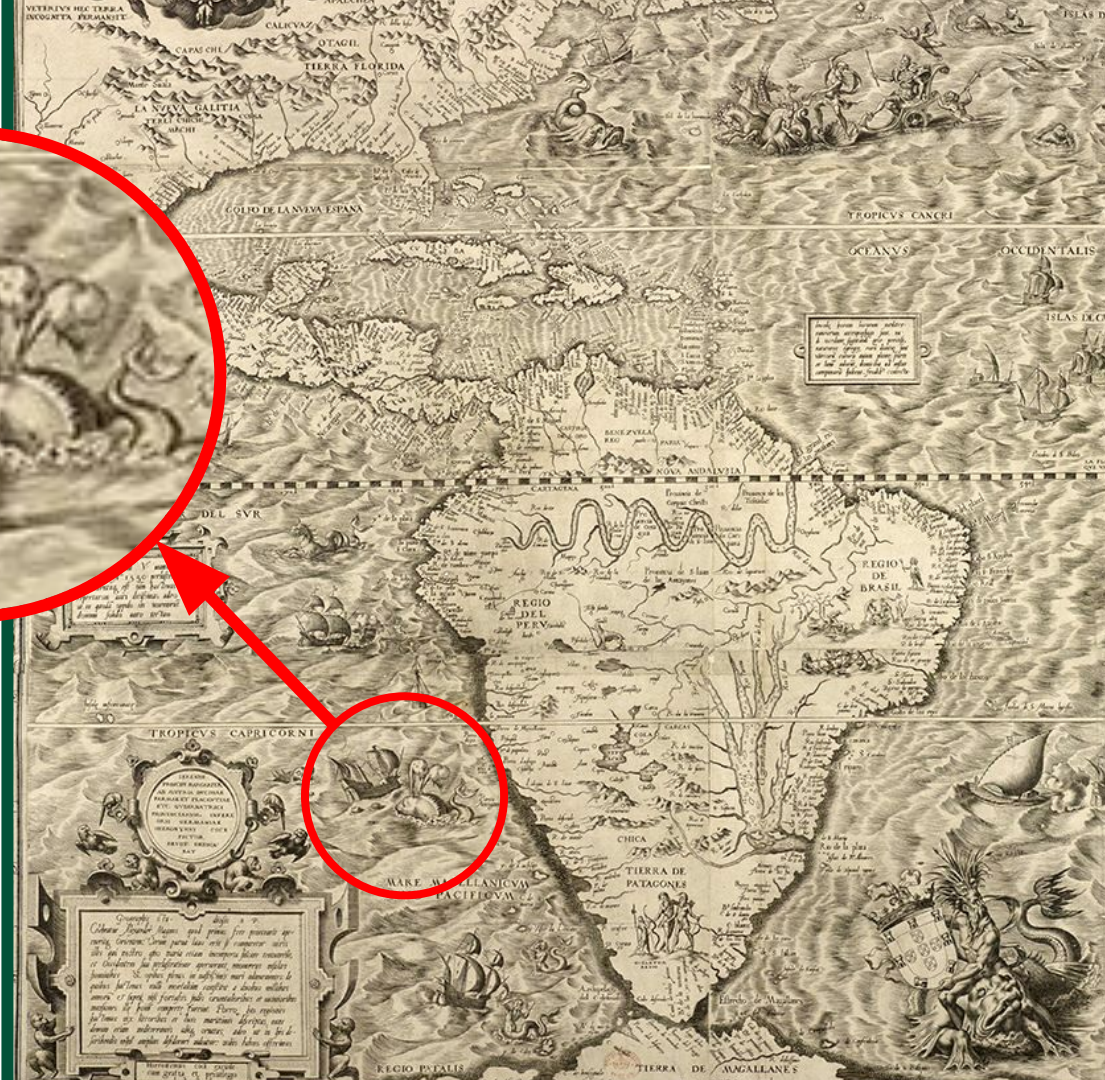
- Simple
- Incomplete
- *Honest*





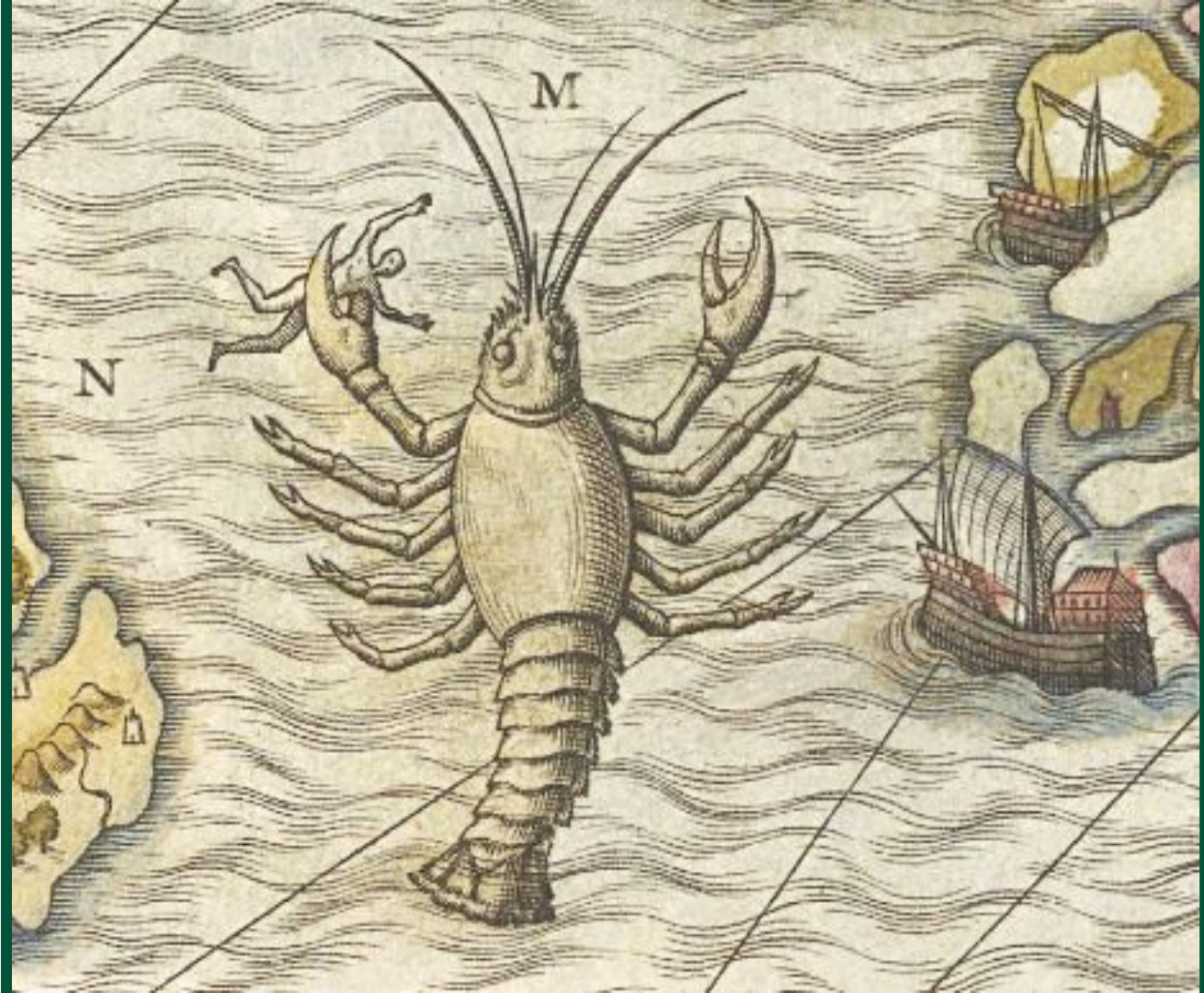
# World Map #2, c. 1560:

- Detailed
- Inaccurate
- Full of sea-monsters





**“Running  
faster will just  
increase  
downtime”**



**“We’ll need a  
lot of capital  
to go any  
further”**





K



**"The plant is already fully optimized"**

# How to get to the truth?

## Use a *Zero-Loss* Approach

A Zero-Loss Approach compares current performance to a

**Perfect World**

In Zero-Loss world:

- No downtime (planned or unplanned)
- Plant always runs at maximum rate
- No quality issues





# A Story: Intro to Site X

- **Highly profitable company**, producing high-margin batch chemicals for pharmaceutical industry at their flagship site – **Site X**
- **Sudden, huge spike in demand for Product A**, driven by pandemic
- Sales commitments greatly **outstripped current manufacturing capacity**
- **Urgent need to ramp capacity** in 12 weeks to avoid shorting customers (and, ultimately, patients)

