

## WHAT MAKES SYSPRO DIFFERENT?

### SINGULAR FOCUS, TECHNOLOGY THAT “KEEPS UP”

#### Who is SYSPRO?

*For the past 40 years SYSPRO has focused on bringing software solutions to mid-market/larger manufacturers and distributors. It is one of a very few remaining ERP vendors that develops and supports a single ERP solution.*

*SYSPRO focuses on the following industries in manufacturing and distribution:*

- ✓ *Food and beverage*
- ✓ *Electronics*
- ✓ *Industrial machinery and equipment*
- ✓ *Fabricated metal*
- ✓ *Packaging*
- ✓ *Plastics and rubber*
- ✓ *Automotive parts and accessories*

*Over the years SYSPRO has made a name for itself and won numerous awards for its focus on its customers and for delivering pragmatic solutions designed to meet the real needs of real customers.*

*Today SYSPRO supports over 15,000 customers, supported by 1,600 partner resources, in 62 countries.*

*Over the years, SYSPRO has developed a reputation as a software vendor that keeps up with modern technology. SYSPRO’s Enterprise Resource Planning (ERP) has been on the market for 40 years. But unlike other solution providers that are still stuck on old technology, SYSPRO has continued to invest in and evolve its underlying architecture. Known for its pragmatic vision, SYSPRO prides itself on delivering real, practical applications. This, and SYSPRO’s laser-like focus on delivering features and functions that real customers want, has given SYSPRO its impressive staying power in the industry.*

*In this report, we take a look at some of the ways SYSPRO continues to differentiate itself in this very mature market, starting with a topic that is hyped more than it is executed.*

### MAKING DIGITAL TRANSFORMATION REAL

In spite of all the hype around digital technologies we see limited progress being made in terms of real digital transformation in the world of manufacturing. Many technology and solution providers that target this sector announce their intentions with great fanfare, then proceed to proto-type solutions and conduct pilot projects. Some get delivered; others never make it out of the lab. Even those that do make it just take baby steps that automate simple tasks in the back office or make one-off connections to devices on the shop floor. They don’t move the needle in any real, practical sense for the average manufacturer.

As a result, few manufacturers fully grasp the potential impact these digital technologies can have on their active participation in the next manufacturing revolution, or what is commonly referred to as [Industry 4.0](#). Mint Jutras research finds only an average 8% of manufacturers surveyed have invested in any one of the different digital technologies that fuel this revolution, and more than half (54%) have no active plans to do so. Many of course are still running legacy solutions, which makes it hard, if not impossible to participate. And they are so embroiled in dealing with day-to-day challenges, some of which are caused by those same solutions, that they fail to recognize the potential. And even if they do, they don’t have the budget or the expertise to move that needle on their own. They need a solution provider that keeps abreast of modern architectures and technologies, one that will deliver real, practical solutions, right out of the box. This is the SYSPRO approach.

## Data Source

*In this report Mint Jutras references data from its 2018 Enterprise Solution Study. This year's study focused on business growth and the role new (digital) technologies play, along with enterprise applications, in enabling (or inhibiting) growth and performance.*

*The 2018 study collected responses from over 460 participants from companies of all sizes from very small to very large, representing a wide range of industries. For this report we selected responses from the 273 participating manufacturers.*

SYSPRO has been delivering on [the practical side of digital technologies](#) for a couple of years now. This latest release, which SYSPRO has labelled its “Digital Transformation Release,” is marked by an infusion of artificial intelligence (AI) and the Internet of Things (IoT), delivered on top of a Social ERP platform and a rich user interface, which lays the foundation for the introduction of “digital citizens” (bots).

### **THE KEY: EMBEDDING DIGITAL TECHNOLOGIES**

Does the launch of a Digital Transformation Release, coupled with an apparent lack of interest in digital technologies, violate SYSPRO’s historically pragmatic approach to innovation? We think not. We believe these digital technologies are destined to be absorbed into the enterprise in general, and manufacturing in particular, in much the same way as technologies like artificial intelligence (AI) and natural language processing (NLP) have insinuated themselves into our personal lives.

