

NUCLEUS
RESEARCH

ERP TECHNOLOGY VALUE MATRIX 2018

ANALYST

Seth Lippincott

THE BOTTOM LINE

In the last year, the Enterprise Resource Planning (ERP) software market began to deliver on its promise to bring intelligence to back-office processes. Be it through machine learning (ML) to automate bank transaction reconciliations, or Internet of Things (IoT) connectivity facilitating preventative maintenance and new service-based business lines, ERP customers started to realize the benefits that Industry 4.0 capabilities can bring to manufacturing, distribution, and service organizations. Since the last ERP Value Matrix, Nucleus found that market-leading vendors are implementing technologies that are facilitated by the flexibility and scalability of cloud, which enables customers to reach higher levels of maturity along their digital transformation journeys.

MARKET OVERVIEW

Enterprise resource planning (ERP) software operates as a central system of record for many organizations, tying together data from sales, marketing, finance, planning, inventory, and human resources. ERP remains the lynchpin for many business processes, facilitating day-to-day operations and tracking enterprise critical data. The solutions delivered by ERP vendors today are often looking to provide the visibility and control to users that enables more efficient operations and better business decision-making. Regarding cloud adoption, many industry-verticals remain laggards, however, maintaining 100 percent uptime has usurped security as the primary concern which keeps customers on premises.

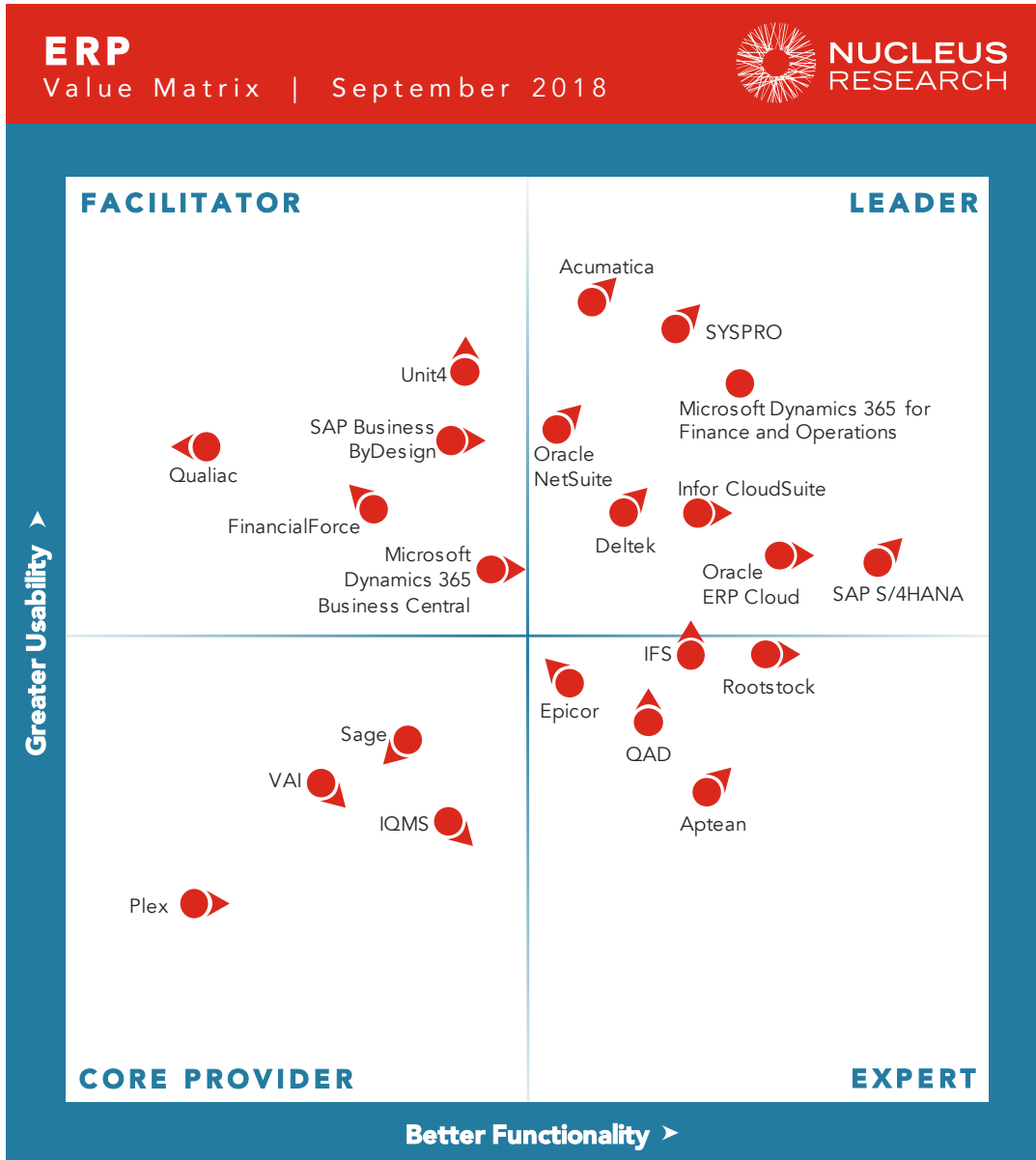
In this Value Matrix, Nucleus evaluates ERP market vendors based on their product usability and functionality and the value that customers realize from the capabilities of the product (Nucleus Research, *R59 – Understanding the Value Matrix*, April 2017). As a snapshot of the ERP landscape, this research is intended to help inform consumers about how well vendors are delivering value to customers, and what a prospect can expect moving forward based on the investments vendors are making today.