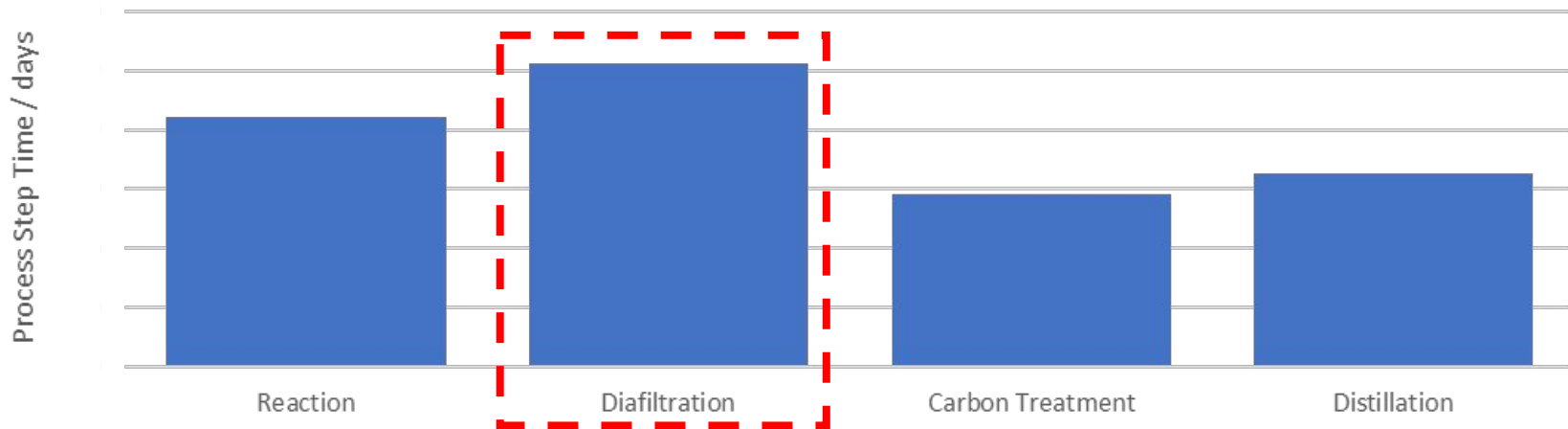


# Site X: Applying Zero Loss

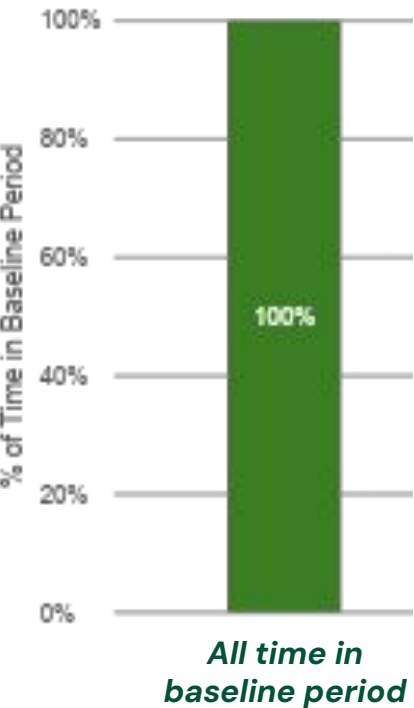
For increasing output, we are interested in losses at *The Bottleneck*:



Cycle Time Profile - Simplified



