



GAINS
MOVE FORWARD FASTER



Practical AI for Real Results



Manufacturing firms have long navigated an evolving slate of operational challenges. For forward-thinking organizations, “digital transformation” has served as the primary framework for these efforts. While this broad approach has successfully helped businesses prioritize problem-solving and balance costs, it often leaves strategic gaps due to highly variable objectives and rollouts.

The latest directive to come down from upper management is to find ways to incorporate AI – a toolkit proven to improve the efficiency of existing processes and procedures.

For manufacturing business leaders, the opportunities are real – but so are the questions. Where do you start? How do you ensure the investment pays off? And how do you move forward with confidence when the stakes are high?

Luckily, navigating emerging technology doesn’t have to mean closing your eyes and swinging for the fences. Experts believe that a measured, practical approach can result in the implementation of purpose-driven AI within your business – delivering solid ROI and the kind of wins that build momentum from the ground up.

Beyond the Low-Hanging Fruit

According to Bill Benton, there’s still a significant amount of fear from business leaders when it comes to implementing certain types of artificial intelligence capabilities, and it’s unfortunately holding them back from sizable improvements.

Benton is the co-founder of GAINS Systems, the provider of a tech-enabled supply chain performance optimization platform designed for key functions including planning, forecasting, S&OP and replenishment.



Over the past few years, GAINS has incorporated a genetic algorithm-based AI engine designed to dynamically optimize inventory policies across the customer’s entire network. Unlike static planning tools, GAINS continually refines stocking strategies based on changing demand, lead times, and service targets.

This more advanced phase of AI is intended to go beyond just the automation of a mechanical task. Instead, said Benton, it’s about “how we can optimize better and truly autonomously execute.”

Focus on Four Areas

GAINS believes there are, generally, four high-value areas where leveraging AI tools can target performance gaps. The company reinforces that this is not opaque, black-box decision making, and that “every decision can be traced to service, cost and capital trade-offs.”



Ideally, these include:

- **Lead time prediction** - especially for those businesses with long lead times or global supply chains.
- **Demand prediction** - estimating demand at the right unit level and over the right timeframes.
- **Inventory optimization** - making decisions specific to each distribution center or retail location for businesses who carry large amounts of inventory.
- **Supply decisions** - the culmination of good data can serve as a “force multiplier” to automate decisions and allow buyers to focus on more strategic opportunities.

The Method: Move Forward Faster

Perhaps the most important thing, according to Benton, is to stop viewing AI as an “all or nothing” approach to your business. Incremental improvements, where the ensuing rounds target more challenging applications, can leverage your early experience and demonstrated successes. So, what does this look like? According to Benton, users must take advantage of the technology by applying features in iterative and incremental ways. As they build trust in the system with this practical approach, more and more use cases can be uncovered.

Benton says that there is already a lot of acceptance in the market for “basic” AI functions that are being used to support decision-making – things like summarizing large language models (LLMs), for example. And while more advanced technologies now exist that can readily tackle tasks like prediction, optimization or even autonomous execution, they are not commonly employed yet by manufacturing businesses.

For many, the reason for their reservation relates to very rational fears. “If you create an AI agent that makes a \$10 million purchase on behalf of the



organization and you only really needed half of it, that’s a problem,” said Benton. “So how do you have accountability?”

GAINS’ perspective is that this accountability is managed by defining the value-add from AI and adopting it in a controlled manner – ideally through simulation first, and in phases. This starts with scenarios where confidence can be applied toward very targeted metrics, whether that’s demand predictions for one product family or even unit predictions for a single SKU.

As the confidence level builds, the rollout can be expanded.

“Nobody notices the \$8 improvement,” said Benton, “but if you do that [many] times, you maybe save \$800,000.”

And it’s precisely these incremental wins that can offset the misses, which GAINS calls “high-profile errors.”



You might use AI to be a little bit better than a human in 99 out of 100 cases. But then, the 100th case “is the one product that everyone’s aware of and you miss by a mile,” said Benton, “but that miss – and its cost – was offset 10 times by a bunch of small improvements elsewhere.”

