

NUCLEUS
RESEARCH

SUPPLY CHAIN PLANNING TECHNOLOGY VALUE MATRIX 2021

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THE BOTTOM LINE

With external disruptions causing chaos for regular enterprise activities in 2020, robust supply chain planning solutions stormed into the tech world limelight and became must-have software tools in short order. Resilient plans and operational agility are crucial for companies to successfully navigate dynamic business environments while accounting for resource constraints and customer service requirements. The best-of-breed approach still resonates among customers with acute pain points, but vendors must prove that they are capable of delivering long-term value through the ability to adapt to a variety of use cases.



MARKET OVERVIEW

Regardless of size and industry, organizations must create comprehensive plans to coordinate various initiatives from procurement and manufacturing to distribution and logistics. External events and internal constraints both force companies to comprehensively prepare for best- and worst-case scenarios in order to maintain long-term success. Supply chain planning (SCP) vendors that can centralize data and facilitate interdepartmental collaboration on common goals will improve operational resilience to disruptions and promote sustainable future growth.



Market trends have forced companies to think in the short term and prioritize accelerated process changes that alleviate pain points as quickly as possible. Vendors have begun to execute implementations in a matter of weeks rather than months or years, which has further democratized SCP capabilities to SMBs and midmarket organizations with limited resources. Solutions with best-of-breed capabilities and lower implementation barriers have seen remarkable success among customer bases that didn't previously feel the need to modernize their supply chain processes.

While many SCP customers now prioritize near-term business agility, the overall demand for a platform approach to planning hasn't dissipated. Vendors must still be able to prove that they can handle a wide range of SCP functionalities and drive benefits across the entire value chain. This versatility must be delivered through software configuration and enable customers to build out implementations without modifying the solution's underlying code. Deployments with minimal customizations have longer lifecycles, are cheaper to maintain, and easier to train new users on. Demonstrating use case flexibility through solution configurability is a major differentiator in competitive deals. However, customers need to avoid fine tuning their implementations too much to prevent the risk of reverting to legacy processes and jeopardizing the long-term value of the deployment.

A longstanding computer science guideline states that "garbage inputs lead to garbage outputs" and analytic capabilities enhanced by artificial intelligence (AI) and machine learning (ML) are no exception to this rule. The insights generated by these innovations are limited by the quality of their input data and vendors have invested heavily to expand the depth and breadth of information that can be leveraged by SCP solutions. Seamless integrations with leading ERP platforms are critically important while connections to third-party sources for information such as weather and eCommerce trends have established new opportunities for driving benefits to supply chain plans and operational tactics. Customers can now tailor plans through multiple scenario analysis on digital twins and automatically transmit changes to forecasts and distribution plans.

In this Technology Value Matrix, Nucleus evaluated supply chain planning vendors based on their delivery of value to customers through the functionality and usability of the software (Nucleus Research s142 – *Understanding the Value Matrix*, September 2018). Capabilities considered included sales and operations planning, integrated business planning, demand planning and sensing, supply planning, scheduling, logistics management, inventory planning and optimization, capacity planning, and what-if scenario analysis. Customer value is the most important factor in Nucleus evaluations of vendor offerings and can take many forms depending on company size, industry, and adopted use cases for the software. The research is intended to serve as a snapshot of the SCP technology market, help inform customers about how vendors are delivering, and take stock of what can be expected in the future based on present investments.

LEADERS

E2OPEN

E2open is a Leader in the 2021 SCP Technology Value Matrix. The vendor delivers comprehensive coverage of supply chain planning functionalities including sales and operations planning, inventory planning and optimization, global trade management, logistics planning and execution, and channel shaping. The E2open platform is unified through the Harmony user experience layer which operates across the entire solution ecosystem to consolidate tasks and dashboards into a single interface for end users. E2open can create a complete digital twin of an organization's value chain that connects multiple tiers of upstream, downstream, logistics, and global trade partners to provide complete end-to-end planning capabilities.

E2open continued regularly updating the solution, with releases arriving in August and November of 2020, and February of 2021. The August update included reimagined channel incentive workflows, improved transportation bookings capabilities, and expanded intercompany collaboration capabilities. The November release added more channel shaping functionalities, upgraded demand sensing capabilities, and extended real-time collaboration applications on the Harmony interface. The February update included general solution enhancements and deeper AI functionalities to enhance decision making and reduce risk. Also in February 2021, E2open and CC Neuberger Principal Holdings I completed a transactional business combination, with the new company debuting on the New York Stock Exchange under the ticker symbol ETWO.