# Site X: Peeling back layers to find opportunity





# Why Don't Most Production Lines Improve?

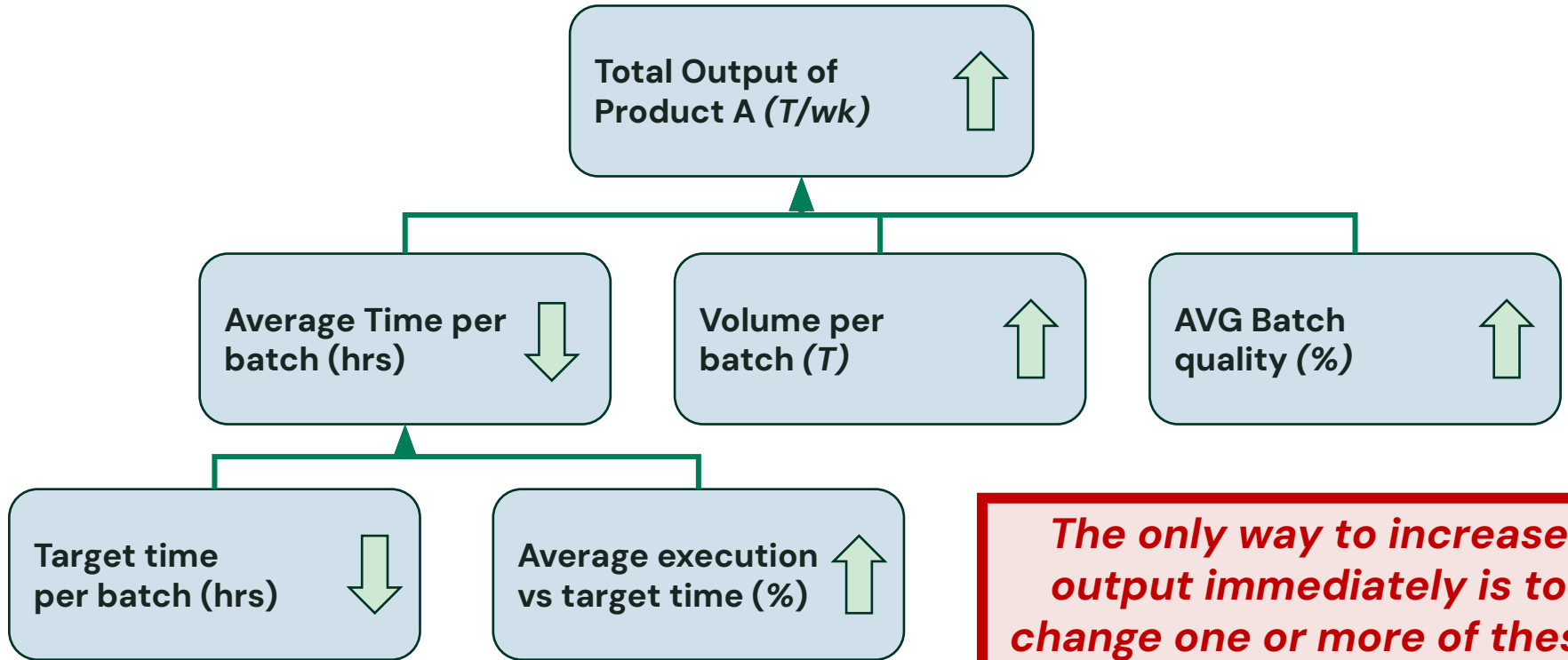
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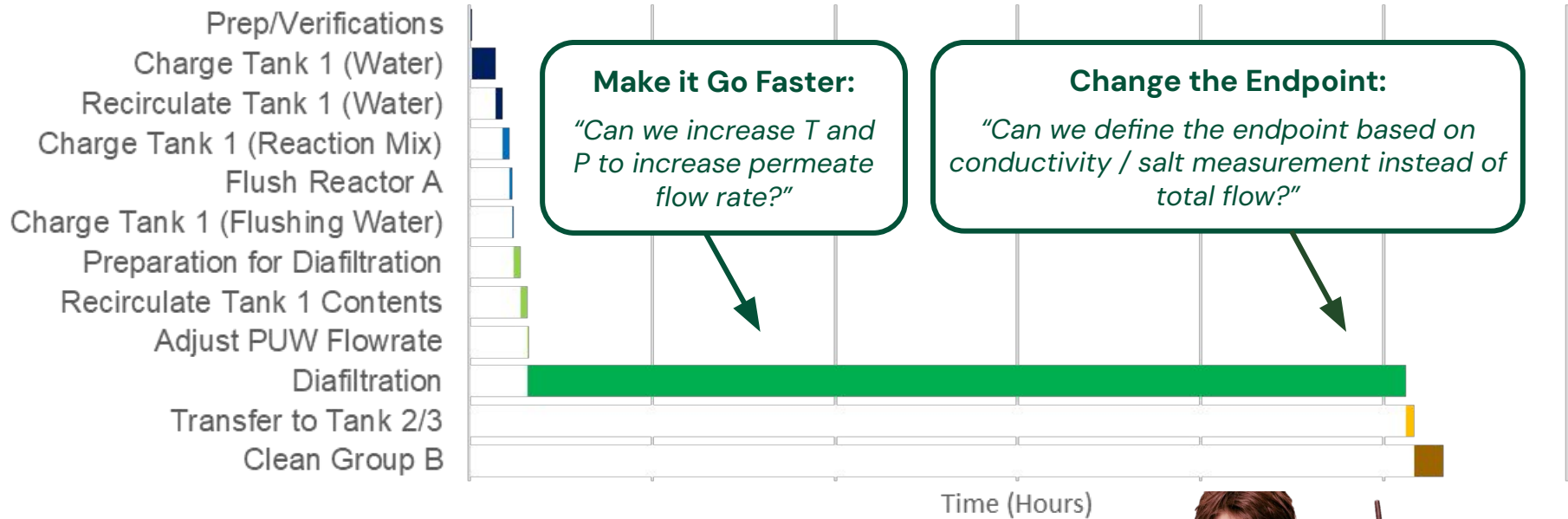