Since the last Value Matrix, the ERP market has made significant strides towards bringing intelligence to back-office processes. As their cloud offerings have matured, vendors have looked to bring functionality that takes advantage of the flexibility and scalability of cloud platforms. Vendors have made a steady stream of announcements and product releases around capabilities that will be delivered on their platforms and the extended services that these technologies will facilitate. As with all enterprise technologies, the maturation process for cloud platform services is still underway, however, there are early signs that vendors will be able to differentiate based on these services and deliver new value to customers.

Consolidations continued to be a theme in the market since the last Value Matrix. Although some bemoan that the consolidations leave fewer options for customers, the moves have helped bring clarity in some instances and expanded the reach of solutions into new geographies. For example, when Oracle bought NetSuite, there was skepticism about how the two companies would approach the market. To date, the acquisition has kept NetSuite from moving upmarket and Oracle from moving downmarket, with the solutions less likely to compete for the same account now than previously. As a result, customers are better able discern what solutions are the right fit for their businesses. Although the scalability of the cloud allows vendors serving small- and medium-sized businesses (SMBs) to meet the needs of large enterprises, the segmentation of the market is making it easier for customers looking for a new solution.

Building off the theme of last year's Value Matrix, verticalization and delivering more tailored functionality—especially when the solution is delivered in the cloud—remained at the center of the value proposition for many vendors (Nucleus Research, *R159 – ERP Technology Value Matrix 2017*, August 2017). Only a few vendors claim to have the functionality to service any business, and fewer still can deliver a solution platform flexible enough to enable customers and partners to build the capabilities needed in a cost-

effective manner. As a result, customers operating in niche micro-verticals should be better able to determine if a vendor can serve their needs based on the specific business processes that the ERP can address.



Whether the focus is Industry 4.0 or an automated close, vendors are investing in a suite of technologies such as Internet of Things (IoT), artificial intelligence (AI), machine learning (ML), natural language processing, and bots. Since the switching costs are particularly high for ERP systems, ensuring that a new deployment will service the needs of the customer well

into the future remains a vital consideration. Vendors are caught between addressing a customer's current business processes and demonstrating how they will continue to do so with their development roadmap as those businesses change. Nucleus has identified this dichotomy as the ERP Maturity Gap, which is characterized by the nature of the technology customers employ as they move from operational to optimal to intelligent business processes (Nucleus Research, *S73 – Bridging the ERP Maturity Gap*, April 2018). Although the number of concrete business cases for the technologies listed above is growing, the value delivered to the end customer is often still unrealized. Nucleus predicts that vendors, who can demonstrate the viability of their Industry 4.0 capabilities, will start to better differentiate themselves in the coming years.

LEADERS

Leaders in the Matrix include Acumatica, Deltek, Infor CloudSuite, Microsoft Dynamics 365 for Finance and Operations, Oracle ERP Cloud, Oracle NetSuite, SAP S/4HANA, and SYSPRO.

ACUMATICA

Acumatica is a Leader in the 2018 ERP Value Matrix. The vendor continues to lead the way in usability, serving several industry verticals, including commerce, manufacturing, and field service. Since that last Value Matrix, Acumatica has added a Construction Edition and Distribution Edition to its vertical offerings. With triple-digit growth, Acumatica has aggressively expanded its partner ecosystem to meet the needs of a diverse customer base, adding over 60 new value-added resellers (VARs) in the last year. As a born-in-the-cloud solution, Acumatica is delivered by subscription in the software-as-a-service (SaaS) model.

Having recently secured Series C funding to bolster its investments in technologies such as AI and ML, Acumatica has stressed that it is working on practical applications that deliver value to customers. High usability and flexibility are at the center of Acumatica's development philosophy and the vendor is looking to automate processes that it already delivers, such as with multi-entity accounting when making payments to multiple locations from a central location. In its second update in 2018, due for release in September, Acumatica is bringing a host of incremental improvements to each of its vertical solutions focused on increasing customer satisfaction. For example, with its Manufacturing Edition, the vendor is in the process of delivering project manufacturing on top of its project accounting capabilities and advanced planning and scheduling. Additionally, mobile applications will continue to be a core focus of the second release of 2018, following on from the mobile dashboard capabilities that were included in the R1 release earlier this year.