Customers note that the solution's support for a broad range of enterprise-grade supply chain use cases is a primary value driver and that they are able to connect processes and company divisions in ways that previously were not possible. The E2open platform natively supports a large number of solution integrations with third party ERP providers, and organizations that implement multiple E2open applications on the same deployment will experience the strongest returns. Nucleus expects E2open to maintain its aggressive expansion strategy which will contribute to its position as an enterprise-grade solution on future editions of the Value Matrix.

INFOR

Infor is a Leader in the 2021 SCP Technology Value Matrix. Infor Supply Chain Planning (SCP) provides comprehensive coverage of supply chain planning capabilities including demand sensing and planning, sales and operations planning, supply planning, capacity management, and scheduling. Infor's go-to-market strategy for all of its enterprise applications centers on specific verticals including distribution, food and beverage, logistics,

manufacturing, and retail. Infor SCP can operate either as a standalone solution or as an extension to a wider Infor implementation and can scale to manage the largest and most complex global organizations.


The vendor has continued integrating Infor SCP with Infor Nexus to deliver end-to-end visibility of operational value chains across multi-enterprise networks. The Infor Coleman AI platform enables customers to deploy AI- and ML-driven enhancements such as natural language processing and anomaly detection to drive additional process improvement to supply chain planning. Customers can also configure Infor SCP to prioritize metrics and analysis methods based on their individual requirements and can natively connect with a wide range of third-party applications in addition to other Infor solutions.

While its overall strategy pledges support for all deployments, Infor has facilitated transitions to the cloud by extending the structural integrity of its on-premises solution to a cloud-native delivery model. Nucleus has previously identified the outsized benefits of cloud deployments relative to on-premises implementations, which drive significant value for companies regardless of their size or industry (Nucleus Research u176 – *Cloud delivers 4.01 times the ROI as on-premises* – November 2020). As Infor expands its coverage of supply chain use cases, Nucleus expects its value proposition to resonate with both current customers and organizations that need to overhaul their supply chain planning processes.

JOHN GALT SOLUTIONS

John Galt Solutions is a Leader in the 2021 SCP Technology Value Matrix. The vendor's solution, Atlas Planning Platform, is a single cloud-based SaaS solution which provides supply chain planning capabilities such as sales and operations planning, demand planning, inventory planning and optimization, replenishment, transportation optimization, supply planning, and scheduling. John Galt covers a broad range of verticals including food and beverage, chemicals, retail, high tech, industrial manufacturing, automotive, wholesale distribution, pharmaceutical, and medical devices.

John Galt's approach to supply chain planning emphasizes the management of workflow rules instead of various forms of operational data to reduce institutional bias and optimize business outcomes. The vendor has also invested heavily in AI-driven enhancements for the Atlas Planning Platform to automate tasks and generate prescriptive recommendations. The solution's probabilistic planning and reinforcement learning functionalities allow users to mix and match tactical choices and forecasting methods to create plans which are more resilient to variability. The Supply Chain Network Model provides a digital twin, enabling organizations to simultaneously plan and analyze scenarios across multiple time horizons while integrating new data sources into overall supply strategies. As a result, organizations can optimize supply chains around preferred targets, such as service levels or sustainability goals including reduced carbon emissions and streamlined inventories.



Customers report that the solution is highly flexible, with shorter implementation times than the industry average, which lead to accelerated payback periods for the initial investment. The Atlas Planning Platform can be configured with enough detail to match intricate operational needs while providing new levels of organizational visibility to help companies carry out integrated business planning. Nucleus expects that John Galt Solutions' comprehensive coverage of midmarket and large enterprise supply chain planning capabilities and rapid implementation features will drive value for new and existing customers in 2021 and beyond.

KINAXIS

Kinaxis is a Leader in the 2021 SCP Technology Value Matrix. The vendor's flagship product, RapidResponse, is delivered through a cloud-based SaaS platform that delivers broad functionality support for supply chain planning processes including inventory planning and optimization, demand sensing and planning, capacity planning, and sales and operations planning. The solution also has the flexibility to design and test new algorithms and workbooks in a sandbox environment, helping large multinational enterprises standardize their complex supply chains.

