



Beyond Equipment Automation: The Case for Digital Transformation



HIGHLIGHTS FROM A VIRTUAL ROUNDTABLE

2023

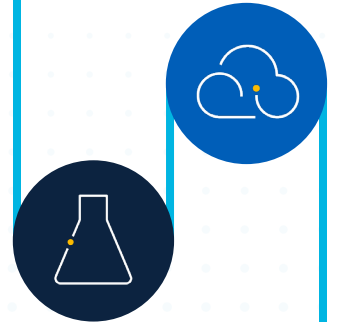
Executive Summary

On February 23, 2023, GE Digital and the FSO Institute conducted a roundtable on the case for digital transformation that moves beyond equipment automation.

For this discussion, digital transformation focused on four steps:

- Defining digital transformation
- Identifying critical success factors during project implementation
- Understanding key benchmarks along the project journey
- Identifying solutions and defining successful outcomes

A working definition for digital transformation states it is the evolutionary process of integrating digital technologies and solutions across the people, process, and technology within an organization to make the business smarter, more flexible, and more profitable. Overall, the roundtable sought to define and discuss the process of digital transformation both inside and outside of the manufacturing community. The discussion reviewed lessons learned, pitfalls to avoid and how manufacturers can better set themselves up for digital transformation success.



Disclaimer

The participation of the industry panelists in this roundtable is for educational purposes only and does not represent an endorsement of GE Digital, its products, or any other platforms and resources used by the panelists in their digital journey.



Highlights and key takeaways from the roundtable include:

- From a C-suite perspective, the conversation is focused on increased profits, return on investment, cost savings, tracking manufacturing changes and efficiency, and how all these factors fit into the corporate strategic plan.
- From a manufacturing plant or operational perspective, the emphasis is on the discovery and feasibility processes and includes the business case for project success, cost estimation, determining benefits, value to stakeholders; and obtaining C-suite support.
- From a maintenance perspective, digital transformation extends asset life and allows a plant or organization to move into predictive data analytics for machine or part failures.
- From an IT perspective, understanding what the engineering team wants, properly supporting the project and its budget, agreeing how the project will be set up/installed, and how data is tracked and reported are all paramount to success.
- Today's data-driven organizations look at real-time data from the shop floor or other internal systems and contextualize the information back into an MES, so plants can make business decisions in real time.
- Software systems are not a magic wand. Stakeholders must review and interpret the data, know their shop floor, and take action on the data received.



How Digital Transformation Brings Value to Organizations

In its “2022 Global Food and Beverage Industry Trends” report, International Data Corp. (IDC) revealed that companies adopting digital transformation into their operations have seen a measurable increase in productivity and profits. About three-quarters of the survey respondents have seen key performance improvements across all areas of the business (production, quality, supply chain, logistics, sales, e-commerce) as a result of their digital transformation initiatives, and an additional 45 to 55% expect to see even more improvements over the next 12 months. Companies investing early in digital transformation are now reaping the benefits, IDC concludes, and those still sitting on the fence are at a potential disadvantage.

Invest early in digital transformation and reap the benefits. Those still sitting on the fence are at a potential disadvantage.



Many food and beverage manufacturers struggle with implementing digital transformation projects because they do not have knowledge of how the process will work. According to the FSO Institute, simplicity is key when implementing a digital transformation project. It does not have to be complicated or expensive, but it must bring value to the organization to be successful.

Basic elements of a successful digital transformation projects begin with strategy and leadership. This requires communication with stakeholders and a team-structured process. The organization is about to embark on a culture change that will alter its way of working. This process will change how a company operates and delivers value and will challenge the status quo.

There are basic steps to implementing a successful digital transformation process, starting with the discovery phase. Organizations must first understand how digital transformation can help meet organization objectives and where it resides relative to performance. Calculating overall equipment effectiveness (OEE) is a good starting point. Once you have determined the best potential opportunity to implement your digital transformation, you should focus on a feasibility study that shows cost and value the project will bring to your organization.

Most importantly, senior leadership must not only understand the value the process will bring to the organization but also be a strong advocate and/or sponsor of the transformation.

SOURCES:

¹ IDC White Paper: Global Food and Beverage Industry Trends and Strategic Insights, 2022
² FSO Institute and ProFood World, “Beyond Equipment Automation: The Case for Digital Transformation” December 2022



The Foundations of a Successful Digital Transformation Project

From a manufacturing perspective, the first step in a digital transformation project is **discovery** and **feasibility**. The team must develop a project scope and estimate the financial cost and the benefits that digital transformation is going to potentially bring. It must also obtain buy-in from all stakeholders as well as support from the C-suite.

After discovery and feasibility, the next stage is **strategic development**. It is crucial to identify the people this process will affect and to whom it will add value. Because there will be challenges and hurdles, a steering committee should make decisions and oversee project direction.

After strategic development, the next step is **proof of concept** and **repeatability**. It is advisable to begin with something relatively easy to execute. While following project scope and recording timeline and milestones, success boils down to key performance indicators (KPIs). In other words, initiate, prioritize, plan, collaborate, execute, and then monitor the KPIs that you have developed.