Predominately serving SMBs, Acumatica is continually looking for ways to improve its customers' user experience, often taking feedback directly from customers on what features

should be delivered. This is reflected in the vendor's approach to Industry 4.0 technologies, which centers on fitting the technology to the business case rather than the reverse. The focus on usability and customer value should continue to serve the vendor well in future editions of the Value Matrix.

DELTEK

Deltek is a Leader in the 2018 edition of the ERP Value Matrix, focusing squarely on project-centric businesses. The vendor delivers vertical solutions in several industries including architecture, engineering, and construction (AEC), marketing agencies, government contractors, management consulting, law firms, aerospace and defense, and non-profits. Since the last Value Matrix, Deltek has made three strategic acquisitions to extend its coverage in select verticals. First, Deltek acquired WorkBook to bolster its creative and marketing agency offerings (Nucleus Research, *S98 – WorkBook offers agency management visibility and insight*, June 2018). Second, to complement its GovWin product, Deltek purchased Oniva, which aggregates state, local, and education contracting opportunities. Lastly, Deltek acquired ConceptShare, which is a solution that caters to creative agencies by integrating online proofing with workflow automation.

In addition to the acquisitions, Deltek's development team has continued to produce a stream of improvements to its existing solutions. The vendor recently announced that its professional services solution will be renamed Vantagepoint upon its next release later this year. The solution is an end-to-end, project-centric ERP with vertical capabilities designed to support consulting and AEC industries throughout the entire project lifecycle. Deltek plans to continue increasing the global reach of the product with more localizations as well as integrating product information management capabilities.

On the innovation front, Deltek has invested in several technologies that customers are using today, including mobile functionality with Deltek Touch, integrated social capabilities that reduce the need for email, and data and key performance indicator (KPI) visualizations and dashboards that provide visibility across organizational silos. With over 60 percent of its customers in the cloud, Deltek has also invested heavily in ensuring a secure environment to meet the needs of government contractors that handle sensitive or classified information. Additionally, the vendor has begun investing in capabilities that will further ease of use and increase automation such as AI and ML, natural language processes, and wearable technologies. As the vendor consolidates its new acquisitions and continues to deliver increased visibility and control to project-centric businesses, its ability to demonstrate value and positioning in the Value Matrix should improve.

INFOR CLOUDSUITE

Infor continues as a Leader in the 2018 ERP Value Matrix, having made strides to integrate some of its recent acquisitions into a comprehensive cloud platform. Infor has maintained a vertical focus to its offerings, with its CloudSuite solutions covering a range of customer

sizes and a plethora of industries, including but not limited to: aerospace and defense, automotive, equipment, fashion, distribution, food and beverage, healthcare, industrial machinery, manufacturing, and public sector. Designed to fit the customer's deployment needs, Infor offers its products as SaaS, hybrid deployment, or on premises, with the ability to scale up to serve global enterprises operating on multi- or single-tenant instances.

After acquiring a leading analytics and business intelligence (BI) vendor in Birst, Infor is inserting the capabilities into its technology stack as a BI platform in order to remove many of the data siloes that enterprise customers have (Nucleus Research, *R76 – Infor acquires Birst to access full value of data*, August 2016). On top of Birst and its data repository, Infor delivers a suite of technologies as part of Infor OS, such as Infor Ming.le, Infor Data Lake, Infor IoT, and Infor Coleman. With Coleman, the vendor is pushing forward AI with its digital assistant technology, which was announced at Inforum 2017. Combining third-party and standard Infor data connections like its commerce network, GT Nexus, Infor delivers an end-to-end solution suite with the flexibility for extensibility to cover the last-mile functionality that customers require.

MICROSOFT DYNAMICS 365 FOR FINANCE AND OPERATIONS

Microsoft is a Leader in the 2018 ERP Value Matrix with its enterprise solution: Dynamics 365 for Finance and Operations. Continuing with its vision of unifying people, products and customers through digital feedback loops that are enabled by the technologies it is deploying, Microsoft is helping organizations along their digital transformation path. Dynamics 365 for Finance and Operations delivers capabilities around several pillars such as manufacturing, logistics and fulfillment, financial management, retail and commerce, planning, and product design.

In its Spring 2018 release, Microsoft provided improvements in analytics, data integration, extensibility and customization, supply chain optimization, and compliance. Microsoft's value proposition stems in part from the integrations it provides with other products in its ecosystem, including field service, project service automation, retail, sales, talent, and customer service. Underpinning and extending Microsoft's applications are capabilities such as Power BI, PowerApps, Common Data Service, and Microsoft Flow, which give users the tools to tailor their environment. With another release scheduled for October 2018, Microsoft gives its customers and partners a preview of what's to come and whether the capability will be delivered to cloud or on-premises deployments. Imbuing its applications with intelligent technologies such as AI has been a theme for Microsoft in recent releases, as the vendor seeks to improve efficiency and productivity by having the system make intelligent recommendations. As the vendor increases the number of use cases for these capabilities and their adoption becomes more widespread, its ability to deliver value that differentiates its products will improve.

