7-Step Guide to Supply Chain Planning Investments

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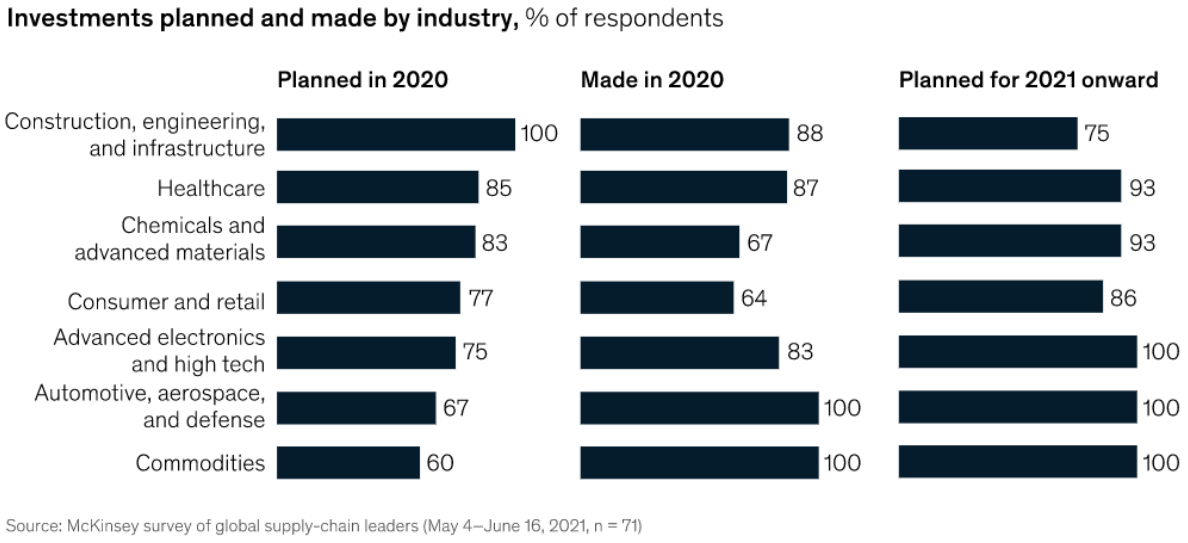
Introduction

As global businesses continue to battle supply delays, escalating fulfillment costs, talent shortages, and a barrage of other challenges, designing your supply chain to be agile and resilient is more crucial than ever. Smart technology investments are imperative to supply chain agility and protecting your customers and bottom line.

Supply chain technology providers are responding to the increased demand for digital. Supply chain technology start-ups raised $24.3 billion in venture funding[1] in the first three quarters of 2021, 58% more than the full-year total for 2020.

Across industries, most respondents have invested in digital supply-chain technologies since 2020 and plan to continue.



Source: McKinsey survey of global supply-chain leaders (May 4–June 16, 2021, n = 71)

McKinsey & Company

But how do you make smart supply chain planning investment decisions?

In this step-by-step guide, we've got you covered. We've collected expert advice from analysts, consultants, and technology teams to equip you with everything you need to navigate your own supply chain investment strategy.

[1] https://www.wsj.com/articles/investors-are-piling-into-supply-chain-technology-11640869382

Included in This Guide:

Part 1: Steps to Creating a Successful Supply Chain Investment Strategy

// Define your supply chain business performance goals

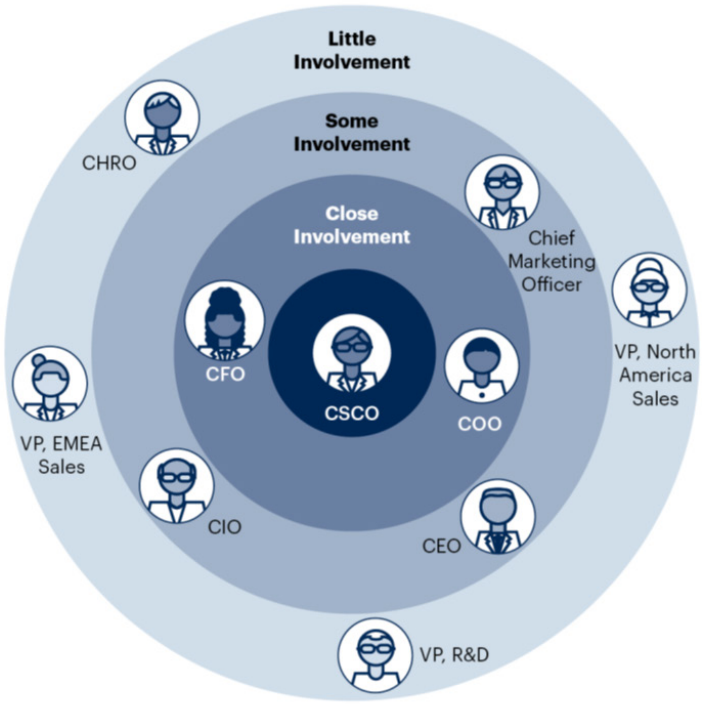
Supply chain volatility is here to stay. So how do you plan and set goals amid the chaos? Your supply chain must survive and thrive in the new reality and be ready to take on future challenges. In other words, how do you want to compete? Achieving agility and resilience will require strategic thinking and planning.

Are your business goals centered around growing revenue or maximizing profits? Operating at peak efficiency? How about attracting and retaining good talent for difficult-to-fill roles? Whatever your goals, they must be clearly defined before making investment decisions.

// Identify key stakeholders early in the process

To set business and performance goals, round up the troops early in the process. According to Gartner, competing priorities can cause supply chain leaders to overlook the importance of building a base of influential collaborators and supporters who can advocate for their work and execute the strategy.[2]

Sample Stakeholder Mapping Exercise



Source: Gartner
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The old adage "no man is an island" applies when it comes to planning and executing your supply chain agenda. Gartner recommends creating a list of internal stakeholders by identifying people and groups who are decision makers or influencers of supply chain's strategy, objectives, and progress. Don't forget individuals or groups below the C-level who may be adopters later on.

[2] Gartner: How Supply Chain Leaders Can Improve Relationships to Win Support and Influence Others. 28 October 2021 - Caroline Chumakov, John Johnson

// Pinpoint key obstacles and bottlenecks to making investments

Did you know that how companies approve investments can impede supply chain agility? Long, drawn-out processes are no longer effective, and many companies have abandoned the colossal and messy annual budgeting process in favor of monthly or quarterly sprints.

It's important to nail down your strategic goals prior to the budgeting process so you can align the proper resources to fund your investments. A decentralized budgeting process has the added benefit of flexibility, allowing you to take advantage of future opportunities instead of operating in reaction mode.

Besides the budgeting process, take stock of other obstacles that may impede your progress. For instance, are you constrained by insufficient working capital to fund your investment? Depending on the size and complexity of your business, create an investment business case that includes a cash flow analysis.

Part 2: Balancing Plug-and-Play Modular Solutions with One-Size-Fits-All

Monolithic ERP systems hit the big stage in the 1990s and have dominated the supply chain market for many years. While the appeal of a single system that can cover many different supply chain requirements certainly cannot be ignored, a single-suite vendor comes with its challenges.

A growing number of companies are radically changing their investment philosophy from "we will use a single vendor to solve all our supply chain problems" to using an ERP in conjunction with "plug-and-play" best-of-breed modular solutions that each address specific problems.

Which approach is best for today's supply chain requirements? According to the Lund Institute in Sweden, which has analyzed IT data processes for 40+ years, the answer is likely somewhere in the middle: "Fewer is better than many, but one might be too few."[3]

Here are a few discussion starters to help you find the right balance for your business:

- **First determine goals and objectives.** What are your business objectives? What goals will your planning technology support? Don't forget future requirements. Your planning capabilities should be deep enough to support your business as it grows and evolves. If your company has an advanced supply chain planning roadmap, you may want the deeper, dedicated coverage of a best-of-breed.