Kinaxis has made deep investments to help its customers adopt advanced analytics and drive Self-Healing Supply Chains, with notable functionality developments in task automation and demand sensing. Taken together, these capabilities can help organizations with variance detection and what-if scenario planning that can suggest corrective actions based on unique internal priorities. The solution also provides a wide range of out-of-the-box functionalities and integrations to third-party applications, which accelerates each customer's time-to-value. Kinaxis serves a large number of verticals including retail, automotive, aerospace and defense, consumer products, high tech and semiconductors, industrial and life sciences.

In October 2020, Kinaxis launched PartnerLink to facilitate interaction between customers, prospects, and its global partner ecosystem. Also in October, the vendor released numerous product updates, including a new Command & Control Center and enhancements to its demand management capabilities for improved forecast accuracy. To help customers overcome budget and resource constraints imposed by the challenges of 2020, the vendor launched two offerings, Live Lens Insights and RapidStart, to jumpstart supply chain process changes. Kinaxis's flexibility to meet complex requirements and cover unorthodox use cases make it an attractive option for companies looking to standardize complex supply chain practices. The solution's usability enables organizations to quickly transition away from legacy processes which Nucleus expects will help Kinaxis continue to drive enterprise-grade value, both now and in the future.

ONE NETWORK ENTERPRISES


One Network Enterprises (ONE) is a Leader in the 2021 SCP Technology Value Matrix. The vendor delivers planning applications on the NEO Platform with coverage for functionalities including sales and operations planning, demand sensing and planning, supply planning, global logistics management, and inventory optimization. ONE customers can work with their upstream and downstream partners in a multi-tier and multiparty network to improve intercompany coordination and overall supply chain visibility. The vendor serves a number of core industries including retail, consumer goods, automotive, manufacturing, government and defense, healthcare, pharmaceuticals, restaurants, and logistics service providers.

ONE has made significant strides in improving the usability of AI and ML-driven enhancements, with virtual agents such as NEO which can learn tasks in support of autonomously managing supply chain operations. The vendor's proprietary algorithms can be blended to create the exact mix of analytics that companies require for advanced initiatives such as causal forecasting, multi-echelon transportation and inventory optimization, and what-if scenario planning. The NEO Platform can account for supply chain process variation in its configuration layers which enable customers to accelerate implementations and experience shorter payback periods.

ONE's approach to delivering a single version of the truth automatically executes information changes as they occur and helps organizations cut down on data proliferation and system information delays. The intercompany connectivity allows partners across each value chain to benefit from analysis surrounding resource and transportation constraints, enabling all participants to optimize their decision making. Nucleus expects that ONE's sustained focus on delivering a multitiered partner network with enhanced analytics and data management capabilities will drive long-term value for its customers in 2021 and beyond.

TOOLSGROUP

ToolsGroup is a Leader in the 2021 SCP Technology Value Matrix. The vendor provides its flagship solution Service Optimizer 99+ (SO99+) through a flexible and scalable platform which specializes in inventory planning and optimization with the ability to create an end-to-end model for all possible SKU-location combinations that optimizes costs while maintaining service level fulfillment. SO99+ also covers functionalities including demand planning and sensing, sales and operations planning, allocation and replenishment, promotions planning, and production planning. ToolsGroup targets customers across a broad range of industries including manufacturing, food and beverage, retail, distribution, automotive, and consumer packaged goods.



ToolsGroup takes a unique approach to integrating artificial intelligence enhancements to its planning capabilities. Rather than using a collection of parameters to forecast demand, the solution uses one self-learning algorithm which can use as little as six months of historical data to generate actionable predictions. The SO99+ platform can integrate a wide variety of third-party data to facilitate collaboration between an organization's upstream and downstream processes. SO99+ also boasts native connectors to many different third-party systems, enabling it to coexist and cooperate within large enterprise application ecosystems to drive value for the organization.

ToolsGroup can scale to manage everything from holistic midmarket operational planning to honing day-to-day tactics for enterprise companies. SO99+ can quickly add new products to existing portfolios and automatically identify likely demand factors based on the historical data of similar products. The vendor historically has won many deals based on the strength of its inventory optimization functionalities but has recently gained momentum with customers who plan on using the entire solution from the beginning. Nucleus expects that ToolsGroup's usability investments and continued functionality developments will drive significant returns for both new and existing customers, which will contribute to its position on the Value Matrix in 2022 and beyond.