ORACLE ERP CLOUD

Oracle is a Leader in the 2018 edition of the ERP Value Matrix, delivering an end-to-end enterprise cloud solution. With 140 modules in its suite, Oracle ERP Cloud addresses 23 industry verticals, including financial services, public sector, professional services, distribution, manufacturing, technology and communications, and higher education. Oracle also addresses all parts of the enterprise, covering financials, accounting, project financial management, revenue management, project management, procurement, analytics, supply chain, and risk management.

Delivering the entire cloud technology stack (i.e. infrastructure-as-a-service, platform-as-a-service, and software-as-a-service), Oracle has been busy rewriting many of its applications to be cloud-native. In addition, the vendor supports the functional needs of global enterprises, offering SaaS solutions for human capital management (HCM), enterprise performance management (EPM), customer experience, and supply chain management (SCM) on an integrated platform. While the focus of Oracle continues to be on its cloud applications, customers running on-premises environments of Oracle Peoplesoft, E-Business Suite, and JD Edwards can expect the status quo to be maintained.

Oracle has also been investing heavily in Industry 4.0 technologies such as blockchain, IoT, chatbots, and AI (Nucleus Research, *S38 – Oracle Modern Finance showcases future of ERP*, February 2018). With its AI capabilities, one of Oracle's goals is to develop adaptive intelligent applications that are purpose-built and deliver value out-of-the-box. The intelligent applications, which have reinforced learning algorithms tuned to specific tasks, are designed to increase the amount of automation and agility customers have with capabilities such as workflow automation, continuous financial close processing, and automated compliance. Rather than a large product release around AI and ML, Oracle is embedding the technology in its applications, making customer adoption easier and speeding the time to value. Additionally, Oracle is developing paths to the cloud for its customers. For example, the Oracle Soar program announced in June 2018 is designed to automate many of the steps typically required when migrating to the cloud for PeopleSoft, Hyperion, and E-Business Suite customers. As the vendor continues to help its customers speed the time to value when adopting its cloud solutions, its overall usability should improve.

ORACLE NETSUITE

Oracle NetSuite is a Leader in the 2018 edition of the ERP Value Matrix. With a focus on pushing its products globally since its acquisition by Oracle in July 2016, NetSuite delivers a host of vertical solutions covering industries such as advertising and marketing agencies, consulting, financial services, healthcare, distribution, logistics, retail, nonprofit, manufacturing, food and beverage, and education. Since the last Value Matrix, NetSuite has built upon its SuiteSuccess engagement model, debuting 14 new editions of the

program including for commerce, technology services, food and beverage manufacturing, advertising, media and publishing, consulting services, and manufacturing.

At its recent conference, SuiteWorld, NetSuite announced it had developed a new product that was designed to enable customers to deploy e-commerce capabilities within 30 days. The solution, called SuiteCommerce, gives customers the tools to launch and manage an e-commerce site without needing IT development resources. Another area of investment for NetSuite has been analytics and integrating business intelligence in its platform. Building on its existing BI tools, NetSuite is deploying capabilities that leverage AI and ML to deliver better insights to customers. As the vendor continues to make investments that facilitate customers moving to the cloud and shows that its innovations are delivering value, NetSuite's position in the Value Matrix will improve in the future.

SAP S/4HANA

SAP is a Leader in the 2018 ERP Value Matrix, having made strides to bring more of the capabilities that deliver intelligent ERP to SAP S/4HANA and S/4HANA Cloud. Continuing its cloud-first strategy, SAP is releasing quarterly updates to its S/4HANA Cloud products, while the on-premise version receives yearly major releases. With each update of its solution, SAP combines and prepackages more of the technologies enabled by SAP Leonardo, such as machine learning, conversational AI, and predictive analytics, with the 25 industry verticals SAP's ERP services.

In the latest release, the vendor already provides 33 scenarios out-of-the-box in total. Some noteworthy scenarios SAP added most recently include: ML-informed goods receipt/invoice receipt account reconciliation, where the system learns how to handle new business scenarios based on past decisions and provides recommendations to the user to significantly speed up and increase the accuracy of the monthly book closing process; project forecasting with ML analysis of historical project data as part of enterprise portfolio and project management to make predictions based on facts rather than individual judgments; and demand-driven replenishment with ML analysis of buffer levels and adjustments designed to improve inventory management by operating based on real demand and reducing safety stocks.

By bringing intelligence to its applications, SAP is looking to reduce or eliminate mundane, repetitive tasks. Instead of a technology looking for a problem, SAP is targeting use-cases where customers can realize value quickly. As a result, scenarios that leverage machine learning can be role-specific, which makes it simple for the user to take advantage of the technology. SAP is looking to demonstrate sufficient benefits to entice more customers to make the move to cloud, which will enable customers to more quickly consume the latest capabilities the SAP provides in its updates. As SAP expands the number of scenarios in which it is applying intelligence, it will continue to increase customer efficiency and the value S/4HANA Cloud delivers.