- **How strategic is supply chain planning to the vendor?** Some larger systems may say they do soup-to-nuts planning, but be sure to investigate how strategically important planning is relative to the vendor's other technologies. How much do they invest in planning R&D? How often do they release new features?

"Although enterprise resource planning (ERP) vendors offer numerous enterprise applications and claim that their integrated system is a superior solution, all modules in an ERP system are rarely best-of-breed." Gartner[4]

[3] https://www.supplychainbrain.com/blogs/1-think-tank/post/32357-the-great-it-debate-best-of-breed-or-single-suite
[4] https://www.gartner.com/en/information-technology/glossary/best-of-breed

Perspectives: Considering the Multi-Enterprise Supply Chain in Your Digital Planning Investment

Most people view supply chains as the physical logistics infrastructure (roads, airports, ports, trains, etc.) Industry influencers are suggesting this must now evolve to include a digital infrastructure. This infrastructure is an open supply chain platform hosted in the cloud where all the different players can collaboratively model, plan, monitor, and optimize their entire supply chains—from raw material to consumer delivery. Private and public organizations are already coalescing to make this happen.

"It's critical that any decision your company makes regarding digital transformation of the supply chain today needs to consider its evolution to a multi-enterprise supply chain platform."

Joseph Shamir, CEO, ToolsGroup

Flexible, focused planning solutions that integrate smoothly with other systems, and AI technologies—particularly machine learning—will become integral to the open supply chain platform. Companies are applying these technologies to improve tasks like seasonal demand planning and promotions planning, and they also help to plug the extreme labor and skills gaps in the supply chain.

Part 3: How Supply Chain Can Collaborate Effectively with IT on Supply Chain Software Evaluations

Supply chain investments are increasingly influencing overall information technology strategy, and hybrid solutions are challenging the monolithic approaches and investments of the past three decades. This means the office of the CIO has an even greater role in enabling supply chain agility.

Here are a few tips for how IT and supply chain can come together on technology decisions:

// Supply chains should engage IT early in sharing their business needs and objectives
"Supply chain leaders should clearly articulate the limitations of the current environment and platform," says Salman Adil, principal, Integrated Demand & Supply Planning at Chainalytics. "Because many IT organizations have objectives to minimize or reduce corporate applications, it's critical to share your business case for supply chain planning technology early with IT."

Those early discussions around business needs may be the perfect opportunity to weigh the pros and cons of software suites and best-of-breed solutions, including feature depth, integration and implementation cost, usability, time-to-value, and more.

// Prioritize data quality and accessibility
"Poor data is the number one limiting factor of any new software implementation, so be sure to consider how you will ensure high quality data and satisfy accessibility requirements for all key stakeholders," says Jeff Baker, principal, Integrated Demand & Supply Planning at Chainalytics. Data quality delays are also an impediment to achieving ROI in the projected time frame.

> **"CIOs need to be at the center of [supply chain technology] changes, ensuring new skills and technologies are adopted strategically and efficiently, enabling the results that CSCOs and line of business leaders seek."** EY report

// Map out the process first and include IT (and other stakeholders!) in the process mapping meetings
The process drives the business requirements and can help frame up the software selection as well. Including other stakeholder groups such as finance, sales, or even customers and suppliers is a great way to gain fresh perspectives.

// Ensure IT and the business participate in the decision process from start to selection
Have members of the business and IT teams participate in vendor demos, costing, negotiation, and benefits case creation. "All supply chain planning projects should be business-led and IT-supported," states Kelly Breitenbach, chief experience officer at Evolve Information Solutions. "That does mean the business gets to completely own the final selection–IT needs to own architecture decisions, sequencing, resourcing, implementation planning, and infrastructure needed to support the implementation."