Think about it. As consumers, we didn’t loudly voice our desire for AI or NLP. But that didn’t stop Apple from delivering Siri on an iPhone. Pretty soon Microsoft delivered Cortana on Windows 10; Google delivered Google Now; Amazon delivered Alexa and now Bixby is on your (newer) Samsung Galaxy. None of these technology giants initially charged for it; it just came as a useful tool embedded on your device. Note the three keys to success here. In each case:

- It was included/embedded (not “extra”) - direct purchase of Amazon Echo Dot and Google Home devices came later
- It was useful - maybe not for everyone, but for a good percentage
- It was pushed to (not pulled by) the consumer – until it gained traction

Even today as the millennial generation is completely hooked on this technology (with Gen Xers not too far behind and Baby Boomers grudgingly succumbing to the pull), many still don’t even associate these virtual assistants with either AI or NLP. They don’t realize voice recognition and automated voice responses are a form of AI. This is partly because these assistants aren’t really all that smart. Beyond sending reminders and answering relatively simple questions, they can’t, for example, answer a question nobody ever thought of before. In many ways they are little more than sophisticated search engines. And yet, even with limited capabilities they have become mainstream. Keep that in mind as we look at current investments and plans for digital technologies for the enterprise.

Our 2018 Mint Jutras Enterprise Solution study broke out some of these digital technologies in two different categories. The first category, those shown in Table 1, are most likely to be viewed as technologies you would (separately) evaluate and purchase/deploy. We include virtual assistants (think Siri for the enterprise) even though this technology was first introduced as an embedded feature of iOS devices. Later this type of tool came to stand on its own in the form of a stand-alone device.

**Table 1: Digital Technologies Plans and Investments in Manufacturing**

	Invested	Actively considering	Planning to invest in 1 year	Planning to invest long term	No plans/ no activity
Blockchain (distributed ledgers)	4%	9%	5%	15%	67%
Smart Robots	10%	20%	8%	15%	47%
Virtual assistants (chatbots)	4%	14%	5%	13%	63%
RFID	10%	24%	7%	17%	43%
Internet of Things	16%	23%	5%	25%	32%
Digital Twins	6%	11%	4%	10%	69%
Beacons	5%	12%	7%	10%	65%
Drones	4%	9%	6%	13%	68%
Driverless vehicles	5%	9%	5%	14%	66%
3D printing	20%	21%	8%	13%	38%
Predictive analytics	10%	26%	6%	18%	39%
Cognitive analytics	8%	20%	9%	14%	49%
Augmented reality	6%	12%	7%	13%	62%
Wearable devices	9%	17%	6%	18%	50%

Source: 2018 Mint Jutras Enterprise Solution Study

*When digital technologies are purchased separately it is often a daunting task to connect back to ERP and in turn, the business itself. But without this connection, factories don't get any smarter and neither do the leaders making business decisions.*

While all of these are separate technologies, in order for them to be truly transformative, they must interoperate and/or integrate with the enterprise applications like ERP in the front and back office – the kind of business solutions that SYSPRO offers. When purchased separately it is often a daunting task to connect back to ERP and in turn, the business itself. But without this connection, factories don't get any smarter and neither do the leaders making business decisions. And that's the real goal of digital transformation in manufacturing: a smart factory and smarter business decisions. And therefore it makes perfect (and practical) sense for SYSPRO to add these capabilities, ensuring seamless integration.

As you can see, many manufacturers have no plans to invest in these technologies. Yet we believe they will gladly use them if SYSPRO delivers them within its planned releases. In fact, they might come to wonder how they ever made do without them.

**SYSPRO IOT**

*At the heart of SYSPRO's latest release is SYSPRO IoT, providing automation and data exchange capabilities in a secure environment, including cyber and physical security, which it leverages from the Microsoft Azure IoT Hub.*

At the heart of SYSPRO's latest release is SYSPRO IoT, providing automation and data exchange capabilities in a secure environment, including cyber and physical security, which it leverages from the Microsoft Azure IoT Hub. IoT has the lowest percentage of manufacturers with no plans and no activity and close to the highest percentage of those that have already made some investment (second only to 3D printing). Indeed manufacturers have been collecting vast volumes of data from sensors on the shop floor for decades. And yet that data has gone largely underutilized because manufacturers fail to connect the data back to the enterprise applications, and the business decisions.