SYSPRO

SYSPRO remains a Leader in the 2018 ERP Value Matrix after investing in a new User Interface that will be generally available with SYSPRO's July 2018 release. With a strong focus on manufacturing and distribution, SYSPRO serves verticals such as automotive parts and accessories, electronics, food and beverage, industrial machinery and equipment, fabricated metals, packaging, and plastics and rubber. SYSPRO has over 15,000 customers and provides localization support across 62 countries. The vendor has moved steadily upmarket and is able to service tier-one enterprises as well as small- and medium-sized businesses.

As part of its latest release, SYSPRO focused on delivering flexibility to its customers. With the release of SYSPRO's new web-based user interface (UI), called Avanti, customers can access the software from any web-browser as well as leverage SYSPRO's customizable mobile application, Espresso. Additionally, customers have the choice to deploy on-premises or to a private cloud as well as the option of purchasing software through subscription or perpetual licenses.

SYSPRO is bringing extended services to its software with capabilities that enable customers to leverage Microsoft Azure IoT hub and Microsoft Azure ML/AI bot technology. SYSPRO's bot, which can be deployed to any messaging platform, comes with 60 skills available to users out of the box, such as adding calendar appointments and reading emails. The vendor is also introducing a new way to consume ERP with its Harmony interface, which delivers ERP information in a similar manner to that of a social media feed, providing data and key metrics to users.

SYSPRO continues to demonstrate its commitment to delivering value to its customers, focusing on practical applications of the latest enterprise technologies. As it moves upmarket, SYSPRO has ensured that its product is able to effectively scale, making its value proposition competitive in the verticals it serves.

EXPERTS

Experts in the Matrix include Aptean, Epicor, IFS, QAD, and Rootstock.

APTEAN

Aptean is an Expert in the 2018 ERP Value Matrix, focusing on manufacturing, distribution, and logistics, as well as delivering significant industry expertise with its solutions. Aptean's vertical solutions cover a plethora of industries including food and beverage, process manufacturing, chemical, pharmaceuticals, retail, wholesale distribution, automotive, metals, discrete manufacturing, electronics, and medical device manufacturing. Supporting mid-market customers across 74 countries, Aptean complements its ERP capabilities with

warehouse management systems (WMS), manufacturing execution systems (MES), and enterprise asset management (EAM) solutions.

Since the last Value Matrix, Aptean has made the strategic acquisition of IndustryBuilt, solidifying its position in food and beverage verticals. IndustryBuilt's core product, JustFood, is built on the Microsoft Dynamics 365 Business Central platform and is available on-premises and via the cloud, delivering end-to-end manufacturing, logistics, SCM, and warehousing functionality designed for the mid-market. The move by Aptean helps the vendor's coverage of some sub-verticals, complementing Aptean Ross ERP's functionality, and increases the portion of its solutions that are multi-tenant cloud enabled. As the vendor expands its cloud capabilities and realizes cross-selling opportunities between its solutions, the overall value it delivers to customers should continue to improve.

EPICOR

Epicor is an Expert in the 2018 edition of the ERP Value Matrix. The vendor delivers deep industry-specific functionality to a myriad of sub-verticals in retail, distribution, manufacturing, service industries, automotive, and lumber. Offering customers a full range of deployment options for its products (public or private cloud, hybrid cloud, and on premises), Epicor is expanding its partnership with Microsoft to deploy Epicor ERP products on Microsoft Azure cloud platform. As part of the vendor's strategy to accelerate cloud adoption amongst its customer base, Epicor is looking to leverage Microsoft's cloud technologies such as IoT, AI, and ML.

At its user conference earlier this year, Epicor outlined its vision for delivering Industry 4.0 capabilities, previewing, among other enhancements, a new user experience (UX) called Epicor Kinetic Design, which should start to be available with the vendor's next software release (Nucleus Research, *S87 – Epicor focuses on users at Insights 2018*, May 2018). Epicor also announced a new independent software vendor (ISV) program designed to make it easier for partners to develop, market, and support extensions, as well as leverage the new technologies Epicor is bringing to its platform. To further aid in its products' extensibility, Epicor is partnering an application programming interface (API) integration platform vendor, Jitterbit, making the integration of cloud or on-premises applications simpler.

Having articulated its vision and charted its plans to modernize its solution offerings, Epicor must now execute on those intentions to keep pace with the market and deliver value to its customers. Nucleus expects Epicor's new UX to be a significant value-driver as customer adoption begins and accelerates, thereby improving the vendor's positioning in future editions of the Value Matrix.

IFS

IFS is an Expert in the 2018 ERP Technology Value Matrix, delivering a new version of its ERP applications, IFS Applications 10, which includes a new UI called IFS Aurena. IFS also announced IFS Field Service Management 6, featuring a re-engineered user experience that is browser-based and has an improved scheduling engine. The vendor's capabilities are geared toward specific industries including automotive, aviation and defense, energy, high tech, engineering and infrastructure, oil and gas, industrial and process manufacturing, services, and retail.