"Real-time data ensures that your supply team has the proper information required to make good, reliable decisions. My advice is to automate as many data points as possible—the fewer spreadsheets the better."

Leon Roberge, CIO at Toshiba America Business Solutions[5]

Part 4: The Numbers: How Much Should You Invest?

How should you decide how much to invest in supply chain planning software? Here are some tips to get you started.

// Do thorough ROI projections

"Your investment decision should consider the investment ROI supported by your supply chain planning improvement objectives," advises Salman Adil, principal, Integrated Demand & Supply Planning at Chainalytics. "Areas of typical improvement include forecast performance, inventory reduction with improved service levels, increased productivity, and capacity utilization."

"Investment ultimately comes down to the payback period. There should be sufficient improvement–revenue increase, working capital decrease, cost decrease–to support a payback in less than 12 months," says Jeff Baker, principal, Integrated Demand & Supply Planning at Chainalytics.

// Conduct a proof of concept, assess results, then roll out more broadly

Like a pilot project, a proof of concept (POC) leverages your data, but it is conducted by the software vendor on their own software–before your purchasing decision. The POC allows you to model how the software will help you reach your goals without the time and expense of an actual implementation. Because the POC is a more cost-effective approach to gathering evidence, it should be conducted before the final selection is made.

[5] https://www.informationweek.com/strategic-cio/the-cios-role-in-maintaining-a-strong-supply-chain/a/d-id/1341363?

// Size of investment doesn't always mirror the size of the company

Of course, different size companies have different budgets and scope. "$500K-$1M is a reasonable investment in CAPEX/OPEX for a $1B+ retailer, and it's often necessary for fast-growing smaller companies and start-ups that have not invested in planning to take on this investment in order to support growth," says Kelly Breitenbach, chief experience officer at Evolve Information Solutions.

"When you don't have the ability to reliably plan sales, inventory, and margin, your operations can break down, you tie up too much cash with excess inventory and you miss opportunities to generate more margin."

// Consider beginning with a small investment with a fast payback

In some cases, it may be smart to start with a small but strategic project to get a quick win under your belt. An early success can bolster morale and stakeholder confidence for the next, bigger phases. Plus, you have the opportunity to work out process and communication kinks before they become larger issues.

// Carefully identify and measure KPIs

Margin improvement, inventory productivity, service improvement, and reduction in costs are a few good metrics to track and measure.

Part 5: The Technologies: Where Should You Invest?

> **"In the supply chain, at any point in time there are hundreds of competing initiatives and potential investment opportunities. It's the CSCO's job to invest in supply chain capabilities that will align with what the CEO wants the CSCO to prioritize."**
>
> **Noha Tohamy,** Gartner[6]

Supply chain planning solutions range from demand forecasting and multi-echelon inventory optimization to sales & operations planning. If you go with a vendor offering modular design, you can pick and choose which solutions you need to drive business outcomes.

Demand Planning and Forecasting automates the creation of demand plans and empowers demand collaboration, reducing forecast error and optimally deploying inventory.

Demand Sensing reduces demand variability by extracting signals out of noisy demand, provides earlier demand insights, and enables more accurate short-term plans and faster reactions to market changes.

Assortment Planning creates holistic, omnichannel assortments on a continuous basis, driving localized assortments and optimizing purchases to maximize margin.

Promotion Management and Pricing manages product lifecycle pricing from initial price setup through in-season promotions and end-of-life price markdowns, while evaluating financial impact and reacting quickly to market conditions.

Inventory Optimization factors in multiple planning variables and probabilities to generate an optimal multi-echelon inventory plan for every item in a portfolio to achieve target service levels.

Allocation enables demand-based, forward-looking strategic plans to effectively manage products, while adapting to shifts and adjusting allocations in real-time.

Replenishment creates highly accurate, time-phased automated replenishment plans that prevent lost sales, minimize costs, and enable optimal inventory levels.