## Back to basics: *How to make more product?*



***The only way to increase output immediately is to change one or more of these fundamental variables***

# Site X – Target time: *How to make bottleneck process faster?*



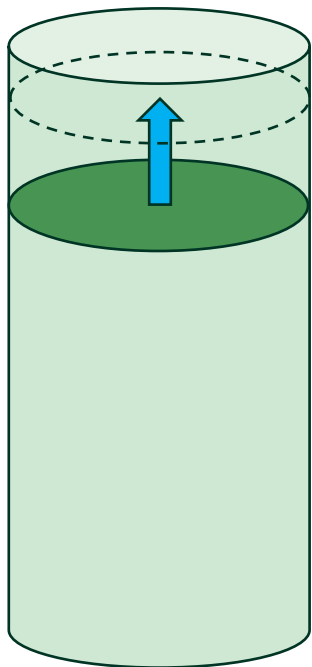
**The magic words:** "What would need to be true for us to...?"





## Site X – Batch size: *How to increase batch size?*

*Can we increase batch size?*

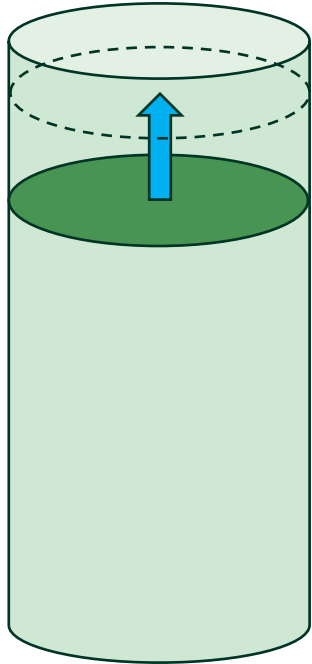


**“Batch size is fixed by the carbon columns.**

**When we commissioned the process we filled the carbon columns up to the 80% mark to avoid risk of overspilling”**

# Site X – Batch size: *How to increase batch size?*

*Can we increase batch size?*



*"What would need to be true to increase batch size?"*



*"Well, we would first need to prove it in the lab."*

*And we would need to segregate the first production material until test results come through.*

*If we could do that, it might be possible"*



# Why Don't Most Production Lines Improve?

1. They don't believe they *can* improve
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## Getting Things Done:

### ***Motive:***

Do they want to make improvements?

### ***Means:***

Do they have all the necessary skills?

### ***Opportunity:***

Are there big barriers to change?

# **The Means – *do my team have the skills needed to drive improvement?***

Most team members have the skills or at least the potential

High standards and strong performance are contagious

**BUT:** Underperformance and poor discipline can be too

**Jim Rohn:**

You are the average of the 5 people you spend the most time with



**The Motivation – Persuasion: do my team want to improve? Do they want to do it this way?**

**Tell people why this is important and how they fit in. Explain how this all works.**

## Get feedback, and tell them again.

[illegible]





# The Motivation – *What if Persuasion isn't enough?*

## PICNIC Approach for Accountability:

**P – Positive**

**I – Immediate**

**C – Certain**

**N – Negative**

**I – Immediate**

**C – Certain**

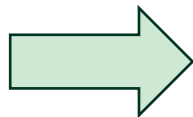
Three keys for *driving* behavior change:

1. **Specificity** – am I clear on **exactly** what the expectations are, and why?
2. **Accountability** – If I do it or do not do it, **will there be consequences?**
  1. Use the **PICNIC** Method
3. **Consistency** – Am I confident that the above **won't change?**