With IFS Applications 10 and the Aurena interface, IFS features a bot that leverages AI to perform a suite of tasks using natural language processing. Users can access the bot from a host of messaging services such as Skype and Facebook Messenger. The latest edition of the software also includes capabilities to support service-centric organizations as well as demand-driven material requirements planning (DDMRP) that help companies reduce carried inventory and lead times. Additionally, IFS is looking to better support global customers with enhanced global tax management and multi-company capabilities.

IFS gives its customers choices in how they consume and deploy the software, offering cloud and on-premises models as well as subscription or perpetual license purchase options. Although IFS has a cloud-first strategy, many of its customers are opting for on-premises implementations. As the vendor works to consolidate the acquisitions it has made, particularly in field service management, customers should expect its solution suite to offer more cloud services and better value.

QAD

QAD is an Expert in the 2018 edition of the ERP Value Matrix having made significant strides in usability through its Channel Islands UX. QAD delivers ERP for manufacturing customers across six industry verticals: consumer products, automotive, food and beverage, industrial, high tech, and life sciences. Built for the cloud, the QAD Channel Islands UX is the culmination of a multi-year investment initiative to deliver a modern ERP on the QAD Enterprise Platform (Nucleus Research, *S91 – QAD highlights Channel Islands at Explore 2018*, May 2018).

Part of QAD's investment has focused on bringing technologies to its platform that will help customers digitize their operations and deploy capabilities such as IoT, blockchain, 3D printing, and AI. The vendor has begun delivering advanced technologies as business services that customers can use as part of the core QAD Cloud ERP offering and/or as integrated tools or services via the platform. Since the last Value Matrix, QAD has made a host of functional improvements to its products, including a new version of QAD Production Orders and an updated supplier portal. As the vendor moves more of its customer-base onto its enterprise platform, increasing adoption of its UI and technology enhancements, its ability to demonstrate the value of its cloud products and positioning in the Value Matrix should improve.

ROOTSTOCK

Rootstock is an Expert in the 2018 Edition of the ERP Value Matrix. Focused on manufacturing and distribution delivered in the cloud on the Salesforce platform, Rootstock services customers in high tech, machinery, electronics, industrial equipment, engineer to order, project manufacturing, and wholesale distribution. Since the last Value Matrix, Rootstock's biggest move was the acquisition of Kenandy in January 2018, which is an ERP cloud vendor built on the Salesforce platform. It is focused on manufacturing, supply chain, distribution, financials, and order-to-cash. The move consolidates Rootstock's leading position in the manufacturing and distribution space on the Salesforce platform.

Rootstock has been investing in actualizing the technologies delivered on the Salesforce platform for its customers, such as Einstein Analytics and IoT. For existing Salesforce customers, the native integration and familiar Lightning UX are the value-drivers that justify consolidating significant portions of the enterprise technology on the Salesforce platform. Rootstock has been successful in attracting customers who aren't already Salesforce customers, demonstrating the value of its technology that is not underpinned by Salesforce. As the vendor continues to expand beyond the Salesforce umbrella, its ability to demonstrate its stand-alone value and its position in the Value Matrix should improve.

FACILITATORS

Facilitators in the Matrix include FinancialForce, Microsoft Dynamics 365 Business Central, SAP Business ByDesign, Qualiact, and Unit4.

FINANCIALFORCE

FinancialForce is a Facilitator in the 2018 ERP Value Matrix, delivering a cloud-based ERP built on the Salesforce platform. With a customer-centric approach to the visibility FinancialForce provides its customers, the vendor focuses on financial management, professional services automation (PSA), and people management with its core product offerings. A significant driver of its value, FinancialForce is natively integrated with Salesforce, providing Salesforce users with a familiar look and feel as well as seamless workflows from opportunity to invoice.

Since the last Value Matrix, FinancialForce has continued to work with Salesforce to leverage the platform's Einstein Analytics technology. At its annual user conference, FinancialForce announced it is delivering embedded reporting and analytics with FinancialForce PSA Analytics, which is powered by Einstein Analytics and gives users real-time visibility of KPIs across different service groups. Additionally, after last year's announcement that FinancialForce was partnering with ADP to provide HCM capabilities to the platform, the vendors have deepened their collaboration. Customers can integrate ADP's employee

records with FinancialForce PSA so updates and changes are automatically shared between the two systems, with ADP acting as the primary system of record for employee data.

Though its investments in automating professional services business process are sure to generate additional value for customers, FinancialForce's ERP offerings have remained narrowly focused while other vendors in the market have diversified their cloud offerings, adding vertical industry-specific solutions to better serve their customers. While the native integration with Salesforce facilitates a customer-centric view of the customer's business, developing capabilities that answer the needs of sub-verticals within the professional services market would help FinancialForce's functionality score in future editions of the ERP Value Matrix.

MICROSOFT DYNAMICS 365 BUSINESS CENTRAL

Microsoft is a Facilitator with its Dynamics 365 Business Central product in the 2018 edition of the ERP Value Matrix. Its cloud-first, SMB offering, Microsoft Business Central is built on the NAV platform and was formerly called Dynamics 365 for Finance and Operations, Business Edition. With easy integration to Microsoft Office, Business Central offers a comprehensive suite of capabilities geared toward smaller companies such as financial management, SCM, project management, operations management, sales and customer service, and compliance.