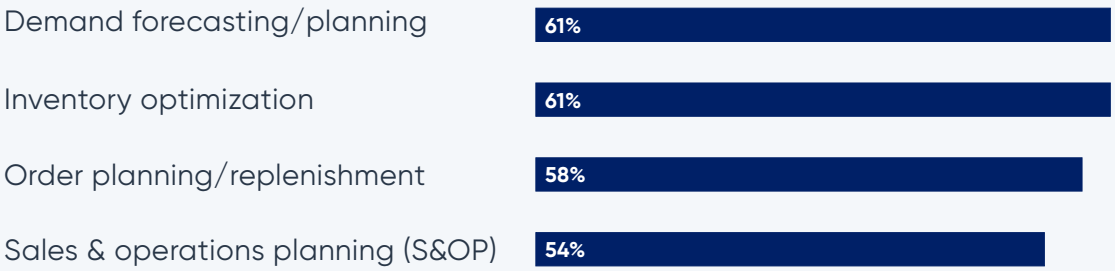
Production & Capacity Planning provides visibility, insight and control of the entire production process to improve efficiency and quality control, and service demand.

Sales & Operations Planning (S&OP) helps companies achieve better business outcomes by bridging the gap between strategic planning and operational execution.

[6] https://www.scmr.com/article/supply_chain_managers_must_balance_investments_in_nascent_evolving_and_matu

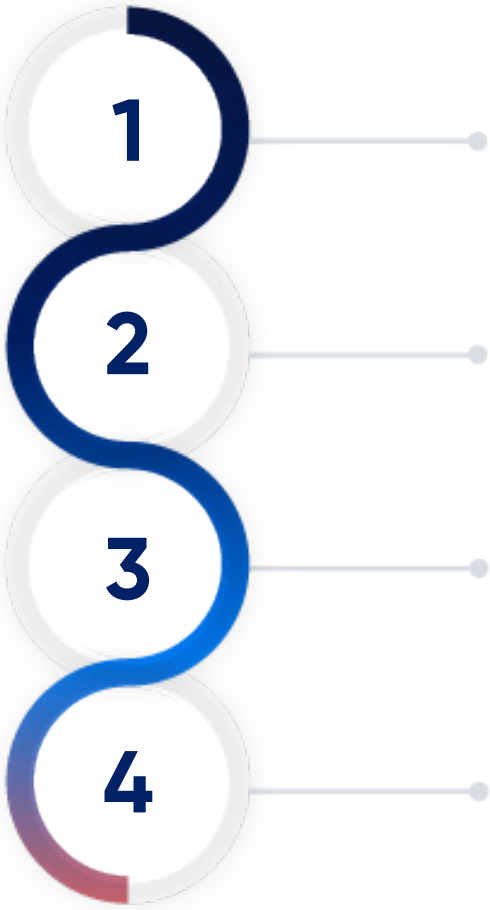
Adoption of Digital Technologies is Accelerating

Percentage of companies with project underway or planned[7]:



Part 6: Determining a Sequence for Implementing Supply Chain Planning Solutions

The truth is, there's no magic formula for ordering your supply chain planning solution implementations. It's all dependent on your company's specific requirements and circumstances. However, the most common path that unlocks the most value is:



Begin with demand planning and inventory optimization to realize quick wins and accelerate ROI for the project

Layer in replenishment/supply planning as phase 2 to further benefit realization

Add in incremental "advanced" planning functionality including machine learning, production capacity planning, S&OP, or promotions management. These solutions require inputs from forecasting and inventory policy/optimization

Branch out further by implementing and connecting other supply chain functions such as transportation management, warehouse management, or network optimization

[7] Survey-Digital Transformation in Supply Chain Planning 2021—CSCMP & ToolsGroup

"We often do demand planning and master planning simultaneously. The rationale is that a good demand signal and optimized master plan will alleviate a lot of the shorter-term scheduling issues. I'd recommend doing inventory optimization next, because a good demand signal and understanding of error and the ability to plan around that are crucial inputs for inventory planning." – Jeff Baker, principal, Integrated Demand & Supply Planning at Chainalytics