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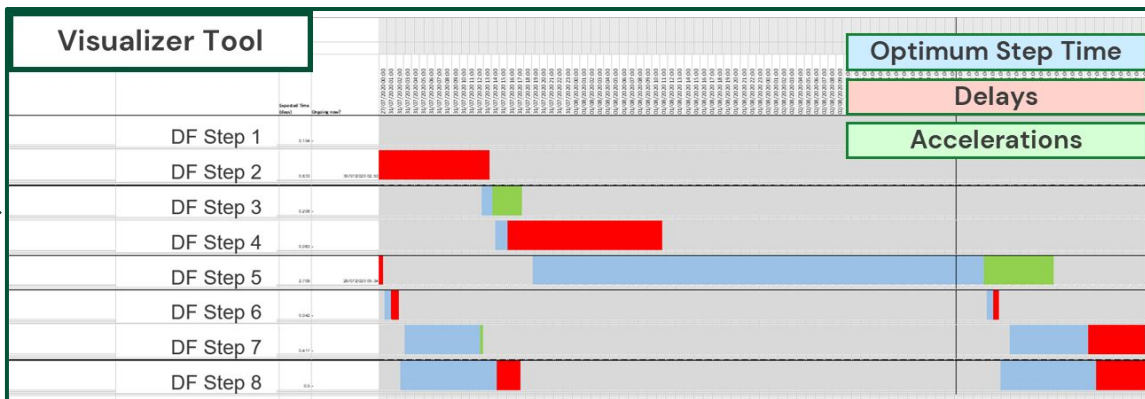
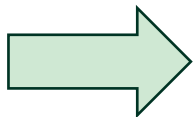
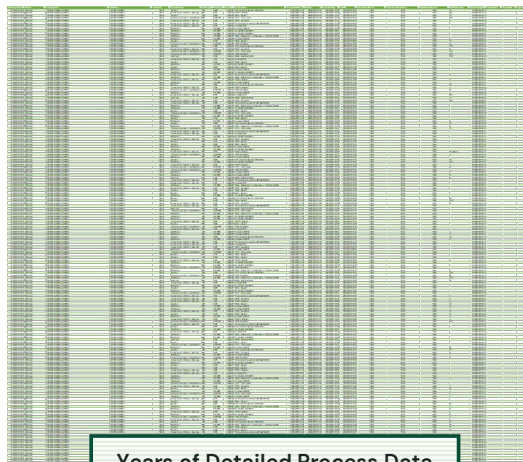
Category	Value
Planned	~45
Actual	~95

[illegible]

## Years of Detailed Process Data



# Site X – Accountability for execution vs target time



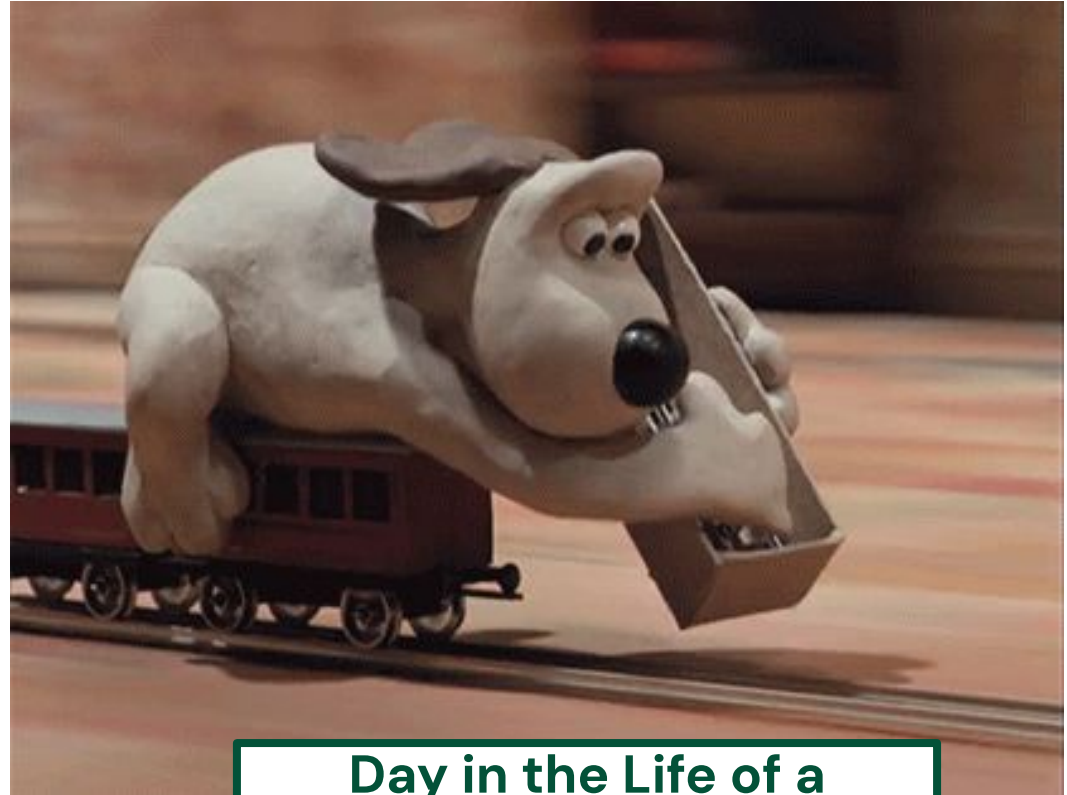
Generate instant accountability by making your problems the **BIGGEST, REDDEST** thing on the board the team look at every day