With its October 2018 release, Business Central will boast a number of enhancements that stand to benefit both customers and partners (Nucleus Research, *S122 – Microsoft Business Central Update*, August 2018). Features planned for the update include a new desktop UI, customizable Power BI reports within the Business Central homepage, and flexible deployment options. Microsoft is also extending connectivity to the intelligent edge via Power BI, PowerApps, Flow, and AI to its on-premises Business Central customers as well as Dynamics GP, Dynamics SL, legacy Dynamics NAV users. The move to bring legacy SMB customers to adopt intelligent cloud technologies will also allow partners to deliver migration services and should better prepare customers to make the leap to cloud when the business case presents itself.

SAP BUSINESS BYDESIGN

SAP Business ByDesign is a Facilitator in the 2018 edition of the ERP Value Matrix, serving SMBs with its born-in-the-cloud solution. Designed as an end-to-end ERP, Business ByDesign supports finance, project management, procurement, supply chain management (SCM), customer relationship management (CRM), and human resources. The solution delivers industry-specific functionality to organizations in professional services, wholesale distribution, manufacturing, and the public sector (for North American customers only). With a global presence, Business ByDesign offers language, currency, and regulatory localizations for over 130 countries.

In the most recent release of the product, SAP Business ByDesign 1808, SAP took steps to bring more intelligent capabilities to the platform. Users can integrate predictive analytics with information delivered to their tailored overview pages, drawing on pre-packaged content from SAP. The solution leverages SAP Analytics Cloud to gain insights into the drivers of the customer's business. SAP is focused on keeping the user experience simple while also providing flexibility, so customers can tailor the solution to their exact needs (Nucleus Research, *S8 – SAP Business ByDesign deliver extensibility*, January 2018). The vendor plans to deliver more out-of-the-box capabilities with each release to make user adoption easier and shorten the time to value realization for customers. Nucleus expects further functional enhancements to improve SAP Business ByDesign's position in future editions of the Value Matrix.

QUALIAC

Qualiac is a Facilitator in the 2018 ERP Value Matrix. In October 2017, Qualiac was acquired by Cegid, a retail and talent management software vendor headquartered in France. The move is designed to allow Cegid customers to extend their solution ecosystem beyond payroll, taxation, and HCM. Catering to the SMB market, Qualiac has been operating as a subsidiary of Cegid; however, there are plans for the Qualiac brand to be consolidated under the Cegid brand at some stage.

Qualiac offers ERP solutions focused on finance, production, supply chain, and public sector institutions. It also provides complementary modules to aid in decision-making and collaboration, such as data-connectors with third-party BI tools and a cross-functional workflow information manager. The solution is highly configurable, requiring minimal IT resources for users to leverage the embedded analytics and data traceability that has helped Qualiac make inroads in the healthcare market. With Qualiac's acquisition and consolidation under the Cegid brand, the future of the solution and its activity in the market remains to be seen.

UNIT4

Unit4 is a Facilitator in the 2018 edition of the ERP Value Matrix, scoring highly in usability, reflecting the vendor's focus on people and flexibility. The vendor delivers a host of solutions focusing on professional services, higher education, public services, and non-profits. Its flagship ERP solution, Unit4 Business World, offers financial management, project management, procurement management, human resources and payroll, as well as field service and asset management as its core capabilities.

As part of its platform strategy, Unit4 is looking to enable customers to take advantage of new technologies facilitated by the cloud. For example, the vendor recently released an extensions kit that allows customers and partners to build low-code/no-code applications that can be shared on Unit4's cloud application marketplace. The capabilities are designed to allow customers to consume cloud-based services on top of Business World. Unit4 has

also been investing in its digital assistant, Wanda, which works through any messaging application like Skype or Slack. The technology leverages natural language processing, pattern recognition to automate repetitive tasks, and links into a company's business systems to operate as the interface for the user, which replaces manual searches through disparate information repositories.

Offering SaaS, dedicated cloud, and on-premises deployment, Unit4 allows extensibility that increases its ease of use while providing functional depth in the verticals it serves. The vendor is investing in the concept of a self-driving ERP, which will automate traditional business processes and further the value that the solution delivers. Nucleus expects that Unit4's investments will increase the value customers realize through its usability and further set it apart from other vendors in the market.

CORE PROVIDERS

Core Providers in the Matrix include IQMS, Plex, Sage, and VAI.

IQMS

IQMS is a Core Provider in the 2018 ERP Value Matrix, focusing on mid-market manufacturing customers operating discrete and batch processes. With an end-to-end solution that covers ERP, MES, Quality Management Systems (QMS), and WMS, IQMS is underpinned by a single database and offers seamless, unified information flows for 21 types of manufacturing. IQMS provides customers a choice in how they deploy the software, including on premises, hosted perpetual licenses, and SaaS.