"Order of implementation depends on other projects that are on a roadmap. If you're doing any foundational work (ERP, core merchandising systems–item master, inventory master, sales audit) those should come first before implementing your supply chain planning solution. Unless there is an extreme pain point in service or inventory that can't wait for a protracted ERP implementation. It's also crucial to map out your processes first. From annual strategy through product transition management. Implement the systems in the same sequence." – Kelly Breitenbach, chief experience officer at Evolve Information Solutions

Part 7: Tips for Selecting the Right Vendor

// Recognize that the wrong vendor choice can have as much–or more–impact on your business as the right one

When it comes to achieving your business and performance goals, you obviously want to make the best choice possible, but don't ignore the flip side of the coin. The wrong vendor selection could be costly on many fronts, not the least of which are the financial implications. One recent example of how the wrong vendor choice can bring chaos to your supply chain is the botched ERP implementation of Mission Produce, a global leader in the worldwide avocado business.

The company faced a myriad of challenges with its new ERP implementation, which limited its ability to effectively manage its supply chain in the first quarter of 2022. Problems included lack of visibility into its on-hand inventory, a $4.1 million increase in operating costs[8], plus millions more spent trying to fix the problem.

[8] https://www.supplychaindive.com/news/Mission-Produce-ERP-implementation-operations-problems/620606/

// Be clear about goals and objectives

Just as in life, when it comes to selecting supply chain technology, failing to plan is planning to fail. Lay the groundwork early. What business challenges are you trying to solve? Depending on your objectives, you may be on the hunt for the right technology to help you improve certain areas or enhance performance that could help take the business to the next level. No matter what precipitated the need, be clear about how it benefits the business, potential ROI, and what KPIs will indicate success.