VANGUARD

Vanguard is a Leader in the 2021 SCP Technology Value Matrix. The Vanguard Predictive Planning Platform™ provides a suite of applications for organizations with functionalities covering demand and supply planning, multi-echelon inventory optimization, sales and operations planning, and capacity planning. The vendor also extends into financial planning, budgeting and forecasting, as well as workforce planning and IT cost transparency. Vanguard has emphasized automation and usability enhancements, enabling customers to precisely configure implementations from the web-based interface. Vanguard covers a wide range of verticals including food and beverage, consumer goods, manufacturing, pharmaceutical, and retail.

In October 2020, and January 2021, the vendor announced new strategic partnerships with TBM Consulting and Plantensive respectively. The relationships will further extend Vanguard's global network of channel partners and bolster support for customers with complex industry-specific requirements. Vanguard has also invested heavily in its native data integrations, allowing customers to incorporate upstream and downstream information into short-term tactics and long-term strategic work. Artificial intelligence enhancements such as machine learning-driven variance analysis and anomaly detection help organizations tap into underlying trends to generate deeper and more valuable insights.

The Vanguard platform can scale to handle enterprise-grade data loads through multi-enterprise networks, enabling customers to holistically analyze their value chains. End users

can create viewing and editing hierarchies to democratize information sharing and collaboration to accelerate analysis and decision making. Nucleus expects that Vanguard's flexibility and vertical expertise will continue to drive strong returns for its customers, which will contribute to its position on future editions of the Value Matrix.

EXPERTS

BLUE YONDER

Blue Yonder is an Expert in the 2021 SCP Technology Value Matrix. Formerly known as JDA Software, the vendor delivers broad coverage of supply chain planning functionalities including demand planning and sensing, sales and operations planning, network design, category management, capacity and distribution planning, and factory scheduling. The Blue Yonder Luminate platform can also extend into other execution capabilities such as workforce and warehouse management and transportation planning and execution. Blue Yonder serves a wide variety of industries and has specialized functionalities for customers in manufacturing, hospitality, retail, and distribution.

As a result of its aim to implement autonomous supply chains, Blue Yonder has made significant advancements in applying AI and ML technology to its planning solutions. Organizations can leverage proprietary algorithms to bolster conventional statistical analysis with probabilistic models and implement functionalities such as autonomous parameter tuning. Customers report that Blue Yonder's end-to-end platform approach to supply chain visibility enables meaningful process changes across departments and geographies, with the vendor working as a long-term development partner to drive benefits beyond the initial implementation.

Blue Yonder has released numerous product updates across the Luminate portfolio, including improvements to the user experience, expanded inventory optimization capabilities, and various AI- and ML-based enhancements to the solution's planning applications. Looking ahead, the vendor plans to invest further in vertical-specific optimization capabilities and data integration functionalities to further extend the scope of its already wide-ranging offerings. Nucleus expects that Blue Yonder's execution on its ambitious functionality roadmap will provide a robust value proposition that will resonate with both new and existing customers in 2021 and beyond.

GAINSYSTEMS



GAINSystems is an Expert in the 2021 SCP Technology Value Matrix. The GAINSystems platform supports end-to-end planning with functionalities including sales and operations planning, demand sensing and planning, inventory optimization, production and workflow management, and replenishment planning. The vendor specializes in serving manufacturing, wholesale distribution, aftermarket parts and retail customers with complex inventory and distribution requirements that need to overhaul their supply chain planning processes without pausing their regular operations for too long. GAINSystems deploys in the cloud for new customers, with recent updates focusing on promoting transitions away from on-premises deployments and enhancing the cloud solution's capabilities.

Customers report that GAINSystems' inventory optimization capabilities are instrumental for improving visibility across the entire value chain. Users can drill down into point-of-sales data and individual SKU/location combination metrics to identify optimal container and warehouse configurations and update historical sales performances with demand sensing to fine-tune tactics and strategies. GAINSystems also has strong integrations with a wide variety of ERP solutions including SAP S/4HANA, Oracle Fusion Cloud ERP, Oracle NetSuite, and Microsoft Dynamics 365. Recent developments have bolstered the solution's scenario planning, adding native functionalities for product lifecycle management, capacity planning, and production optimization.

