

# **Our Approach, Capabilities, and Case Studies**

**AMEND**

## **DATA ANALYTICS**

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01

## AMEND Overview

02

## Data Analytics Explanation

03

## DSaaS Case Studies

04

## The Importance of Automation

### **PURPOSE**

To share AMEND's observations and provide AMEND's capabilities

### **DESIRED OUTCOMES**

1. To Provide Clarity with Data Analytics
2. How Data Analytics will Impact the Company

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**AMEND**

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## **AMEND Overview**

# Meet the Partners

“The AMEND team is jam-packed with smart, talented people who push you to think bigger and do more. I would put any member of the AMEND team up against anyone from McKinsey, any day, because I know they'd win.”

– COO \$75MM Manufacturer, former top tier strategy consultant



Craig Todd



David Velie



Bobby Smyth



Paul Delaney



Geoff Marsh



Matt Murphy



# Why AMEND?

## **Our mission proudly states:**

We are an elite force of trusted advisors improving lives, transforming businesses and bettering our community. We do what we love with the people we love.

**Our impact:** we value transparency in projects and are driven by a dedication to doing right by your organization.

**Our reputation:** getting things done. We are on the shop floor and partnering with your team. We don't just tell you that what you need to improve or change. We jump in with you.

**Our Approach**

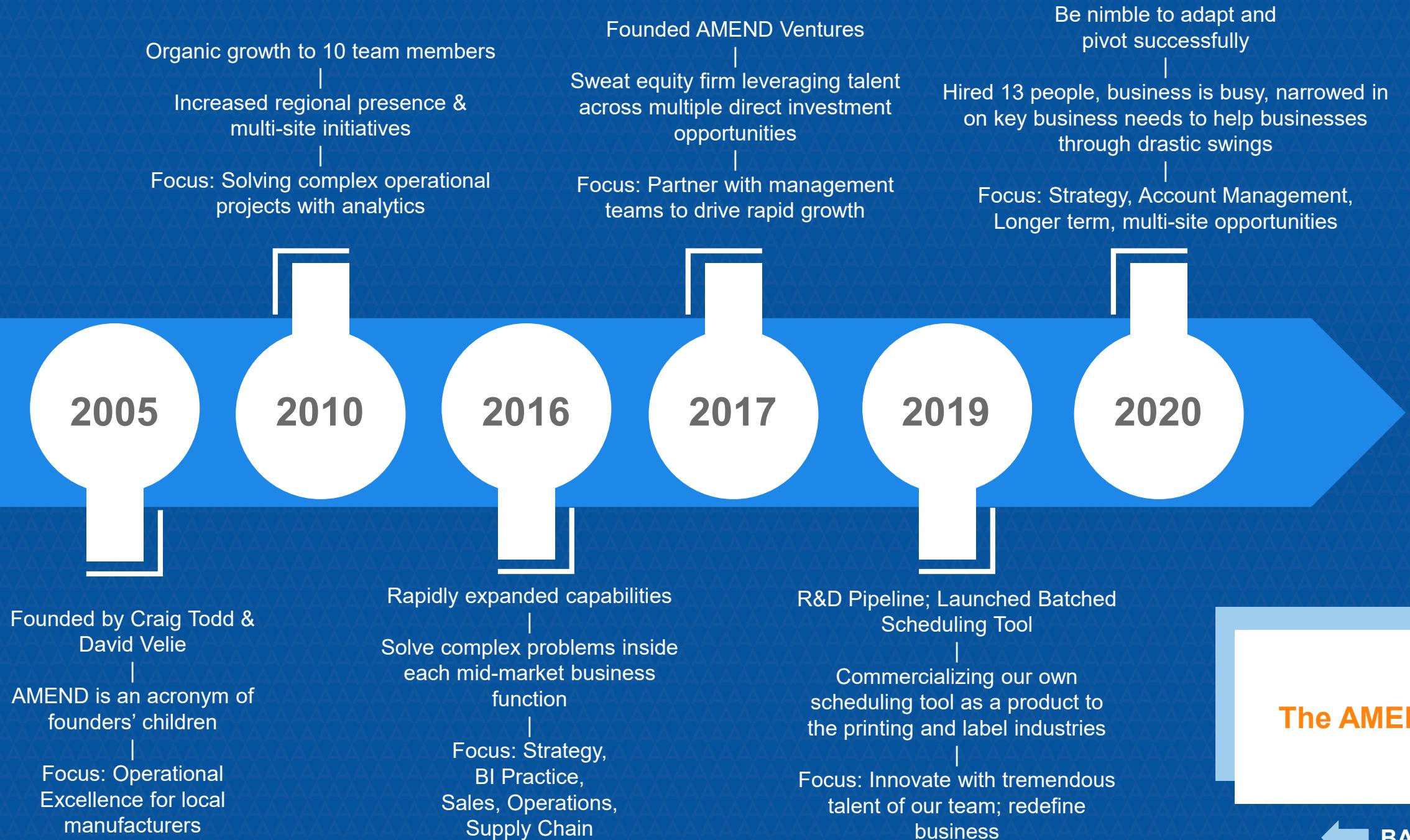


**Industries Served**



**Offerings**





# Our Approach

Our mission states that we  
“transform businesses.”

What does that mean?

We believe transformation cannot only involve people, or processes, or metrics. You can't just focus on one or two of these areas. All three pieces work together to create and sustain meaningful changes in organizations.



**TRANSFORMATION**



**DISRUPTION**

# Change Leadership

## The cost of project failure is high.

Failure can result from falling back into old habits and refusing to adopt the change. It can stunt growth and innovation.

**Change Leadership** increases the chances of project success and drives business results.

AMEND has created a standardized, streamlined playbook to make change a priority and part of the strategy for success.