# The Opportunity – *do my team have what they need to improve performance?*

## Common Failure Modes:

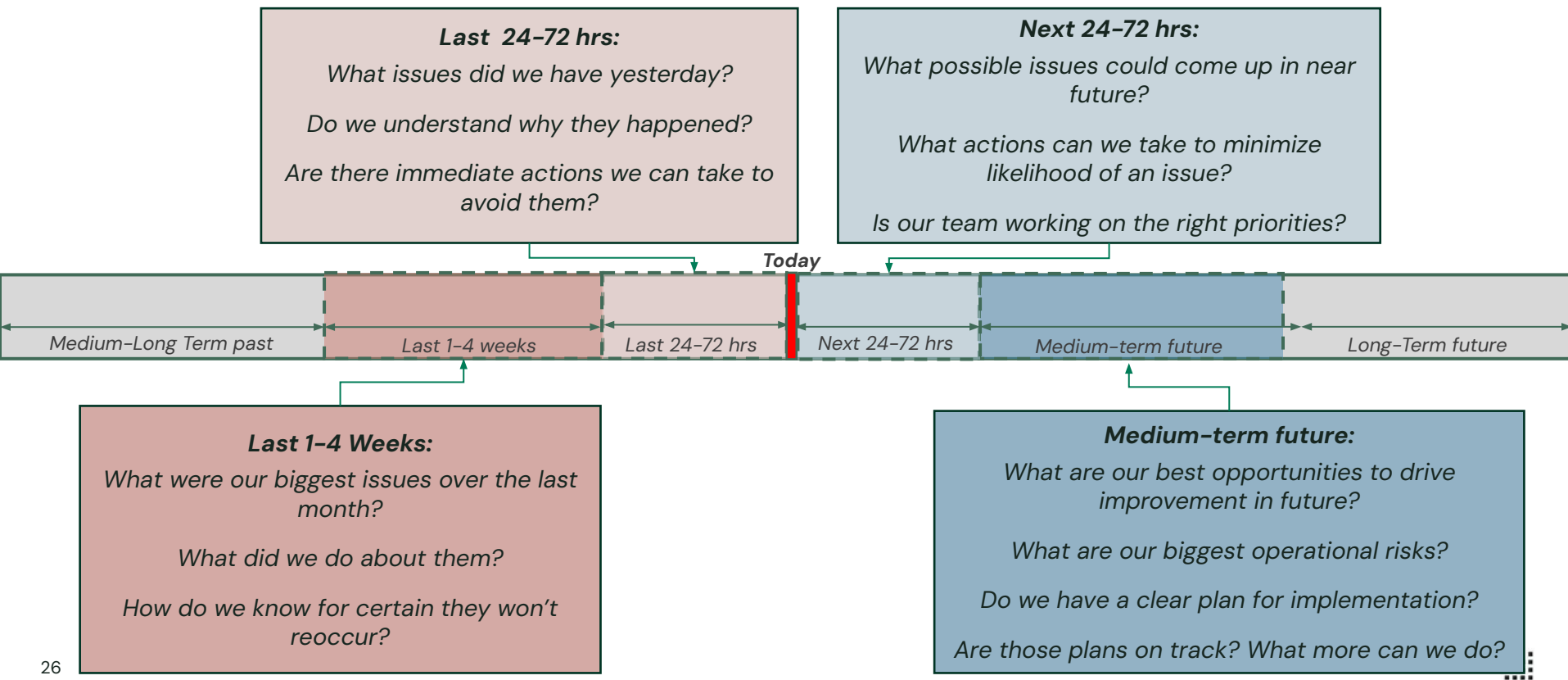
1. **Time** – No time set aside for improvement work
2. **Autonomy** – Not able to drive changes through themselves
3. **Access to Resources** – No access to SMEs or capital