In July 2020, GAINSystems announced that Francisco Partners, a private equity firm headquartered in San Francisco, California, had made a strategic growth investment to accelerate product development and new customer acquisitions. The vendor aims to bolster customers' ability to continuously plan by combining new data sources with proprietary AI-driven algorithms to facilitate end-to-end scenario comparison analysis. Nucleus expects that GAINSystems will keep pace with the market's development trends in both usability and functionality, which will drive high and sustainable returns on investment for both new and existing customers.

MANHATTAN ASSOCIATES

Manhattan Associates is an Expert in the 2021 SCP Technology Value Matrix. The vendor provides Manhattan Active Supply Chain primarily to customers in retail and wholesale verticals for managing distribution, transportation, and planning requirements. Within the solution, customers can use Manhattan Active Inventory for functionalities including replenishment management, inventory optimization, sales and operations planning, warehouse management, and forecasting to drive value for their organizations. Manhattan Associates can align company objectives with capacity planning and what-if scenario analysis with safety stock minimum and maximum calculations to maintain service levels for multiple demand channels while optimizing costs. The vendor can integrate plans and forecasts from multiple sources into a company's overall supply chain execution strategy to

streamline distribution requirements and improve overall organizational visibility from a single dashboard.

Manhattan Associates has begun to reap the benefits of its recent investments in migrating to the cloud, with success coming in both winning new customers and transitioning current customers away from on-premises deployments. In May 2020, the vendor launched the Manhattan Active Warehouse Management solution, a cloud-native microservices tool that enables companies to consolidate distribution requirements into one place. Manhattan Associates subsequently released the Manhattan Active Allocation solution in October 2020 to bolster the management capabilities for short-lifecycle retail inventory. Nucleus expects that Manhattan Associates' deep functional expertise in retail verticals and new cloud delivery options will drive significant returns for its customers which will help maintain its position on the Value Matrix in 2021 and beyond.

O9 SOLUTIONS

o9 Solutions is an Expert in the 2021 SCP Technology Value Matrix. The vendor specializes in delivering decision management software to the largest enterprise organizations, with support for functionalities including sales and operations planning, demand sensing and shaping, promotions and merchandise planning, and integrated business planning. The o9 Solutions platform is cloud native and can consolidate data streams with unique business models and planning preferences to generate supply chain strategies that are resilient in the face of both internal constraints and external disruptions. o9 Solutions can serve a wide range of industries but has experienced recent success with customers among verticals such as consumer goods, industrial manufacturing, retail, restaurants, and apparel.

o9 Solutions approaches supply chain planning by focusing on model flexibility with common data points natively linked wherever they occur, so changes are automatically propagated through the entire system. Customers can seamlessly carry out multiple what-if scenario analyses with the solution's automated aggregation capabilities, avoiding unnecessary and expensive data proliferation. The o9 Enterprise Knowledge Graph supports tactical planning across all time horizons, and users can add to or extend the models on an ad-hoc basis. o9 Solutions has also made recent investments into production scheduling with functionalities for shop floor analytics and scheduling management, which enhance the granularity of the platform's planning.

Customers report that o9 Solutions' extensive coverage of supply chain planning capabilities from a single point of origin, rather than a collection of multiple solutions or instances, make it an ideal choice for overhauling supply chain planning across multiple geographies, distribution channels, and lines of business. Much of the o9 platform has standardized rollout features to facilitate implementation times, but the solution remains flexible enough to meet whatever challenges arise for its customers. Nucleus expects that o9's unique value

proposition for holistic supply chain planning will earn it a place on future RFP short lists for enterprise-grade organizations, and that its aggressive product innovations will continue to drive high and sustainable returns for its customers.

ORACLE

Oracle is an Expert in the 2021 SCP Technology Value Matrix. The vendor provides a full range of Supply Chain Planning cloud applications in its Oracle Supply Chain and Manufacturing suite. Oracle Supply Chain Planning supports functionalities including sales and operations planning, demand planning, inventory optimization and management, and order management. The solution can scale up to handle the operational needs for enterprise-grade organizations and has the flexibility to conduct supply chain planning work either as an expansion of an established Oracle deployment or as an independent solution. As a result of focusing on cloud delivery, Oracle can tailor its supply chain planning modules to match customer requirements and improve the solution's return on investment.