## What we do

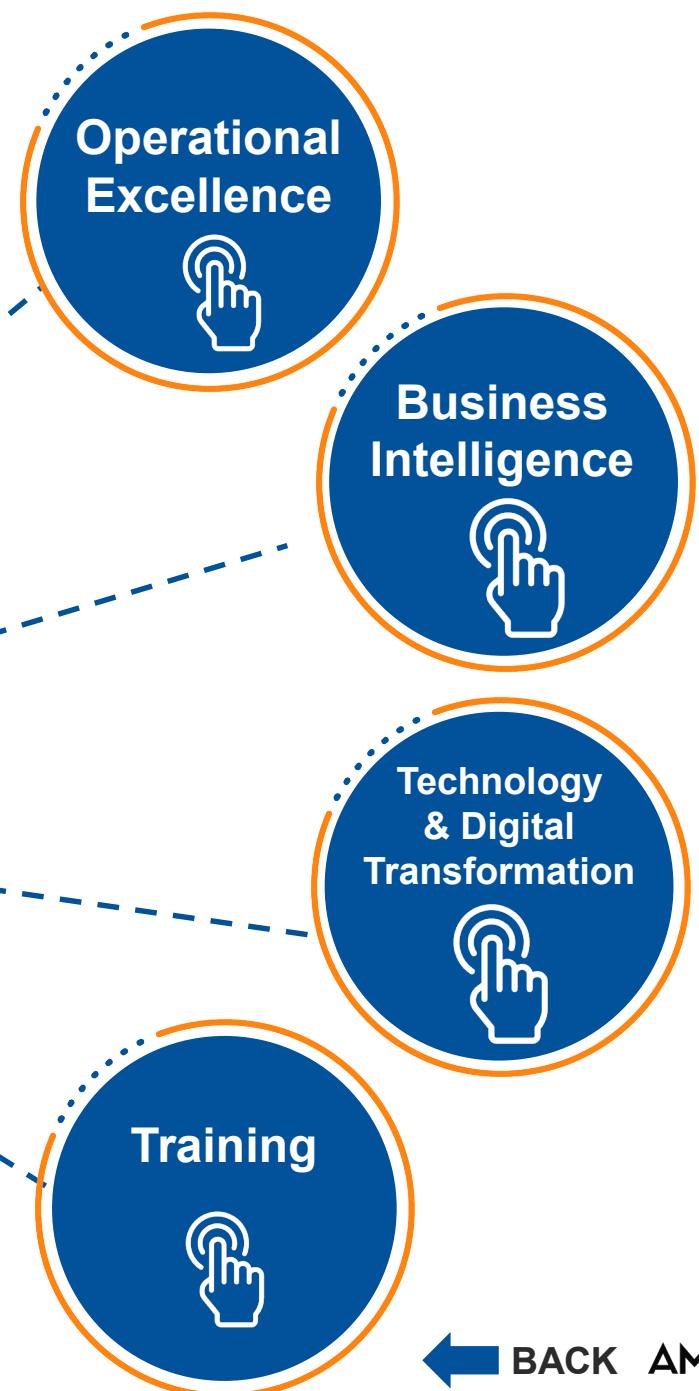
We utilize our **Change Management Playbook** which includes:

- Company-wide training and continuing education on Change Management
- 100+ Change Management tools and templates
- Multiple certified Change professionals on the team
- Knowledge base from hundreds of successfully completed Change initiatives
- Inclusion of Change tools within our **AMEND Quality System**

These resources support Change conversations and strategy. Our approach is **customized** to the project and people involved.

# Our Offerings

Our mission is to help our clients achieve the impossible. We love to dive into the problems that can't be solved -- the challenges that are too big to tackle -- because that's where real growth and transformation occurs.



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**AMEND**

The word "AMEND" is written in a bold, sans-serif font. The letters are primarily white, except for the two vertical orange bars that run through the "M" and the "E".

## **Case Study Examples**

# Case Study

## Observations

### Strong Lean Foundation

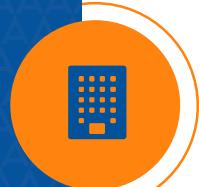
- Opportunities to Enhance Performance Management

### High Production Variation

- Opportunities for Simulation Modeling, Supply Chain Planning, & Inventory Management

### Diverse and Growing Product Catalog

- Identify the so-what of technology integration



Rapidly Evolving Technologies

Changing Definition of Best-in-Class Operations

Speed to Implementation

### Key Questions

- How are you attacking industry 4.0 and the digitalization of production
- Where are you in the journey with optimization
- Are there any active initiatives around inventory management
- How do you view the role that data science will play in future operations
- What internal policies exist around change management

The logo consists of the word "AMEND" in a bold, sans-serif font. The letters are primarily white, with the "E" featuring two orange horizontal bars extending from its top and bottom. The logo is set against a dark blue background with a subtle, light blue triangular grid pattern.

**AMEND**

## **Data Science as a Service Case Studies**

# Data Science as a Service

Business transformation and industry disruption require leveraging information and technology to make efficient decisions. AMEND partners with your business to understand the **What, Why, and So What** of your organization's data.

Innovation Prioritization

Innovation ROI Projections

Guide large innovation through organization

Data Science Services by Opportunity

Define and deliver Data Science Platform

Improve throughput

# Case Study

## Manufacturing Process Simulation



### Company Profile

- Large manufacturer
- \$1B+ facility



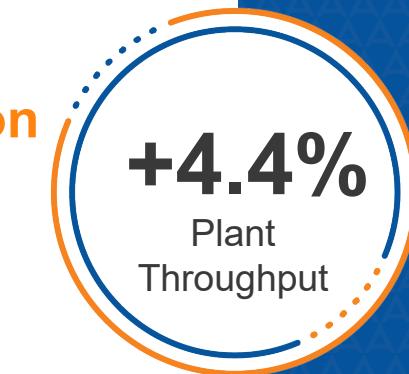
### Landscape

- 10 potential bottleneck steps



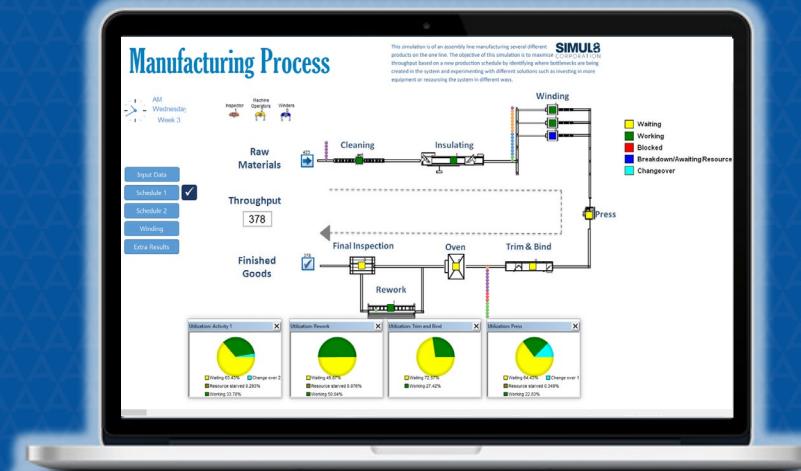
### Problem Statement

- Unclear and unknown bottleneck
- Decreasing average productivity
- Outdated standard times
- Highly variable process
- Low level of controllable factors
- Large amount of under-utilized data
- Target: 2.5% increase in throughput