To ensure its customers get the most value from their shop floor, IQMS is deploying a suite of technologies that assist with production and process monitoring. Characterized as "Practical Industry 4.0", IQMS is looking to let companies improve their shop floor operations with capabilities such as backflushing operational information, overall equipment effectiveness (OEE), maintenance, repair and operations (MRO) tracking, and automation. IQMS is bringing several enhancements to its software including an integration layer that has standard interfaces with many major software vendors such as Salesforce, SAP, Oracle, and Marketo. IQMS is also delivering track and trace capabilities to support food and beverage, medical, and automotive customers.

With its MES solution, IQMS is targeting divisions of Fortune 1000 companies that frequently run SAP or Oracle for ERP but need a production and process monitoring solution, specializing in servicing plastic processing, metal forming, packaging, and assembly customers. As IQMS continues to offer functional depth and has begun to deliver Industry 4.0 technologies, additional usability enhancements should help the vendor keep pace with the market overall and maintain its position in future editions of the Value Matrix.

PLEX

Plex is a Core Provider in the 2018 ERP Value Matrix, focusing on a suite of industries including high tech, electronics, industrial manufacturing, automotive, aerospace, food and beverage, and metal forming. With Plex Manufacturing Cloud, the vendor covers business process management with accounting and financials, enterprise management, CRM, HCM, procurement, and supply chain planning. Plex also handles manufacturing operations with planning and scheduling, inventory management, quality management, production management, and engineering program management.

Since the last Value Matrix, Plex has made several moves to improve the value it is delivering to customers moving forward. For example, in May 2018, Plex announced the release of Plex Mobile, a native mobile application that is designed to be a seamless extension of Plex Manufacturing Cloud. With role-based functionality, Plex Mobile looks to address specific tasks within manufacturing operations such as inventory management, shipping and receiving, HCM, and production management. Additionally, in July 2018, Plex announced that it had acquired DATTUS, Inc., an industrial IoT (IIoT) vendor. DATTUS brings with it three core capabilities, namely IIoT connectivity, data management, and data analysis. The steps that Plex is making demonstrate that the vendor is looking to equip its customers with technologies that improve efficiency and bring modern capabilities to midmarket manufacturing customers, thereby delivering better value moving forward.

SAGE

Sage is a Core Provider in the 2018 edition of the ERP Value Matrix. Delivering solutions for small- and medium-sized businesses as well as enterprises, Sage covers industry-specific functionality in distribution for wholesale, logistics, and retail; manufacturing for high-tech, industrial equipment, metal fabrication, and medical devices; process manufacturing for chemicals, cosmetics, food and beverage, and pharmaceuticals; and services for advertising, consulting, engineering, IT/software, and equipment maintenance and repair. The vendor underwent a significant rebranding in October 2017, introducing Sage Business Cloud as the one-stop-shop for accounting, financials, people, and enterprise management.

As part of its shift to cloud, Sage is looking at how it can apply ML and AI to its product offerings in order to reduce administrative tasks. The vendor is also building up a comprehensive marketplace for its VAR and ISV partners, allowing customers to find the functional extensions that would benefit their business. The recent abrupt departure of Sage's CEO, Stephen Kelly, raises questions about the future trajectory of the company and where its investments will deliver value to customers moving forward. With a large existing install-base, Sage needs to provide a coherent path to the cloud and modern ERP solutions or its risks further loss of legacy customers to rival vendors.

VAI

VAI (Vormittag Associates, Inc.) is a Core Provider in the 2018 ERP Value Matrix, focusing on midmarket customers in several industries. The industries VAI services include electronics, plastics, medical products, automotive, industrial equipment, apparel, food and beverage, building and electrical supply, and plastics. VAI also has two industry-specific solutions covering pharmaceutical and food distribution and manufacturing. The vendor has a suite of cross-industry capabilities such as CRM, WMS, analytics, and mobile, in addition to financial management, distribution management, manufacturing management, and retail as part of the core product capabilities within S2K Enterprise.

Since the last Value Matrix, VAI has made a number of announcements centered on bringing modern technologies to VAI customers. For example, in October 2017, VAI unveiled its Enterprise Intelligence approach which leverages cloud, mobile, and analytics, and is designed to empower midmarket companies to make better business decisions, giving the right information to the right user at the right time. More recently, VAI announced a partnership with SAP Concur, a spend management solution provider. The partnership provides VAI customers with an integration between Concur's cloud application and VAI's enterprise platform. Designed to eliminate manual, time-consuming tasks associated with expense management, VAI customers can leverage the capabilities to gain real-time access to expense data as well as leverage the mobile application to input data from anywhere.

Offering customers unlimited user licenses, VAI can deliver value to fast-growing midmarket companies, especially when customers are going through mergers and acquisitions. As VAI shifts more of its customers to cloud and delivers more Industry 4.0 capabilities to its platform, the vendor's ability to answer the needs of its customers and its position in future editions of the Value Matrix should improve.