Oracle drives regular product updates to its Supply Chain Planning Applications, with the most recent additions arriving in January 2021. The solution has expanded its production scheduling capabilities, added ML-driven improvements to its analytics offerings, and further strengthened both its data integrations and user experience. Nucleus has observed that Fusion Cloud Supply Chain deployments are most successful when they extend the reach of existing Oracle applications, but the solution's comprehensive coverage of SCP functionalities make it an attractive option for many organizations. Nucleus expects that Oracle's investments in transitioning enterprise application workloads to the cloud and developing broader planning functionalities will continue to promote long-term value for its customers.

SAP

SAP is an Expert in the 2021 SCP Technology Value Matrix. The vendor delivers supply chain planning functionalities through its Integrated Business Planning (IBP) solution, with six modules that support inventory optimization, sales and operations planning, response and supply planning, demand-driven replenishment, control tower, and forecasting. The SAP IBP solution is available on the HANA cloud platform and can manage an organization's end-to-end value chain. The solution's comprehensive approach to planning assists customers with optimizing lead times and reducing operational costs at every step in the supply chain. SAP IBP drives the most value for customers as part of a larger SAP ecosystem, allowing organizations to use cross-functional data from multiple departments to create forecasts and generate insights.

In recent years, SAP has shifted its planning models to center around build-to-order plans, to both capture real-time demand fluctuations and streamline inventories for both finished and in-process materials. New data visualization and robust scheduling capabilities both contribute to enhanced constraint planning, allowing companies to strategize around potential disruptions and create blueprints to maximize supply chain resilience and business agility. Nucleus believes that SAP's comprehensive coverage of both industries and supply chain use cases will continue to deliver long-term value to customers of all sizes.

FACILITATORS

ANAPLAN

Anaplan is a Facilitator in the 2021 SCP Technology Value Matrix. The vendor champions the concept of "Connected Planning" for its customers, enabling them to centralize planning processes on a single open platform. Anaplan supports supply chain management functionalities including demand sensing and planning, sales and operations planning, and supply planning. The platform can manage large and complex data workloads for customers of any size and covers a large number of verticals including automotive, oil and gas, manufacturing, consumer goods, retail, and life sciences.

Anaplan drives the most value when organizations buy into its philosophy for consolidating planning processes across multiple departments. To that end, the vendor provides seamless connections to its planning solutions for finance, sales, IT, marketing, and human resources, enabling customers to create detailed forecasts and what-if scenarios based on their unique cross-functional requirements. The solution's flexibility allows it to cooperate closely with existing enterprise application deployments, which can facilitate organizational growth towards true integrated business planning.

Anaplan made several significant announcements at its user conference CPX in September 2020, including a new strategic partnership with the Google Cloud Platform. The move represents Anaplan's first offering on a public cloud platform and will increase the solution's scope for organizations that leverage Google Cloud. The vendor also strengthened its relationship with Amazon Web Services to extend its reach and launched PlanIQ with Amazon Forecast. The new application will deliver AI-driven enhancements for predictive forecasting and scenario modeling, along with various updates to its solution integrations and collaboration functionalities. Nucleus expects that Anaplan's holistic approach to enterprise planning will continue to win competitive deals among midmarket and enterprise organizations as it keeps pace with the market's overall advancements in both usability and functionality.

BLUE RIDGE

Blue Ridge is a Facilitator in the 2021 SCP Technology Value Matrix. The vendor supports supply chain capabilities including sales and operations planning, forecasting, demand sensing and shaping, inventory management, price optimization, and integrated business planning. Blue Ridge helps customers transition their planning and operations away from legacy practices by fostering a holistic organizational view with its integrated platform offering. Customers note that the vendor's focus on usability and native cloud delivery both accelerate the solution's time-to-value, which should engage organizations that are wary of long and complex implementations. Blue Ridge works mainly in wholesale distribution and specialty retail industries with specialized experience in verticals such as wine and spirits, foods services, furniture and hardware, HVAC, plumbing, and pet supplies.

