Smart Industry
EHANDBOOK

The Smart Industry 2023 Crystal Ball Report

The digitalization of industry is rapidly evolving. That’s a good thing, but it makes predicting future trends particularly tricky and particularly important, because “the future” can come as quickly as “tomorrow.”

Here in our annual Crystal Ball Report, we gather predictions from dozens of industry thought-leaders on the immediate future of manufacturing.

respond to disruptions in 2023 to stay competitive. SAP, for example, leads with their approach to intelligent spend management. The concept they use is based on collaboration with your trading partners, which gives tremendous visibility into your extended network. It's ideal for looking into your supply chain, and giving you the ability to respond quickly to issues like changing customer demands or market disruptions. It's also an end-to-end approach so it can have an impact across the enterprise from forecasting to production to operations. In this competitive industry, gaining transparency will enable you to stay resilient. This is exactly the solution to overcoming the challenges that 2023 will bring.

OPPORTUNITIES FOR AGILE VISIONARIES

2023 will be a challenging year but there are opportunities for leaders with a clear vision for the future and strategy for agility. The C-suite will need to focus on both long-term planning and short term wins. They will need to be smart with their investments and select solutions that will bring efficiency and cost savings like cloud adoption or standardized software. A data-management strategy should be established that looks out to the next few years and aims to optimize the data's value. The executives that set forth with strong strategic plans in 2023 will also set themselves up for growth in 2024, 2025, and beyond. ◻

Finances and transformation

By Dr. Paul Turner, COO, Raven

◻ As manufacturers start to take stock of the macroeconomic headwinds facing them in 2023, questions around prioritizing digital-transformation investments are being raised. As energy prices rise and consumer demand declines due to increasing cost of living and interest rates, aggressive cost cutting is right back on top of the business agenda. This has the potential to seriously impact spend on Industry 4.0 both from an infrastructure and technology perspective.

The high failure rate of Industry 4.0 projects to date, the often eye-watering costs of building comprehensive data infrastructures and the pilot purgatory experienced by manufacturers trying to figure out which Industry 4.0 technologies will deliver maximum ROI in the shortest amount of time will also incentivize teams to hold out on further investments until the headwinds subside.

But what if the headwinds don't? What if it's the new normal?

Many of the innovative Industry 4.0 technologies are developed and owned by tech start-ups and scale-ups that have historically enjoyed a venture-capital market supporting "hire and spend to scale" strategies strengthened by impressive valuation to ARR ratios. This is no longer an accurate representation of the financing markets. In anticipation of a global recession, venture-capital markets are no longer chasing growth to secure blooming opportunities but are taking a more conservative approach. We're entering a "survival of the fittest" economy and financing strategies will adapt to take advantage.

So, what does this mean for both manufacturers and the companies serving them in the next year? Firstly, it means that manufacturers will want to sweat their existing assets, reduce costs, consolidate production, and maximize productivity—all within budget constraints. This means expenditure will be focused more on short-term investment gains with rapid impact and payback. High-risk analytics projects involving armies of data scientists generating actionable insights and failing to deliver value on the shop floor will be put on hold if not shut down altogether. For smart manufacturing in 2023 and beyond, the top-down approach will need to embrace the bottom-up approach or step to the side. Frontline engagement is key to delivering tangible gains quickly. It doesn't matter how smart the technology is, if the operations teams don't use or act on it, then the digital solution is identical to shelfware.

In the new year, manufacturing tech companies also need to understand that they're operating in a "survival of the fittest" environment. This doesn't mean the biggest and strongest survive. This means that those able to adapt will. Requests for proposals inviting four or five vendors to pitch against each other for massive digital transformation projects will be rare. The failure rate, expense and risk of these "one-size-fits-all" deployments are too high for the climate we'll face in 2023. Instead, the industry itself needs to collaborate as a best-of-breed ecosystem with modular components that seamlessly work with each other towards a common goal of delivering maximum ROI to manufacturers as rapidly as possible. Competition will need to segue to coopetition with an understanding of who plays where and to what strengths. The tech partners that adapt to this new environment will survive and those that don't will struggle to compete against it.

There are huge opportunities for manufacturers and technology partners that adapt to the 2023 conditions. A best-of-breed ecosystem that plays to the individual strengths of each player will be far more effective at delivering overall value than a sub-optimal end-to-end solution that doesn't. The main challenge facing a best-of-breed ecosystem is that manufacturers don't want to be dealing with various independent companies. The key to success here will be balancing extra costs with efficiencies of scale, and the added value of a best-of-breed modular architecture.

By adopting a best-of-breed ecosystem, manufacturers can crack the code of driving standardization at scale while simultaneously providing flexibility and customization to the individual client needs and wants. Industry 4.0 history has shown that vendors focused solely on standardization get frontline rejection because of the "one-size-fits-all" myth. But those that focus too much on flexibility and customization create a collection of unsupportable features. In the best-of-breed ecosystem, the sweet spot is baseline and scalable standardization plugged into technology that specialize in local customizations.

In 2023, manufacturers who 1) adapt to the "survival of the fittest" environment, 2) spend smart on I4.0 technologies with fast ROI and, 3) collaborate with tech partners in a best-of-breed ecosystem will stay on top and prosper. ◻

The future of predictive asset-performance management

By Ilangovan R, Honeywell director of product management and Rahul Chillar, Honeywell chief product officer

◻ Within the next five to ten years, the predictive component of asset-performance management (APM) is poised for transformative disruption. Strategies to close gaps and build an enduring, world-class solution will resolve the predictive side of APM and link with the maintenance side.