*Unlike tool kits sold separately, SYSPRO IoT facilitates connections to the most common sensors and equipment in the field today, right out of the box.*

Unlike tool kits sold separately, SYSPRO IoT facilitates these connections right out of the box. SYSPRO looked for the most common sensors and equipment in the field today and includes native drivers for plug-and-play connectivity to those machines and devices. It can then combine machine data with job and stock code data to provide insights about cost, quality and productivity – also out of the box. Machine-based alerts, added control and automated actions can result in error reductions and avoidance of scrap. SYSPRO expects customers to see specific improvement in:

- Overall Equipment Effectiveness (OEE)
- Visibility to exact status of equipment and jobs in real time
- Job costing accuracy
- Loss visualization and continuous improvement

SYSPRO has already begun building applications that extend its current ERP solution. One such example: a refrigerator application. One of its customers is in the business of servicing large, commercial refrigeration units. Remote monitoring would help the company provide more responsive service and reduce downtime (and potential loss from spoiled food). But in order to do this, these refrigerators need to get smart. Instead of replacing or retrofitting existing installed units, SYSPRO's customer decided to place a smart monitor in each unit. SYSPRO then built an application that collects data directly from the inserted device, in order to monitor key performance indicators in real time, adding a level of analysis to help anticipate failures.

While this sounds quite custom, think about the potential application to any kind of environment that needs to be temperature control. And because the monitoring device can be placed in any kind of unit or device, all of a sudden the niche doesn't seem so small. This is just one example of the kinds of very practical benefits derived in combining IoT and predictive analysis.

SYSPRO will use this connected data to feed analytics with cognitive computing capabilities. Much of the early value will come from alerting capabilities, but SYSPRO intends to deliver more predictive powers in a follow-on October 2018 release. While these are all out-of-the-box type of capabilities, SYSPRO realizes each manufacturer will have slightly different requirements and therefore parameters, alerts and analytics are all customizable without ever touching source code.

### **SYSPRO BOTS**

While our survey participants were more likely than not to be considering investment in IoT, the opposite is true of virtual assistants. A negligible percentage (4%) have actually invested in chat bots and much like the pre-Siri iPhone user, few seem to have any interest. Almost two thirds (63%) have no activity and no plans to pursue this technology. Yet, one might argue that even today iPhone users have not "invested" in the technology, but we would venture to guess that a very large percentage make use of it. SYSPRO is

*You initiate a conversation with the SYSPRO chat bot by saying, "Hey chat bot." It is actually a self-service agent running in the background..*

anticipating the same trend in the enterprise and therefore getting out ahead of it.

SYSPRO BOTs were first introduced in 2016. You initiate a conversation with the SYSPRO chat bot by saying, "Hey chat bot." It is actually a self-service agent running in the background. Today it has limited capabilities. Much like Siri, it cannot answer questions for which it has not been pre-programmed. However, SYSPRO is working on a future release that will introduce "digital citizens" that will operate in conjunction with artificial intelligence (AI) and can be deployed to handle repetitive tasks within the enterprise and across the supply chain. Unlike some other vendors' chat bots that come with a price tag, these "bots" will be embedded within business processes modeled in SYSPRO ERP and can be trained on the skills needed to perform certain functions. These will be made available directly through the SYSPRO user interface (UI) or other platforms such as social media, websites or other chat programs used by both internal and external stakeholders. This obviously requires support from the underlying architecture.

## ARCHITECTURE AND DEEPLY EMBEDDED TECHNOLOGY

This brings us to the "other" category of technologies to which we previously alluded. IoT, virtual assistants and the other tools and technologies listed in Table 1 are relatively independent of solutions like ERP, even though they should be connected in order to derive the most benefit. Other technologies are more architectural and therefore are (or should be) more deeply embedded within the applications.

*Digital technologies require some supportive architecture. This is why it is so difficult, if not impossible to execute a digital transformation using solutions built on older, outdated technology.*

There is some natural overlap between the technologies listed in Tables 1 and 2, particularly when those in Table 1 require some supportive architecture. This is why it is so difficult, if not impossible to execute a digital transformation using solutions built on older, outdated technology. And the prevalence of legacy solutions in the field today explains, at least partially, why (with the exception of moving to the cloud) we see similar lack of activity associated with these technologies (Table 2).

For these other types of technologies, we included an additional option in our investigation of investment and plans: *We expect vendors to deliver at no additional charge.* It would appear that only a small percentage of our survey respondents expect these technologies to be included with their on-going maintenance or subscriptions. While SYSPRO has not promised all of these technologies will be included at no charge, some will and therefore it is positioning itself ahead of expectations, as well as ahead of much of its competition – always a good thing.

So, how is SYSPRO delivering these different embedded technologies? Let's take a look at a few.