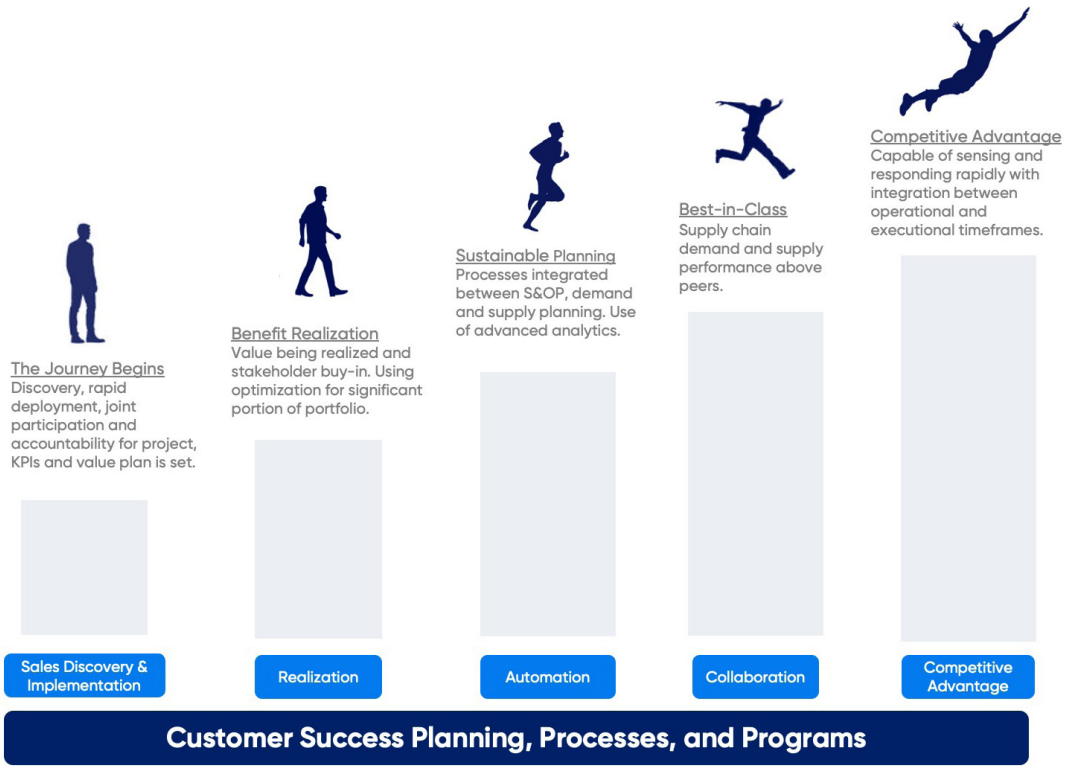
// Line up an executive sponsor

As referenced in Part I, identifying the right stakeholders and bringing them on board early in the process is laying the groundwork for success. Executive buy-in is critical but also having an executive sponsor who can help you resolve bottlenecks, including resistance to change is worth its weight in gold.

// Benchmark current and desired supply chain planning maturity

It's important to know your current maturity level and your future ambitions when assessing technology investments.

Supply Chain Planning Maturity Journey



// Identify current and future technology landscape

Most organizations already have technology in place to support different parts of the supply chain activities. Identify which current technologies are being used and how the future technology landscape is envisioned. The planning solution will need to coexist and integrate with a number of other solutions.

// Thoroughly evaluate each vendor on the short list

There is no shortage of vendors willing to sell you their software and tout all the bells and whistles, whether or not they align with your business goals. There are multiple steps to the vetting process, but ask yourself these crucial questions:

- Does the software have the core functionality you need to meet your current and future goals? How much additional development will be required, and at what cost?
- Does the vendor have the right teams in place to ensure a successful implementation?
- What about customer support?
- Is the vendor invested long-term in your success or are they mostly interested in making the sale?

> **"A well-structured proof of concept can generate stakeholder buy-in far better than even the most extensive features checklist."**
>
> **Henrik Sufke,** Global VP, Supply Chain Planning at Ecolab

// Run a software proof of concept

As we mentioned in Part 4, a software proof of concept (POC) is gaining in popularity with good reason. Conducting one can give you an inside view of whether a software will directly align with your business and provide stakeholder buy-in. Think of your POC as a test drive. You want to see whether the product can deliver.

// Check customer references

Reviewing a reference list of companies who have a profile similar to yours to assess "real world" experience is essential. Evaluate how vendor customers use the solution, the scale of the deployment, deployment size, enterprise size and level of maturity. This will help you gain a more balanced perspective.

+ Conclusion

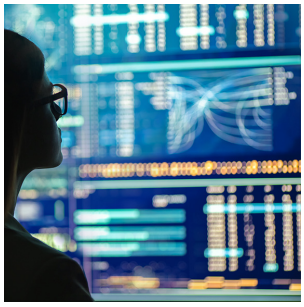
Making the right investment decisions amid growing supply chain complexity and volatility won't get any easier. But taking the right approach from the beginning by creating a dynamic team of stakeholders that includes decision makers, influencers, and adopters will go a long way toward helping you achieve your goals. Remember, a supply chain operating at peak efficiency has a stronger cash flow, improves risk mitigation, delivers for customers, and creates a more agile business.

+ Check out these additional resources for more tips and insights:

Video: Practical Strategies for Adapting to Demand and Supply Uncertainty

Ebook: Spreadsheets vs. Supply Chain Planning Software

Retailer ROI: The Business Case for a Comprehensive Retail Planning Solution



Blog: Why a Software Proof of Concept (POC) Is Better than an RFI

[6] How to Choose the Right Software Vendor for Your Business: https://track.g2.com/resources/software-vendor-evaluation

[7] How to Select Supply Chain Planning Software: https://www.toolsgroup.com/blog/how-to-select-supply-chain-planning-software/

[9] Gartner: Use Seven Key Criteria to Guide Your Supply Chain Planning Technology Vendor Selection Refreshed. Refreshed December 5, 2019; published June 22, 2018