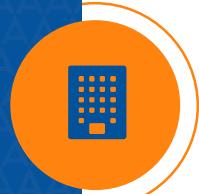


### Delivery

- Simulation of target process cycle
- Identified significant and actionable bottleneck
- Examined and reported further root causes of bottleneck
- Implemented new recommended standard time for bottleneck step
- Implementation impacted all downstream processes to increase plant throughput



# Case Study



## Innovation ROI & Ideation Sessions

# Company Profile

- Grocery Retailer
  - 2800 locations

# Landscape

- Customer experience varied largely by store
  - Impossible to put reasonable metrics against it

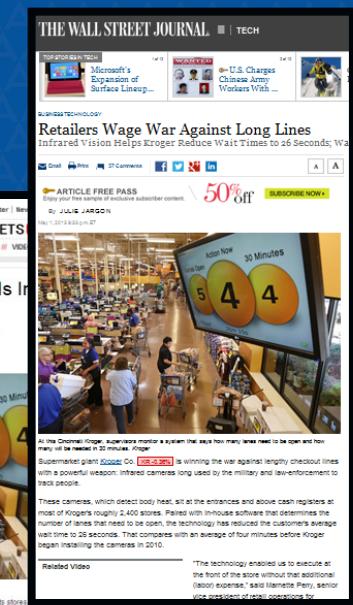
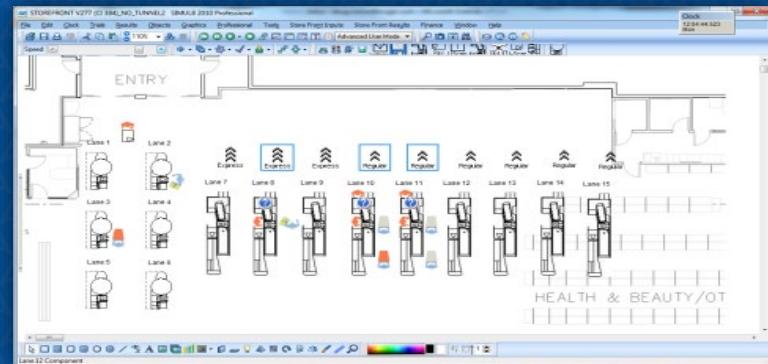
# Problem Statement

- Improve wait time without breaking the bank



# Delivery

- Started with math models to evaluate performance of new ideas. Discovered something even better.



# Case Study

## Data Science Platform

### Company Profile

- Data Science Firm

### Landscape

- Customer success is high
- Strong data science models
- Very little reuse of models or reports

### Problem Statement

- Improve reuse and repeatability
- Need to streamline data pipelines



Production Delivery  
40% faster

Data Pipeline Standardization

Development & Deployment Standardization

### Delivery

- Clear decision rights and responsibilities
- Identifying the common 90% to streamline data pipelines and analytics reusability
- Creating and deploying code standards and expectations
- Training to allow for greater project agility
- Identifying enterprise deployment

# Case Study

## Innovation Prioritization

### Company Profile

- Large Grocery Retailer
- Fortune 25
- \$100B+ annual sales

### Landscape

- Many innovative ideas at various unknown stages
- Larger online and brick and mortar retailers dominating market share gains

### Problem Statement

- Improve innovation speed from idea to delivery
- Improve impact of innovation



### Delivery

- Created agreed upon innovation funnel and stage gates
- Streamlined decision making; project leader tasked to make it happen
- Reduced risk - Tested business model assumptions quickly; digitally and physically
- Create a “Yes” culture
- Transparent success metrics with full alignment to finance
- Freedom to practice