The Blue Ridge Platform can drive significant value as a standalone deployment but also boasts connections with more than 40 different ERP platforms, including a native integration with Oracle NetSuite. The vendor has invested further in applying AI-driven enhancements to its core analytical engines with the goal of improving organizational visibility and forecast accuracy without compromising its user experience innovations. Customers can blend internal and external data sources to create optimal inventory policy combinations in response to real-time scheduling and demand changes. Nucleus expects Blue Ridge's functionality developments and verticalization strategy to attract new organizations looking to strengthen their supply chain planning capabilities and continue to deliver long-term value for its existing customers.

LOGILITY

Logility is a Facilitator in the 2021 SCP Technology Value Matrix. The Logility platform is intuitive and flexible enough to cover a broad range of functionalities including demand sensing and optimization, pricing and promotion analysis, inventory optimization, merchandise planning, vendor management, replenishment planning, and automated order promising. Logility customers can consolidate these initiatives and more to implement true multi-horizon integrated business planning across geographies and divisions. Logility serves a wide variety of verticals including apparel, durable goods, food and beverage, life sciences, process manufacturing, high tech, retail, and wholesale distribution.

The Logility Digital Supply Chain Platform also provides data standardization capabilities through its robust data management and integration layer between customer data and the supply chain planning software. Companies can incorporate additional data sources and conduct advanced analytical work in support of causal forecasting and continuous process

optimization. The Logility platform also supports what-if scenario analysis, enabling organizations to assess the impact of external disruptions and internal workflows to demand channels and supplier relationships.

Customers report that Logility implementations facilitated by the solution's strong integrations with third-party ERP systems and the ability to precisely configure modules without customizing the software's infrastructure. The solution's usability makes it an appealing choice among a crowded software market that often requires large time and personnel investments to get implementations up and running. Nucleus expects that Logility's artificial intelligence enhancements and accelerated time-to-value proposition will continue.

MPO

MP Objects (MPO) is a Facilitator in the 2021 SCP Technology Value Matrix. The MPO Platform helps organizations implement Supply Chain Orchestration processes to their business models, and supports functionalities including sales and operations planning, supply chain visibility, transportation management, e-commerce fulfillment, and vendor managed inventory optimization. MPO can consolidate multiple tiers of supply chain planning and execution capabilities into a single interface, enabling companies to continuously align supply strategies with demand fulfillment. The vendor serves a wide variety of industries including healthcare, pharmaceuticals, industrial manufacturing, retail, and wholesale distribution. The MPO Platform can integrate with logistics services, warehouse management systems, and partner networks to provide real-time visibility to an organization's entire value chain, with scalability that can handle midmarket to enterprise-grade data workloads.

Recently, MPO launched capabilities for real-time supply chain analytics, which represent live production and distribution scenarios, enabling companies to improve their agility and response times to external disruptions. The vendor has also extended its AI-enabled functionalities, adding deep learning enhancements to its transportation and inventory planning solutions. As a result, MPO can continually optimize delivery routes, shipping configurations, and inventories to reduce costs while maintaining service levels. Nucleus expects that MPO's focus on connectivity between distribution channels, partner networks, and native planning capabilities will continue to drive value for its customers and help it maintain pace with the market's overall development trends.

CORE PROVIDERS

ALLOY

Alloy is a Core Provider in the 2021 SCP Technology Value Matrix. The vendor focuses on delivering supply chain planning capabilities for consumer goods customers, including functionalities for demand planning, seasonal and year-round allocation planning, sales management, and inventory optimization. The Alloy solution is flexible enough to accommodate multiple planning methodologies, allowing planners to seamlessly switch back and forth to analyze different tactical approaches. Alloy also enables customers to plan at their preferred level of granularity, ranging from multiple channels down to individual stock keeping units. The solution leverages AI-driven enhancements at multiple points in the planning process to help companies align operational goals with consumer trends such as promotions and seasonal demand.

Alloy has made heavy investments into native data integration capabilities, which allows customers to use information from a wide range of sources regardless of its format. The Alloy Data Platform has prebuilt connectors to retail, eCommerce, and distribution service providers in addition to enterprise application systems which facilitates quick implementations and accelerated payback periods. Alloy's forecasting capabilities leverage real-time sell-through data wherever possible and can simulate metrics for global item-location combinations to improve forecast accuracy and accelerate response times to external disruptions. As Alloy continues to innovate and develop optimization features within its platform, it will further establish itself as an ideal choice for consumer goods customers looking to unify their planning and operational strategies. Nucleus expects that Alloy will continue to keep pace with the market's overall developments in system usability which will drive long-term returns for both new and existing customers.