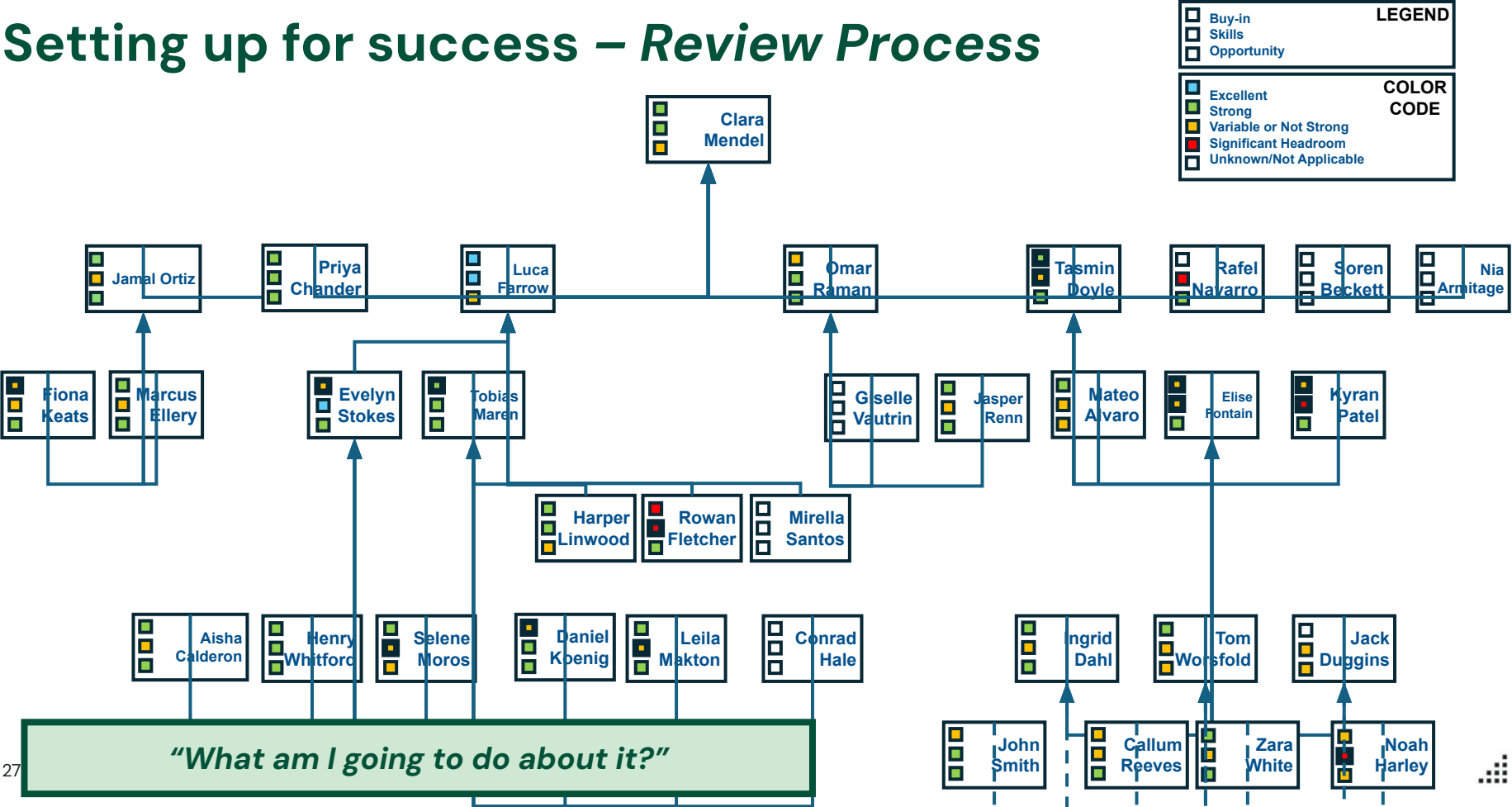
**Day in the Life of a  
Production Engineer**



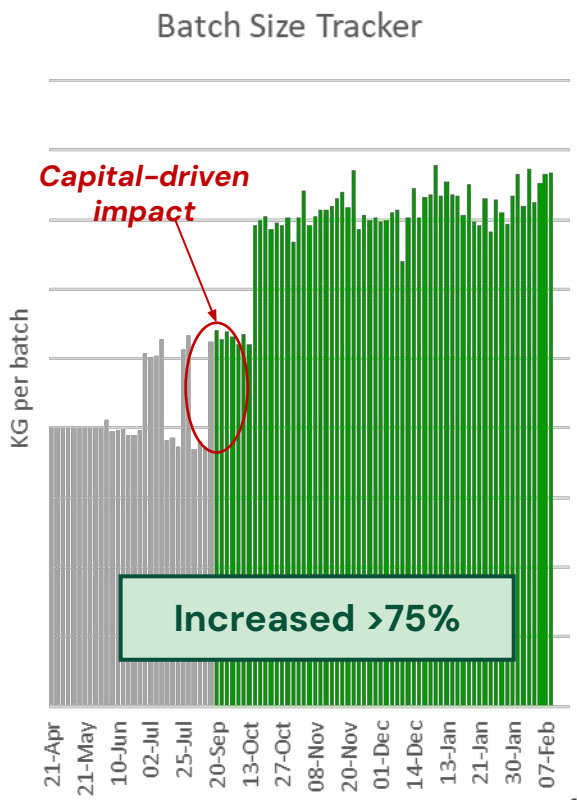
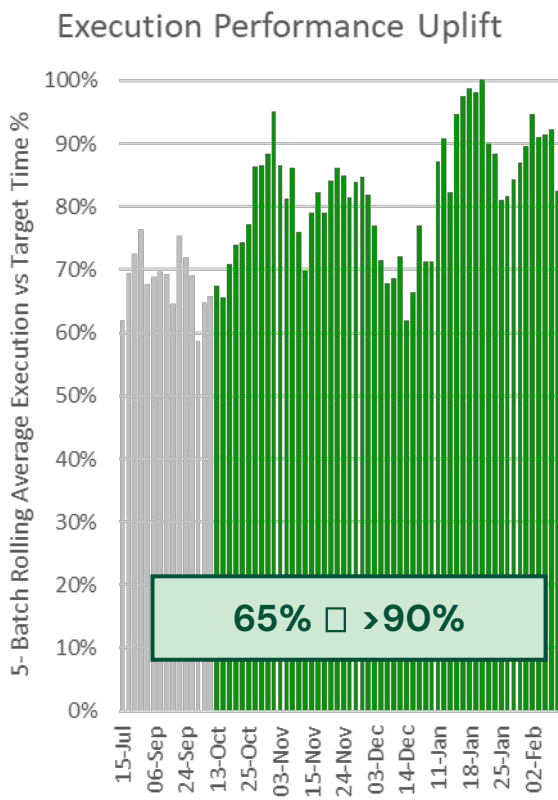
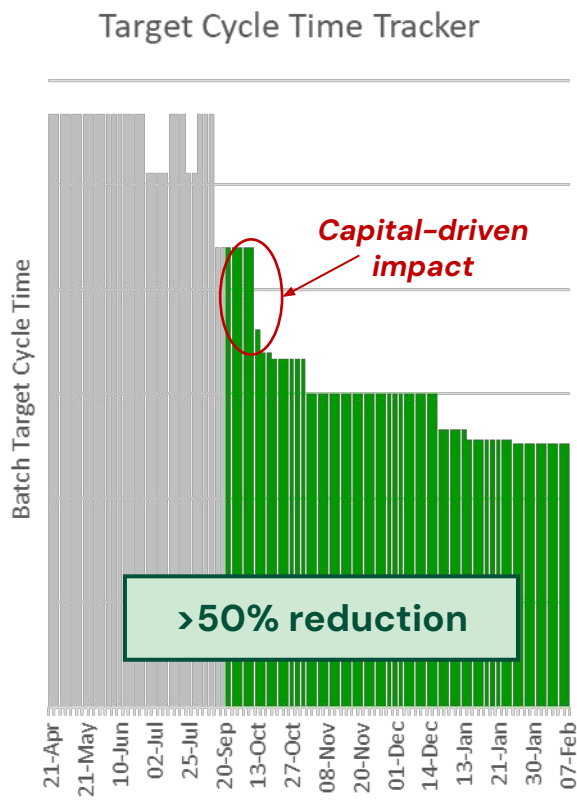
# The Opportunity – *Setting aside time for improvement*