# Next Steps

AMEND

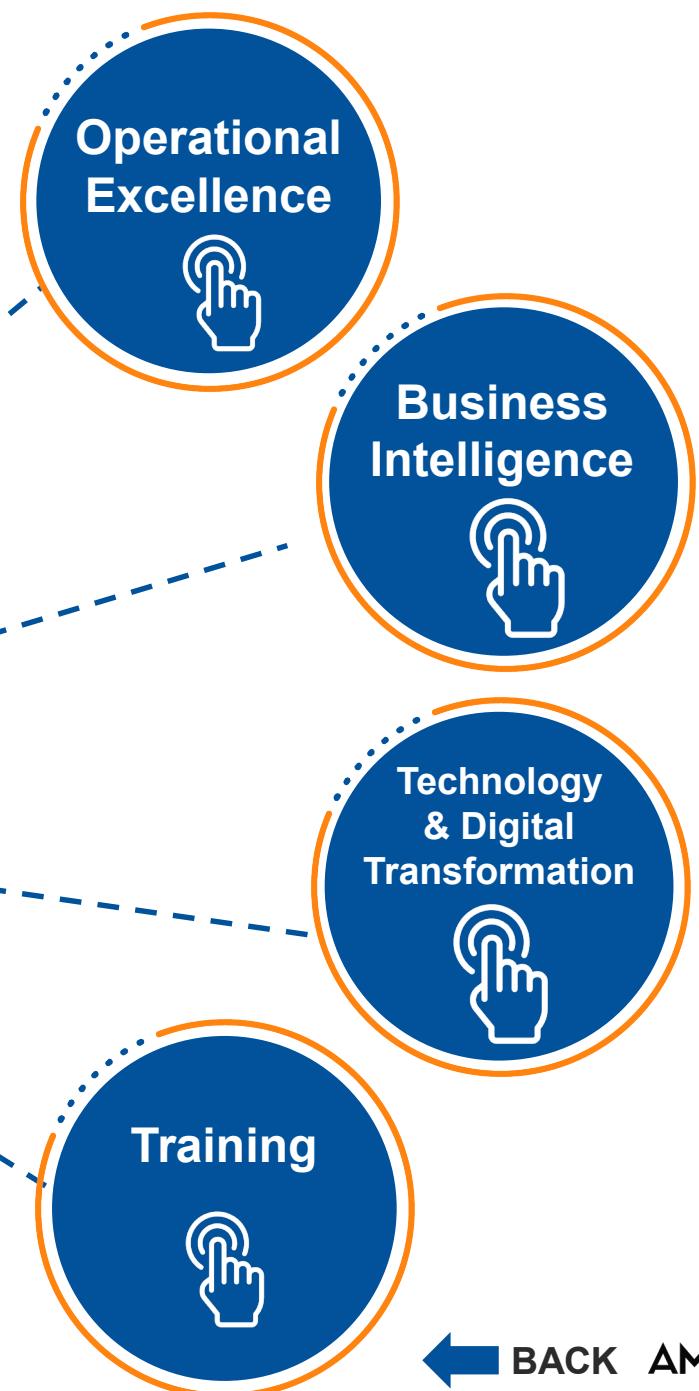
AUTOMATION

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# Appendix

# Our Offerings

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# Advanced OpEx

We start with the basics -- getting your people, processes, and metrics on track to achieve operational excellence.

Once we've tackled the core issues and have created a foundation, we look to bring you to the next level. Our Advanced OpEx practice grows with your organization.

Our team can implement anywhere from one machine reporting dashboard, to a complete IoT manufacturing transformation.



# Business Intelligence & Advanced Analytics

Business transformation and industry disruption require leveraging information and technology to make efficient decisions. AMEND partners with your business to understand the **What, Why, and So What** of your organization's data.

Sales &  
Operations  
Planning

Product/  
Customer Mix  
and  
Profitability

Advanced  
Planning and  
Scheduling

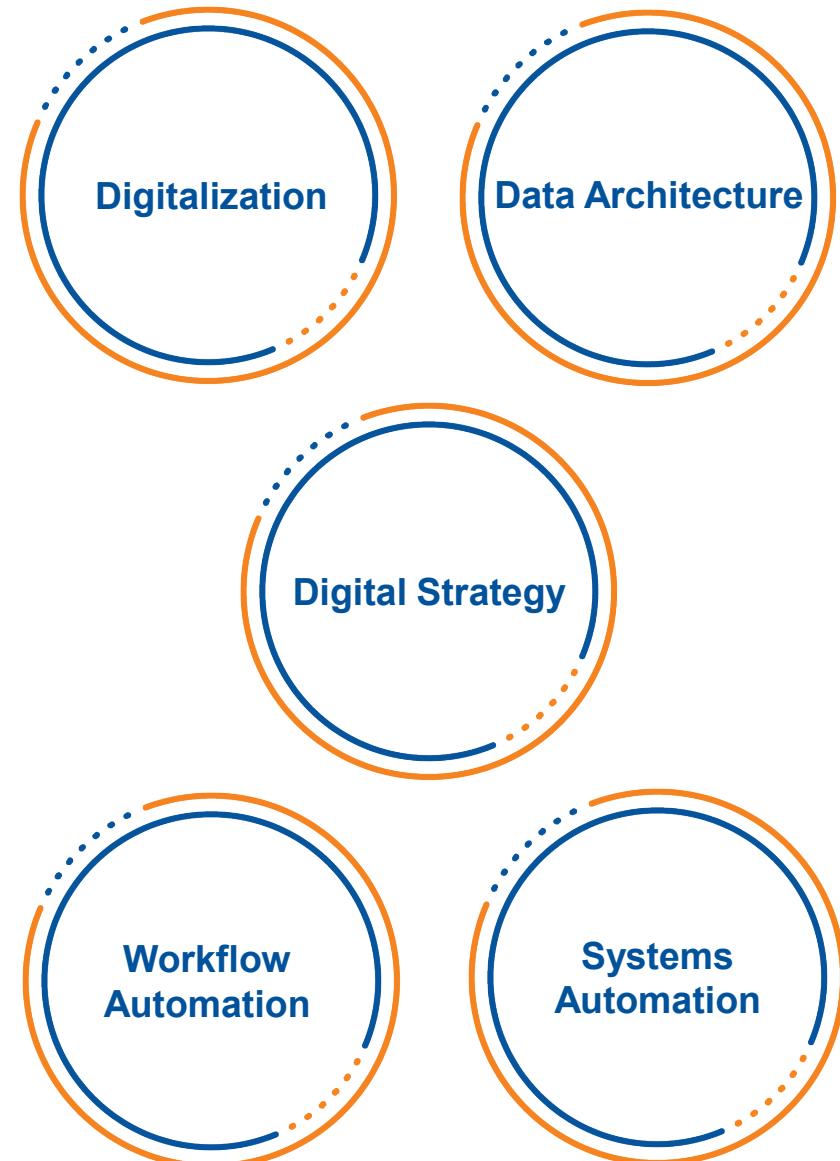
Business  
Process  
Automation

Cost  
Analysis

Portfolio  
Monitoring and  
Reporting

# Technology & Digital Transformation

In the digital world, the biggest risk is embracing the status quo. Companies that are properly adopting digital transformation are seeing triple-digit returns on their investments.



# Training

We use more than 150 tools to deliver results for our clients. As business consultants who see the full picture, we want to be the reason you never need us to solve a specific problem again.

We leverage training, teaching, and knowledge transfers to ensure sustainable improvement. We even use the same training to develop our own team members.