**Table 2: Manufacturers' Expectations for Embedded Digital Technologies**

	Invested	Actively considering	Expect vendors to deliver at N/C	Planning to invest in 1 year	Planning to invest long term	No plans/ no activity
Microservices architectures / platforms	8%	13%	10%	2%	7%	60%
Move to cloud/SaaS	40%	16%	12%	5%	10%	17%
IoT technologies that facilitate autonomous exchange of data	12%	17%	14%	4%	14%	39%
Support for big data (e.g. in-memory data bases)	12%	20%	10%	4%	12%	41%
Natural Language Processing (voice-based) user interface	5%	14%	7%	4%	9%	61%
Social collaboration tools	12%	16%	10%	4%	8%	50%
Location-based tracking (GPS)	8%	10%	9%	4%	10%	58%
Machine Learning	5%	16%	13%	5%	14%	48%
Artificial Intelligence	4%	16%	11%	4%	10%	55%

Source: 2018 Mint Jutras Enterprise Solution Study

**Run SYSPRO Your Way**

**Choose How to Deploy:**

- ✓ Private Cloud
- ✓ On-premise

**Choose How to Pay:**

- ✓ Subscription (also available on-premise)
- ✓ Perpetual license

**Choose How to Engage:**

- ✓ Built for mobile (Espresso)
- ✓ Web-based interface (Avanti)
- ✓ Rich UI

**Choose how you benefit from connected services:**

- ✓ Azure IoT Hub
- ✓ Azure ML/AI
- ✓ Azure Bot

**CLOUD: SYSPRO DEPLOYMENT OPTIONS**

Of the technologies listed in Table 2, only one – the ability to move to the cloud – appears to be mainstream at this point in time. Forty percent (40%) of our study participants have invested in cloud/SaaS and a scant 17% have no cloud strategy. SYSPRO offers its solution with a choice of deployment options, including traditional on-premise or through a private cloud.

The partnership with Microsoft is not new, but once again, SYSPRO has hooked up with the software giant to bring several of the technologies listed in Table 2 to its customers. It does this through the Microsoft Azure Platform. Along with Azure come an IoT Hub and a platform for machine learning (ML) and AI. While Azure is a platform as a service (PaaS), SYSPRO's new web-based UI, IoT, ML, and AI are available even to customers that choose to deploy SYSPRO on premise.

Mint Jutras is a big fan of cloud computing in general and Software as a Service (SaaS) in particular, and our research shows most companies have defined a cloud strategy. But we also recognize the (many) companies currently running on premise will take different paths to destination cloud. While solutions offered exclusively as SaaS dictate that path, SYSPRO does not, and offers the flexibility of choice.

**SYSPRO'S AI TO UI BREAKTHROUGH**

Many of these technologies come together in what SYSPRO describes as its "AI to UI" breakthrough. SYSPRO will leverage the Microsoft Azure Platform to bring together potentially large volumes of structured and unstructured data and apply its inherent ML and AI capabilities. But this will be of limited value to business leaders unless they can make sense of it all. This requires analytical capabilities and effective visualization. And therefore we have two sides to this coin: the user interface (UI) and AI.

On the UI side, what is important to the consumer of ERP these days? Various characteristics are shown in Table 3, sequenced by those most likely to be

viewed as “Must Have!” Web-based access and access from a mobile device are clearly top of mind, followed by Google-like search capabilities.

**Table 3: Would these capabilities be useful?**

*“SYSPRO Avanti offers a user friendly, familiar experience. It is easy to find what I am looking for and getting to know the system took very little learning time.”*

Trevor Naicker, Zimco Group (Pty) LTD, a SYSPRO customer

	Must Have!	Very Important	Somewhat Important	Nice to Have	Wouldn't use even if available
Web-based access any time, from any where	43%	27%	13%	11%	5%
Access from a mobile device	33%	27%	20%	15%	5%
Google-like search through functions and actions	20%	33%	23%	20%	4%
Google-like search through enterprise data	18%	36%	26%	17%	4%
Natural language processing (like with Siri or Alexa)	4%	17%	20%	39%	21%

Source: 2018 Mint Jutras Enterprise Solution Study

Avanti is the name given SYSPRO’s latest web-based user interface. While customers can still use the rich client (Rich UI), and of course mobile access through Espresso, SYSPRO sees Avanti as its “go forward” UI. Developed with the help of a customer focus group, it is not packaged separately, but is simply delivered as part of the latest SYSPRO release. Developed with the millennial worker in mind, it also includes predictive search - predictive in that it anticipates what you are looking for as you type.