LLAMASOFT

LLamasoft is a Core Provider in the 2021 SCP Technology Value Matrix. The vendor is best known for supply chain design functionalities but also covers a large range of planning capabilities including sales and operations planning, inventory optimization, capacity management, analytics, and network strategy. LLamasoft can help organizations with supply chain design and planning across numerous verticals with specialized expertise in consumer-packaged goods, healthcare, manufacturing, retail, and wholesale distribution. The llama.ai Platform brings artificial intelligence and machine learning enhancements to the solution's existing supply chain models which can scale to handle complex enterprise-grade data workloads. Customers note that LLamasoft's cloud offerings are flexible enough to cover complex use cases through bespoke applications and connections to the Centralized Data Hub.

In November 2020, LLamasoft announced that it had been acquired by Coupa Software, an enterprise application vendor specializing in business spend management. The move will

complement LLamasoft's design-first approach to supply chain planning and add more layers to its holistic management of supply chain planning. LLamasoft customers will be able to leverage Coupa's sophisticated business spending functionalities to deliver deeper benefits, such as cost savings and distribution efficiency, across their supply chains. Nucleus expects that LLamasoft's unique attitude towards driving value to its customers through supply chain design, will continue to resonate among its target customer base even as competition tightens across the market.


QAD DYNASYS

QAD DynaSys is a Core Provider in the 2021 SCP Technology Value Matrix. The QAD DynaSys Digital Supply Chain Planning (DSCP) platform is delivered to customers through the cloud and supports functionalities including inventory optimization, sales and operations planning, demand sensing and planning, constraint management, and integrated business planning. QAD DynaSys can be deployed as a standalone solution or in connection with a wide range of ERP solutions, including Oracle, SAP, Microsoft, Infor, and the QAD Enterprise Platform. The vendor employs a vertical-specific go-to-market strategy with specialized capabilities for six primary industries: automotive, consumer products, distribution and wholesale, food and beverages, manufacturing, and life sciences. QAD DynaSys has invested heavily in extending the value proposition of migrating to cloud implementations with advanced capabilities including prescriptive analytics, what-if scenario planning, and common data models.

QAD DynaSys has continued its efforts to facilitate the migration process for its legacy customers with user experience enhancements and enhanced collaboration functionalities, although it has pledged to continue support for on-premises deployments. The vendor has historically served customers in Europe, the Middle East, and Africa, but has significantly expanded its reach in both the North American and Asia-Pacific markets. Functional development is still a top priority for the vendor with capabilities such as augmented supply and demand sensing and comprehensive standardization both featuring on the roadmap. Nucleus expects that QAD DynaSys's verticalization approach and commitment to promoting cloud functionalities and migrations will drive value for both existing and new customers in 2021 and beyond.

SMART SOFTWARE

Smart Software is a Core Provider in the 2021 SCP Technology Value Matrix. The vendor provides the Smart Inventory Planning & Optimization (IP&O) solution suite to its customers with capabilities for continuous and intermittent demand planning, inventory planning and optimization, and operational analytics. Smart IP&O is cloud-native and delivered on a multi-tenant, web-based platform hosted by Amazon Web Services. Smart Software has an



extensive partner ecosystem and provides seamless integrations with multiple ERP solutions including Microsoft Dynamics 365, NetSuite, and Epicor. The vendor also champions a “planning-as-a-service” approach, enabling customers to create bespoke algorithms to tackle difficult supply chain problems on their own terms.

Smart Software has continued to make inroads as the COVID-19 pandemic has renewed focus on making supply chains more efficient and resilient. The vendor’s partnership with V-LINE GROUP has helped expand Smart IP&O’s reach around the world for verticals including automotive, food and beverage, industrial equipment and products, process manufacturing, and durable goods. Smart Software represents a strong step for companies looking to take a more proactive approach to supply chain and inventory planning, in order to respond to external disruptions more productively. Nucleus expects Smart Software to keep pace with the overall market’s developments in usability and functionality, and deliver long-term value to its customers.