Lean/  
Six Sigma



Hoshin  
Kanri



Microsoft  
Power BI



Strategic  
Communication  
(DISC)



Leadership &  
Change  
Management



SQL  
(and other  
analytics tools)

# Mid-Market Industries Served



# Selection of Partnerships





# Case Studies

01

**Production Scheduling Optimization**

02

**Designing Analytics to Drive Sales Visibility**

03

**Operations Optimization Analytics**

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**Training & Standardization**

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**Cost Savings and Financial Engineering**

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**Organizational Change, BI, and OpEx**

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**Medical Device Production Launch and Escalation**

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**Value-Creation with a Portfolio Monitoring Tool**

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**Process Mapping and Automated Scheduling**

# Case Study

## Production Schedule Optimization



### Company Profile

- Plastic extrusion manufacturer
- \$180MM facility



### Landscape

- 5,000+ unique SKUs
- 50+ production lines
- 200+ daily customer orders



### Problem Statement

- High backorders
- Long lead times
- Numerous customer complaints
- Inability schedule production to properly **stock inventory** and **reduce downtime**

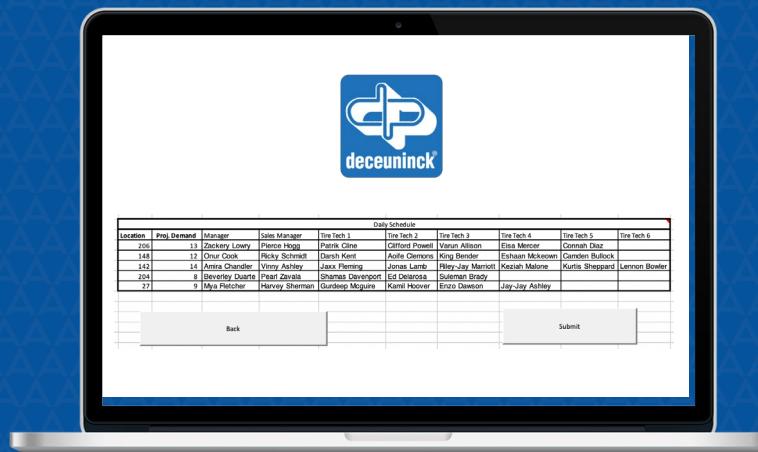
70% to  
85%  
fill rate

100%  
backorder  
elimination

50%  
scheduling  
time reduction

### Delivery

- Built custom scheduling software
- Eliminated 100% of backorders
- Approval to duplicate approach in international facility



# Case Study

## Designing Analytics to Drive Sales Visibility



### Company Profile

- Consumer packaged goods
- \$250MM business

### Landscape

- 40 Sales channels
- 7,000+ SKUs
- 85,000+ ship-to-consumers

### Problem Statement

- Growing 30% YoY without mature database or reporting infrastructure

0% to  
**100%**  
Automated reporting

**50+**  
Dashboards created

### Delivery

- Best-in-class sales team reporting packages with security and mobile access
- Price/Volume mix analytics to determine growth
- Automation & integration of sales and financial reports



# Case Study

# Operations Optimization Analytics



# Company Profile

- Plastic manufacturing
  - \$12MM business

# Landscape

- 9MM+ Product combos
  - 500+ unique customers
  - Family-owned

# Problem Statement

- High backlog
  - Long lead times
  - Poor on time delivery
  - Customer dissatisfaction
  - Poor scheduling management



# Delivery

- Determined downtime drivers through reporting insights and automation
  - Implemented improved shop floor leadership based on data-driven decision-making



# Case Study

## Training & Standardization

### Company Profile

- Firearms manufacturer
- \$100MM facility
- \$800MM business

### Landscape

- 100+ SKUs
- 20 Production Lines
- 500+ daily product demand

### Problem Statement

- Inexperienced operators
- Lack of training materials
- Minimal cross-training
- High scrap rates
- Low throughput
- High turnover



+29%

Throughput

-5%

Scrap

From 2-3 months to  
**1 Week**

Average onboarding time



### Delivery

- Full Standardized Training Program
- 48 sets of standardized work instructions (SOPs)
- 30 training videos
- 31 hands-on assessments templates
- Cross training matrix

# Case Study

## Cost Savings

### Company Profile

- Tier 1 automotive supplier
- \$165MM business

### Landscape

- 8 production lines
- 550+ employees
- US & MX Plants

### Problem Statement

- 20% decrease in sales
- Undocumented processes and job assignments
- Limited granularity to cost data
- Limited technical resources on client team

**\$3.3MM**

Net cost reduction



### Delivery

- Defined unknown cost drivers
- Modeled the largest variable cost operation
- Built a dynamic supply/demand model

# Case Study

## Organizational Change, Business Intelligence, and Operational Improvements



### Company Profile

- Labeling manufacturer



### Landscape

- 1MM+ unique products made-to-order
- 100+ unique orders processed/day



### Problem Statement

- Manual processes and significant “tribal knowledge”
- Considerable waste and shop floor inefficiencies
- Many “reports” but little actionable information
- Multiple people analyzing data and arriving at different results

[Read more >>](#)



**Results on following page >>**

## Organizational Change & Enterprise Value

AMEND's David Velie served as interim COO at ILS and came alongside leadership to first look at the team responsible for the desired outcomes. We evaluated the current-state org chart to ensure the right team was in place to scale the organization. We stacked the team with "A" talent and drove organizational change by moving to a performance-driven culture. We also assessed which industry verticals to target and defined strategies to penetrate those verticals.

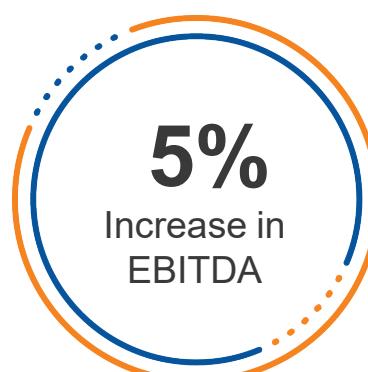
## Process Improvements

We mapped and evaluated current-state processes, targeting throughput and waste. Root cause analysis was used to determine the "why" behind the underperformance. We then implemented improvements to streamline these processes, including reengineering the entire order-to-cash process. Establishing new processes and redefining KPIs changed the way ILS looks at their business from a day-to-day perspective.

## Business Intelligence & Technology

Many of ILS's inefficiencies were resolved with the implementation of Business Intelligence and technology. Existing reporting mechanisms lacked the level of granularity needed to truly understand what was happening in the business. AMEND built and deployed enterprise-wide automated dashboards and reporting (including customer-facing reports) to create a single-source of truth for all KPI's.