Because the digital transformation process extends asset life, predictive analysis will be available on sensors for monitoring temperatures, for example, and alerting you when they need to be changed. These cost savings alone can be tremendous.

Obtaining initial buy-in from plant-floor workers is essential. Helping them understand the benefits of the digital transformation will pay dividends. If staff is not leveraging the data, the organization will not gain value from the digital transformation project. If you can show workers results in real-time, intangible productivity can be gained. You need to only get data to your C-level managers and your day-to-day operators.

New workers must be brought up to speed on the new system's capabilities and limitations to overcome existing hurdles such as 'we've always done it this way.' If you don't change how the work is done, you won't get the benefits of the digital transformation. This is where culture change as a part of the digital transformation will become crucial.

It may be useful to create a cross-functional digital transformation team that has a combination of technology and business skills.





Critical Success Factors

Historically, manufacturing operations drive OEE on the shop floor, so it is imperative to understand what success looks like. It should be part of your scope. Through stakeholder and steering committee meetings, define what success looks like for the project. Milestones are critical, and ultimately the C-Suite doesn't care about the tool if you are improving the bottom line.

In most organizations, there's a distinct division between IT and OT, but success with a digital transformation tool doesn't always mean IT must be involved. The tool can reside at an OT level and provide the value and success that's needed at the shop floor.

In other organizations, IT and OT organizations work more closely. Some CPGs think OT can't solely work on in a digital transformation project, such as where a SCADA system ties into an ERP and information must be reported to the C-suite. Collaboration between OT and IT can provide a clear picture of project success. On a more granular level, you need to identify exactly which KPIs you need or OEE you are trying to achieve. You need to set up the purpose for that data properly because if you don't know the real purpose of the data, your project may fail.

Sometimes what you expect to get from a benefit doesn't happen. Determine what else you can do to achieve the same objective. Failing fast and being able to really pivot is an important part of project success.

Checklist for a successful outcome:

- Are you on track on the scope and the modules implementation?
- After inputting downtime tracking tools, and measuring frequency and mean time between failures, are you running more cases or loading more trucks?
- Did you achieve or exceed the cost savings in the time that you were expected to do so?
- Are you on track timeline wise and saving wise?
- Are you managing C-suite perceptions and expectations?





The Digital Transformation Journey

The way organizations define success has changed since the pandemic. In the past, organizations could wait up to a year to see a return on investment. Today, C-suite executives want to see results within one to three months, so it is crucial to consider concentrating on short-term operational gains during your digital transformation journey. The following are the key steps for a successful journey:

1. Discovery and feasibility

Develop a roadmap of where you want to go and identify what you want to achieve. Then get your KPIs in place. Is your project feasible to be successful?

2. Scope

The project is not just driven by an engineering or operational initiative. It's a collaborative process. It should be a group effort with IT, OT, and the plant floor staff it will impact.

3. Connect with vendors

After assembling your digital transformation team members, start connecting with the external vendors. Oftentimes, operations may prefer a different vendor than IT. Once you've agreed on a vendor, develop a project plan, and move to implementation. During implementation, measure changes, record improvements, and communicate it to stakeholders.

4. Obtain senior leadership support

Once you have support from a senior leader or the C-suite and your KPIs in place, your project can succeed. Allow the process to be interactive and let people driving the success see the value it is bringing to the shop floor.

5. Develop outcome maps

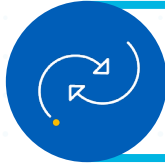
The journey can be very tactical and developing outcome maps can be helpful. They will help you determine what you are trying to achieve and determine any barriers to success. For example, what are the steps I must take this week, this month, this year in order to achieve a 3 to 5% increase in gross margin?

6. Minimize scope creep

Hit your budget and keep to the schedule. While labor and training continue to plague many CPGs, be sure to get training programs for your OEMs.

Initially define project goals, success factors, and timelines. Then get buy-in from different departments heads such as your CTO, CFO, and CEO.





Solutions and Results

You can have all the KPIs and dashboards in the world, but project perception within your organization can make it or break it. Apart from the financials or hard data, ask yourself if the project is making people's lives easier outside of your department, for example, in sales, marketing, accounting? These often get overlooked, but in reality, that is how it is perceived.

Asset extension is critical. Are you getting more accomplished in the same amount of hours? Can you reduce the amount of man hours utilized to successfully support your assets? If you have an asset that has been amortized for seven years, can you push it to 10 years?

Success is not about the technology, it's about what that technology can bring to you. It can be simple as creating a real-time dashboard that gets data to the shop floor. People want to be successful, and if they can see their results in real time, they will drive that success.

Adopting a modern approach

Business cycles are expected to become even faster in the future. Would your current technology meet your needs five to ten years from now? Sometimes the C-suite doesn't want to know what is happening on the plant floor, but it definitely wants to know when it is going to improve profitability now and in the future.

Digital transformation has two sides to it. One is technology and how to adopt it. The other is people—how we can change mindset, how we can be more agile, and how we can achieve continuous learning and development. Combining the two sides ensures success for everyone.

Initially define project goals, success factors, and timelines. Then get buy-in from different departments heads such as your CTO, CFO, and CEO.



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