*“SYSPRO Avanti is a refreshing interface for an ERP system that improves the user experience to a new level, and in my opinion can be considered the standard for the 21<sup>st</sup> Century.”*

Gustav Schurmann, Core Group, a SYSPRO customer

While getting users to adopt (and adapt to) a new user interface is often the most difficult part of any new release, this is another way SYSPRO is different. SYSPRO is finding most customers are describing Avanti as quite user friendly and easy to learn and therefore many are willingly making the transition – and liking it.

And once there, users are discovering an added bonus - intelligence. The SYSPRO BOTS, with natural language processing and built in “skills” are embedded right in the UI. While all our research data, including that shown in Table 3, indicates NLP (a subcategory of AI) is still under-valued, we expect a rapid turn-around on this once users start to experience what SYSPRO BOTS can do. Imagine a BOT guiding you through taking an order, recognizing a repeat or standing order, anticipating items often purchased together, suggesting how to cross-sell and up-sell.

In addition, SYSPRO is also infusing intelligence into SYSPRO Harmony, its social ERP platform. Harmony was also introduced in 2016, uniting social media capabilities with collaboration, machine learning, cognitive services and data analytics. Harmony also delivers trends and anomaly detection, with automated notifications that can orchestrate workflows with little or no human intervention.

*In terms of Industry 4.0 and the new manufacturing revolution: Those still running legacy solutions are forcibly sidelined, because old, outdated technology makes it hard, if not impossible to participate.*

*Partnering with Microsoft makes economic sense. Think of the resources Microsoft can apply to ongoing development. That leaves SYSPRO developers to work on real-life customer problems.*

This type of analysis, including [regression analysis](#), which seeks out relationships between different variables, and predictive models are also being embedded in dashboards, bringing even more intelligence to the UI.

## CONCLUSION AND RECOMMENDATIONS

We are now in the midst of the next manufacturing revolution, or what many refer to as Industry 4.0. And yet we find many still sitting on the sidelines as this revolution spins around them. Few have invested in the different digital technologies that fuel this revolution, and more than half (54%) have no active plans to do so. Those still running legacy solutions are forcibly sidelined, because old, outdated technology makes it hard, if not impossible to participate. Many fail to recognize the potential benefits of these technologies. And even if they do, they don't have the budget or the expertise to move that needle on their own. They need a (new?) solution provider that keeps abreast of modern architectures and technologies, one that will deliver real, practical solutions, right out of the box.

In evaluating different alternatives, it is important to do your due diligence. On paper (i.e. a response to your request for proposal) many solutions appear to be similar. It is wise to look beyond the typical checklist of features and functions. Functionality is still important, but don't just ask if a feature is supported; demand to see it. Even better, put your own hands on the software and see if it is as easy to use as it looks. Those who do demos for a living can make anything look easy. Can you navigate with little or no guidance?

Also look at the underlying technology. If you don't have that kind of expertise on staff, seek the help of an independent consultant that can objectively evaluate and guide you. Platforms vary. SYSPRO does not develop the deployment platform; the cloud deployment platform Azure is maintained and developed by Microsoft, which provides both economic sense and scale. Think of the resources Microsoft can apply to ongoing development. That leaves SYSPRO developers to work on real-life customer problems.

Regardless of how you want to deploy the solution, look for its cloud capabilities. Can you access it from anywhere, any time? We are a mobile society working in a global, digital economy. Does it take full advantage of the devices you already use to stay connected? SYSPRO provides deployment "your way," including on your mobile device.

If you are not a SYSPRO customer and would relish the chance to get your hands on the technologies we describe here, and use them to address the challenges of Industry 4.0, we would encourage you to explore and investigate. We know change is hard, but if you continue to do what you've always done, you will continue to get what you've always gotten. Don't you want more?

You can't win with a vendor that will be challenged to support you. Look instead for a vendor like SYSPRO that will work with you in designing new and



improved solutions to old or new problems, making full use of disruptive emerging technologies where it makes sense to do so. This is essential in order to digitally transform your business.

Look for a vendor with a track record of delivering practical features that customers truly want. Figure out what you want... and go for it!

**About the author:** *Cindy Jutras is a widely recognized expert in analyzing the impact of enterprise applications on business performance. Utilizing over 40 years of corporate experience and specific expertise in manufacturing, supply chain, customer service and business performance management, Cindy has spent the past 12+ years benchmarking the performance of software solutions in the context of the business benefits of technology. In 2011 Cindy founded Mint Jutras ([www.mintjutras.com](http://www.mintjutras.com)), specializing in analyzing and communicating the business value enterprise applications bring to the enterprise.*