Additionally, the scheduling process at ILS was manual, time-consuming, and relied heavily on tribal knowledge. We designed an Advanced Planning and Scheduling tool called Batched to automate and optimize their production schedule. We also performed Customer and SKU analysis and rationalization, identifying areas of opportunity for improved customer service and ways to become more profitable by eliminating certain customers.



# Case Study

## Business Intelligence Through Data Visualization

### Company Profile

- Firearms manufacturer
- \$100MM facility
- \$800MM business

### Landscape

- 100+ SKUs
- 20 Production Lines
- 500+ daily product demand

### Problem Statement

- Challenge: Produce 12,000 firearms per month
- Lack of detailed, manageable tool spend visibility
- Uncontrolled vending machine tool usage
- Inability to hold users accountable

**35%**

Total Spend Reduction

**\$60K**

Average Monthly Savings

**\$720K**

Average Yearly Savings

### Delivery

- Visualized tool spend by person, tool, date, machine, and location
- Trained executive teams how to hold users accountable
- Implemented new stocking levels with vendor



# Case Study

## Product Launch and Escalation



### Company Profile

- Medical device manufacturer
- \$4MM in startup funds



### Landscape

- 25+ future customers
- 1,000+ pieces/machine
- 0 machines built to-date



### Problem Statement

- High backlog from dozens of hospitals nationwide
- No process or standard operation for building equipment established
- Pressure to use startup funding to begin operation and installation



### Delivery

- Created SOP's enabling first full machine to be built
- Facilitated operational leadership to decrease production times
- Installed machines in 7 new hospitals or care-provider locations

# Case Study

## Empowering Value-Creation with a Portfolio Monitoring Tool



### Company Profile

- Private Equity
- HQ in Cincinnati, OH with portfolio firms across the U.S.



### Landscape

- Eight portfolio firms with very varying business models and systems



### Problem Statement

- Limited access to real-time information for decision making
- Inability to quickly share qualitative and quantitative information with key stakeholders
- No standardized or automated reporting across portfolio companies, nor for their board and investors
- Compiling manual data creating a significant burden on portfolio companies



**Results on following page >>**

## Identified KPIs

We partnered with the PE firm to define KPIs for the fund and individual-level assets. Across the portfolio, we focused on daily orders and daily sales, liquidity, and profitability. We also focused on non-financial metrics, like delivery and quality, and longer-term KPIs like EBITDA, adjusted EBITDA, and the ability to see these changes over time for all companies at once.

We then held feedback sessions with each portfolio company to tweak the KPIs and understand their current reporting processes. Before diving too deep into the data, it was key that we were tracking the metrics that matter.

## Integrated Data Sources

After establishing a baseline for KPIs and current reporting processes, we mapped reporting systems for each portfolio firm and integrated their data sources into Power BI.

We wanted to create a standardized view of the portfolio knowing that each company has a radically different business model, processes, and data systems. We worked with 1-3 systems per company, defining the nuances of each system that made it possible to track the KPI's we needed (e.g. calculating sales was different at each company). We worked with dozens of systems: Salesforce, Infor, Encompix, Quickbooks, Syspro, TMW, and several other homegrown or industry-specific systems

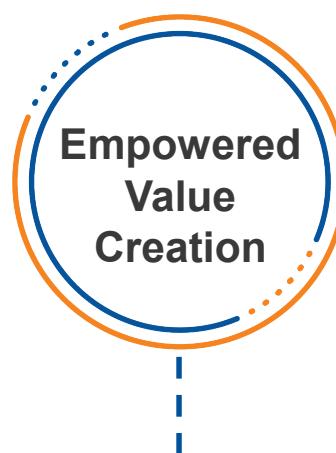
We built relationships and worked closely with each of the seven portfolio companies in this effort, combining our systems expertise with their day-to-day knowledge of the business. Integrating directly to the data sources ensured the data feed was automated and eliminated any future need to manually pull data.

## Launched Real-Time Power BI Reporting

We created dynamic, real-time dashboards and reporting that equip the PE firm and its portfolio companies with the information needed to make data-driven decisions.

The tool empowers the PE firm to better communicate with its portfolio companies by allowing them to collect the data they want when they want it. The report includes a fund-level overview with the ability to get more granular (by company, by date, etc).

The PE firm can now more effectively monitor their investments in real-time and can act quickly to manage risks and issues. The tool enables progress tracking of their value creation, reduces manual data entry, and increases overall data integrity.



Created sustainable processes by eliminating manual data entry



Directly integrated with data sources to reduce opportunity for error



Provided never-before-seen data to key stakeholders

# Case Study

## Automated Scheduling



### Company Profile

- Manufacturing, Custom Garage Doors
- Est. Revenue: \$30MM/Year



### Landscape

- Hundreds of thousands of finished products - constantly developing more
- Manufacturing facility in Warsaw, IN with distribution centers in TN & MO
- Five primary production lines ranging from standard products to completely custom



### Problem Statement

- Limited process automation – many manual processes
- Limited technical resources
- Limited product tracking

**\$3.3MM**

Cost reduction

**100%**

Systems integration

**75%**

Reduction in scheduling time

### Delivery

#### • Process mapping

We reviewed the scheduling process to identify key automation opportunities. We documented process handoffs and potential future opportunities.

#### • Implemented Production Scheduling Tool

We designed a comprehensive scheduling program to minimize the manual nature of the scheduling process. The tool optimizes the schedule and reduces the need for "tribal knowledge." The previous method of spending 8 hrs/day manually scheduling was reduced to 3 hrs/day

# Data Science Assessment

## Data Science Assessment

### Process

- Clear measurements and milestones on projects and programs
- Small teams can move mountains
- Change management

### Systems

- Data readiness
- Platforms for creating, deploying, and reusing data science models
- Repeatability integrated into process

### People

- Leadership ability to adopt, integrate and sell solutions
- Professionals capability to develop, deploy and maintain world class solutions

Improve ROI  
on Data  
Science Efforts

No Impact      Pockets      Motivated      Delivering      World Class

Innovation  
Throughput

= TRANSFORMATION

PEOPLE + PROCESS + SYSTEMS

Faster Data  
Science Delivery

TECHNOLOGY + INNOVATION + PREDICTIVE

= DISRUPTION



# Continuing to Navigate Workforce Uncertainties as we Re-emerge

November 17, 2021

A photograph showing three individuals in a modern office environment. They are seated around a light-colored wooden table, looking intently at a large computer monitor. All three people are wearing white surgical-style face masks. The person on the left is a woman with long brown hair, wearing a light beige blazer over a dark top. The person in the center is a man with short brown hair, wearing a black blazer over a white shirt. The person on the right is a woman with dark hair pulled back, wearing a dark blue blazer over a white collared shirt. On the table in front of them are two white mugs and a small potted plant in a textured grey pot. Large windows in the background provide a view of an urban street scene.