Starting with High Confidence

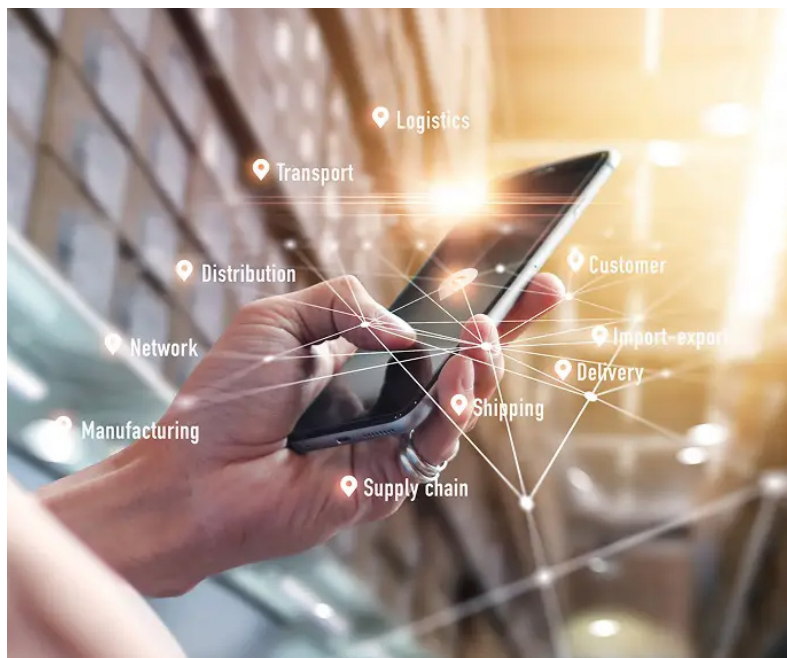
At the root of these initial projects are what GAINS refers to as “confidence thresholds.” You might only apply an AI agent or machine learning algorithm to applications where they’re 95% or more certain that it will be better and more accurate than a human. Benton believes that starting with high confidence applications helps organizations notch some significant wins right off the bat, and improves their overall confidence in the process. Users can then work their way down, iteratively, until reaching areas where the confidence thresholds are 50-60% and they’re “flipping a coin.”

A second area of emphasis is on the impact of these projects. Once these are established, Benton stresses the importance of ease of deployment – encouraging users to focus on the high-impact applications that would be the easiest to deploy.

Benton says manufacturing companies should prioritize incremental wins, with the goal of netting smaller benefits quickly – within 1-2 quarters – in order to build confidence, and funding, to be put toward longer-term projects.

A Spotlight on AI-Powered Replenishment

Manufacturing industry tasks can be more complex than they appear at face value. When it comes to replenishment, companies are often making decisions based on average demand. Unfortunately, anyone who’s worked in this capacity knows that averages are imperfect



at best. It’s not uncommon for promotions or shortages to cause spikes in orders or lead times to drag well past their estimates.

The result is a scenario that relies heavily on manual recalculation, reconciling spreadsheets and adjusting to shifts in working capital – conditions that are never exactly predictable or repeatable.

To target this challenge, GAINS’ AI decision layer helps continuously evaluate variables like demand signals, lead time variability, and supplier reliability – even working capital constraints.

And instead of the same rules being applied to every SKU, the AI-enabled system is able to incorporate context-inspired recommendations based on real-world conditions. In many businesses, for example, up to 80% of purchase orders require no manual touches whatsoever. According to GAINS, the impact of this provides quick ROI – with buyer workloads cut by 80% as purchase orders and approvals can be automated.



This means buyers and planners can spend less time “chasing exceptions” and more time adding value in scenarios that truly require human judgement to be successful.

They’re not stuck gathering data or reconciling spreadsheets. They’re “evaluating decisions, setting policy, and guiding strategy — exactly where human expertise matters most.”

Long Term Planning Gets a Boost

The same applies to longer term planning, a place where GAINS see many [practical applications](#) for AI. Annual planning often serves as a significant challenge for manufacturers due to persistent swings in supply and demand. Compounding this is a business environment that’s rife with fluctuation, including tariffs, inflation and consumer trends impacting what they need and when they can get it. Thus, applying a static plan in a variable environment often leaves companies frustrated as they are forced to continually revise an outdated goal.

AI, says GAINS, can remove this burden and transform a static plan into a “sequential” one that evolves by “adjusting forecasts, orders and budgets while still staying grounded in long-term goals.” From a practical perspective, this could take the form of an AI agent flagging areas where existing objectives or assumptions are no longer relevant. It can show how prospective changes would trickle down through the operating environment, and provide recommendations for updates.

Practical Benefits Through Measured Implementation

Many businesses are looking at the low hanging fruit when it comes to AI, but GAINS is also encouraging its customers to dig a little deeper and uncover areas that offer more meaningful impact.



The first step is, of course, deciding to make a change. Businesses who choose to leverage the wide array of agentic AI tools available to them are taking a critical first step in identifying opportunities for solutions that are more accurate and less labor intensive.

What’s needed next, ultimately, is a strategy: how can your team target these applications in a low-risk, high-return manner? According to Benton, businesses must stop shooting from the hip and apply a methodical approach: “How can you measure the value-add of the AI method and adopt that in a very controlled and phased fashion? How can you make yourself more resilient?”

“We’re only going to apply it when we’re really confident it’s better.”

And when it is better, of course, the results are your proof. GAINS experience shows that working on one KPI at a time can create a cascading effect that brings balance to your business operations. By keeping humans in the loop while leveraging AI to reduce chaos and improve decision-making, manufacturers can address core objectives and achieve real results.

Results That Speak Volumes