# Setting up for success – *Review Process*

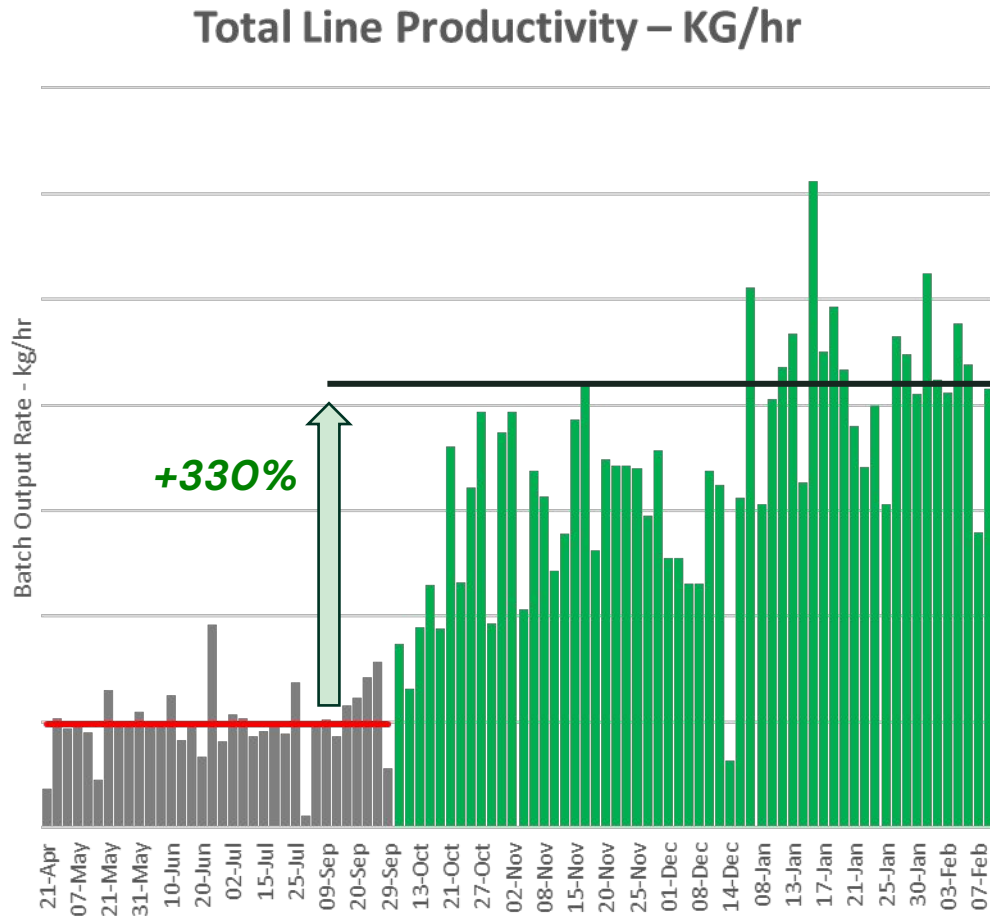


# Finally: What Happened at Site X?



# What Happened at Site X?

- Total weekly production increased 200% within 12 weeks, 330% within 16 weeks
- All customer commitments met with 100% OTIF
- Program expanded to rest of facility, where KG/hr productivity for 10 production lines has been growing >10% YoY for 3+ years
- Site OpEx trained to continue finding and driving performance:
  - **Focus on fundamentals**
  - **Lots more magic words**
  - **No more sea monsters**





# Summary:

If you want to improve performance immediately, you need to consider the three factors:

1. **Belief:** *Do my team know the true, Zero Loss potential?*
2. **Questions:**
  - I. *Are they focused on fundamental value drivers?*
  - II. *Are they asking What Would need to be True to close the gaps?*
3. **Set-Up:** *Does the team have the Motive, the Means and the Opportunity?*



# Questions



# Get in touch:

We appreciate you taking an interest in Chartwell,  
please contact us if you have any questions.

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