# The One thing that's Certain is Change...

- Volatile labor market
- Ever-changing Guidelines
- Vaccine Strategies/Approach
- Return to Workplace Strategies
- Engaging People “where they are”
- Planning for the Future

A close-up photograph of a man with dark hair and blue eyes, lying in bed. He is wearing a light-colored t-shirt and has a concerned or worried expression, looking directly at the camera. The background is dark, suggesting a bedroom at night.

What is keeping  
you awake at night?

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What are your biggest “People issues”?

# What We Heard...

[You are not alone]

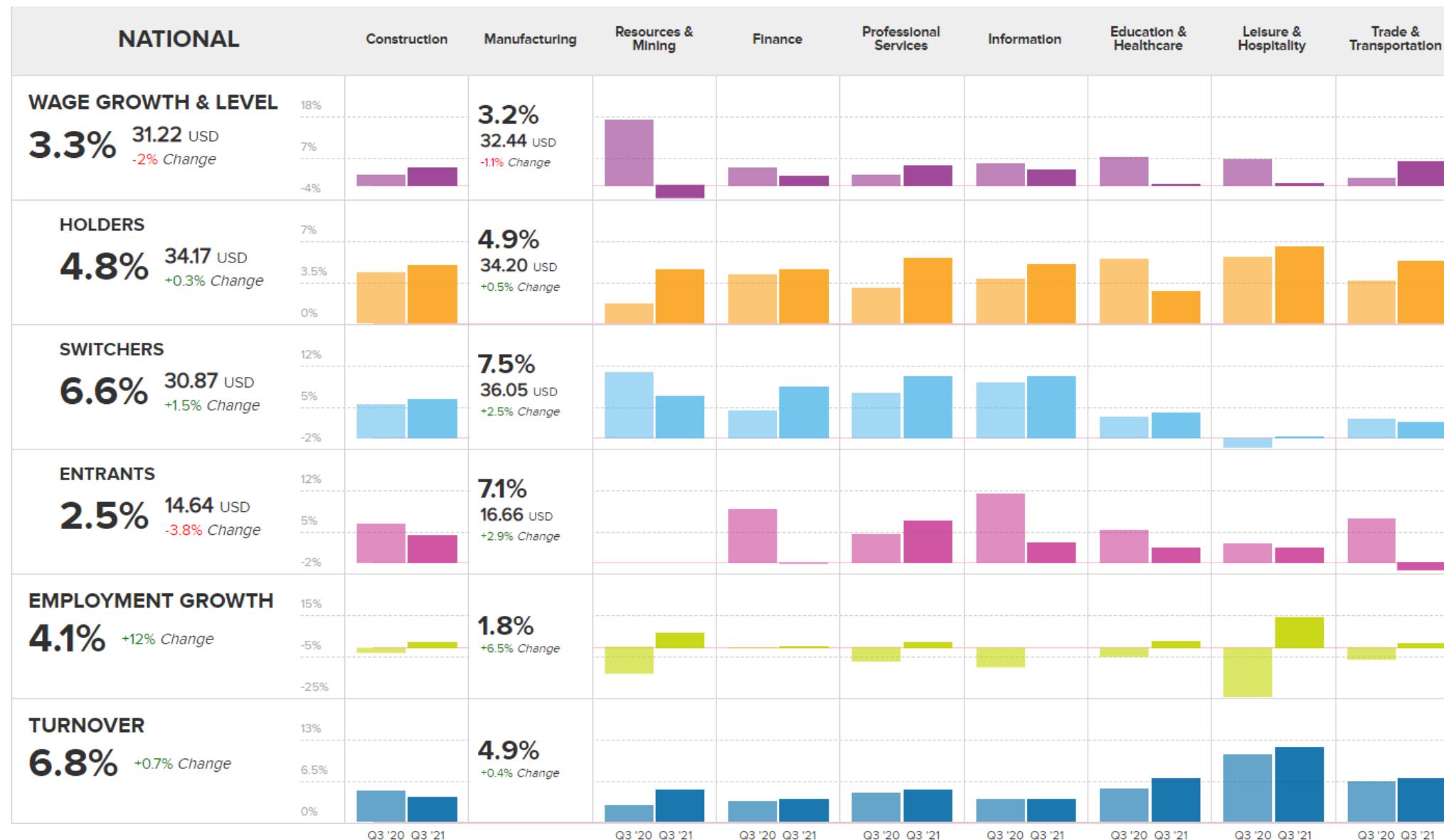


## Anticipate the “Great Covid Churn”

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2021 Has Been A Year Of Massive Job Turnover

- People hunkered down in 2020
- People are re-thinking their options
- People are ready to move closer to home
- Jobs have changed
- People want control over something





## Time to Double-down on your People Strategies

- What can you be doing now to retain your most highly-valued employees?
- What does your Talent Pipeline look like?
- Do you have a competitive compensation & benefits structure?
- What are the expectations and needs of the workforce now and in the future?
- The Power of an Employee Value Proposition (EVP)

A photograph showing a person's hands holding a large red and white horseshoe magnet. Below the magnet, three simple wooden cutout figures of people are standing on a reflective surface. The background is blurred, showing a person in a blue shirt.

## **Attract & Retain Valued Employees**

Create a Safe,  
Engaging & Rewarding  
place to work

Pay Competitively:  
Focus on Total Rewards



Think about...

---

- War for Talent
- Candidates now act like Consumers
- Work schedules: Flexibility is key



A photograph showing a person's lower legs and feet walking on a paved surface with a yellow and grey diagonal striped pattern. The person is wearing blue sneakers and dark trousers.

**66 %**

Percentage of People  
without Jobs right now  
want to Change Careers

**81%**

Percentage of  
Professionals prefer a  
Hybrid Work Schedule

# What's a stake?

**Revenues**

**Customer Satisfaction**

**Efficiencies**

**Retention**

**Hiring Costs**

**Organization Wellness**

**Employee Engagement**





# What Does Your Talent Pipeline Look Like?



## Talent Attraction

- Not just “Job Posting” anymore
- Engage them – Early & Often, Employment Branding
  - Get Creative
- Meet them where they are
  - Childcare/Flex Schedules/Security/Safety/Growth
- Consider Sign-On Bonuses, Refer a Friend Bonuses
- Flexibility is key!



A photograph showing three professionals in a modern office environment. They are all wearing white surgical-style face masks. Two individuals are seated at a light-colored wooden desk, looking intently at a large computer monitor. A third person stands behind them, also looking at the screen. On the desk, there is a small potted plant in a grey pot, a white mug, and some papers. In the background, there are large windows looking out onto a city street with buildings and traffic. The overall atmosphere is one of focused teamwork and safety.

# Retaining Your HVP

- Identify & Engage Them
  - Use the systems already in place
  - Actively re-Recruit our HiPos
- If They are Not Growing, They are Going
  - Stay Interviews not Exit interviews



## Talent Attraction & Total Rewards

- Need Competitive Wage data
  - Where are you getting your data?
  - Perform a Total Comp Structure Review/Competitive Analysis
- Does the offer match your Brand?
- Benefits are increasingly important
- Part-time Hours/Flex Schedules

# *Wellbeing: Now is Not the Time to Back off!*

Provide Holistic Benefits that support/enable employees'

- Life Work Balance
- Mental Health

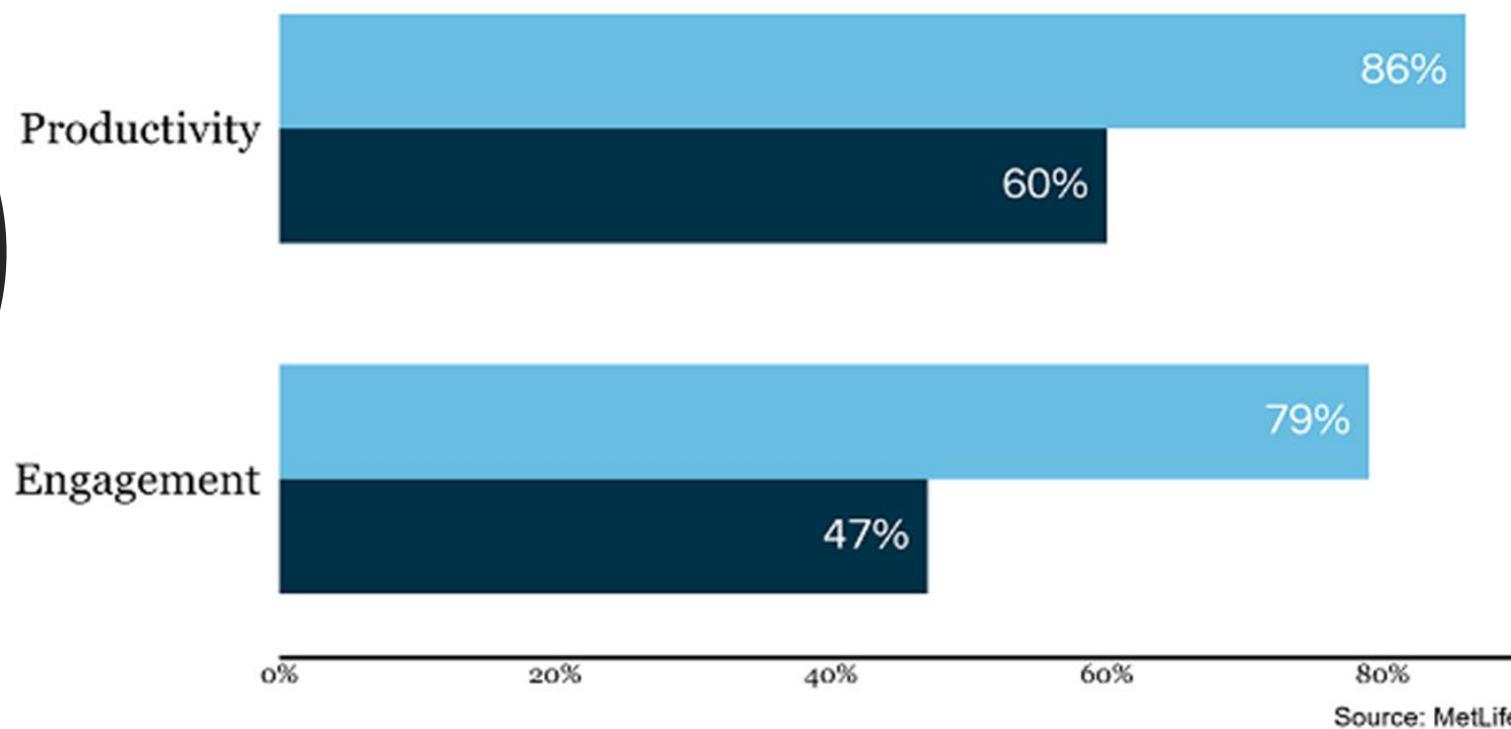


# Mental Health, Productivity & Engagement

## The impacts of mental health

Poor mental health is directly linked to reduced motivation, output

● Employees without mental health concerns   ● Employees with mental health concerns



# What can we do?



- Upskilling
- Reskilling
- New Talent Models
- New Sources for Talent

# Engageable Moments

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- Recruitment
- Onboarding
- Orientation
- Training & Development
- Employee Check-Ins
- Coaching
- Performance Feedback
- Mentoring
- Company Social Events
- Recognition Programs
- Communications from Senior Leaders







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PEOPLE  
MATTER



LEADERS  
INSPIRE



EXCELLENCE  
RULES