Bridging the Gap:
How Connected Planning Can Accelerate External Manufacturing Networks

A Manufacturing Report by Nulogy
Supported by the Association for Supply Chain Management

Table of Contents

Executive Summary 1

Overview: The Rise of External Manufacturing 1

Survey Methodology and Demographics 2

The Strategic Role of EMs—and the Disconnect 2

Communication Methods: Legacy Tools in a Modern Ecosystem 3

The Visibility Gap: A Barrier to Performance 4

The Business Cost of Disconnected Planning 5

Connected Planning: Turning the Black Box into a Window 6

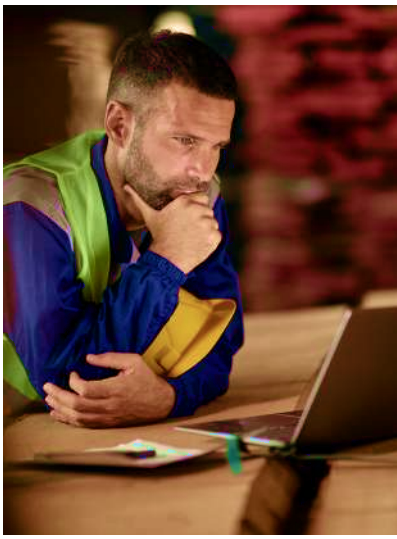
Building Toward a Digitally Orchestrated Ecosystem 7

Aggregate Supply Chain Maturity Levels 7

The Maturity Journey: Crawl, Walk, Run 8

Bridging the Gap Is No Longer Optional 9

Executive Summary



Today's manufacturing supply chains are more distributed, complex, and interdependent than ever before. For brand manufacturers, the need to coordinate planning efforts across internal and external networks has become a business-critical priority. Yet, many organizations still rely on outdated communication channels and fragmented planning systems when working with their external manufacturing partners (EMs).

In a recent survey conducted jointly by Nulogy and the Association for Supply Chain Management (ASCM), manufacturing professionals from across various industries shared their experiences collaborating with their EM partners. **This report reveals a critical contradiction:** while brands increasingly rely on external manufacturing partners (EMs) for substantial portions of both production and fulfillment their planning systems remain disconnected. This gap introduces risk—and opportunity. Connected planning is no longer optional; it's an operational imperative that requires intelligent, rapid, and scalable digital transformation efforts.

Overview: The Rise of External Manufacturing

Outsourcing in the manufacturing industry is not a new phenomenon—but its scale and strategic importance are rapidly evolving. Across a wide range of industries including consumer packaged goods (CPG), industrial manufacturing, and healthcare sectors, brands are increasingly relying on the expertise and services of specialized third-party manufacturers and packagers to drive planning flexibility, product innovation and speed-to-market, and cost efficiency.

According to research firm Supply Chain Insights, on average, 30% of a brand's product output is now manufactured externally. These external manufacturing partners, which include contract manufacturers, contract packagers, raw material providers, and value-added logistics providers, play an increasingly strategic role in enabling brands to deliver products to market faster and with greater accuracy and quality.

However, while brands have invested heavily in internal enterprise resource planning (ERP) systems and advanced planning systems (APS), they have often failed to extend the same level of digital maturity across their EM networks. **The result:** brand supply chain networks greatly rely on partners operating outside their four walls, yet collaborate using little-to-no real-time data visibility, weak digital connectivity, and communication methods better suited for the last century than the next.

Survey Methodology and Demographics

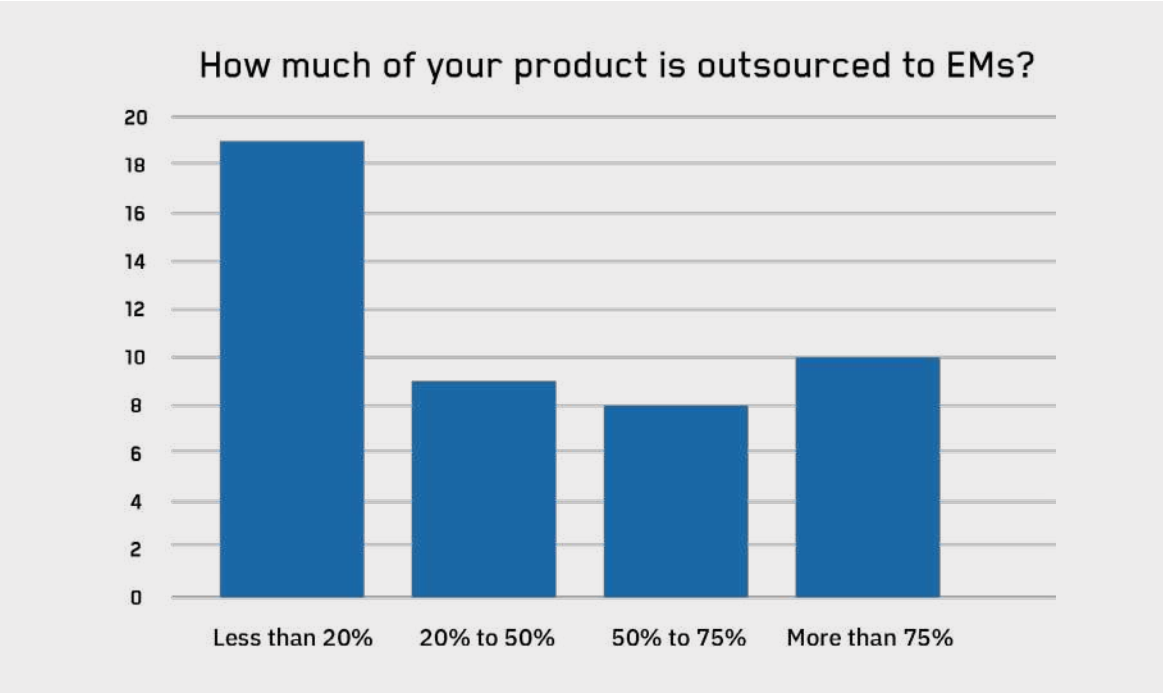
The Nulogy-ASCM Connected Planning Survey was conducted among 46 manufacturing professionals across a range of sectors. Participants responded to a mix of quantitative and qualitative questions focused on how they plan and collaborate with their external manufacturing partners.

An overview of the survey demographic:

- **Industry diversity:** Respondents came from a broad cross-section of manufacturing sectors, with notable representation from CPG, industrial manufacturing, and pharmaceuticals.
- **Organizational spread:** Survey participants represented a balanced distribution across frontline, managerial, and executive roles—providing a comprehensive view of planning challenges across levels.
- **Company size:** Most companies represented fell into the $1B–$4.9B revenue range, though all tiers were represented, reinforcing that connected planning is a challenge for companies large and small.

The Strategic Role of EMs—and the Disconnect

The first key insight from the survey is the diversity in outsourcing intensity. Roughly 40% of respondents reported that over half of their production is outsourced, while 41% outsource less than 20%. This distribution suggests that EM engagement strategies vary widely—some brands rely on a small group of specialized partners, while others operate complex networks of dozens of EMs.



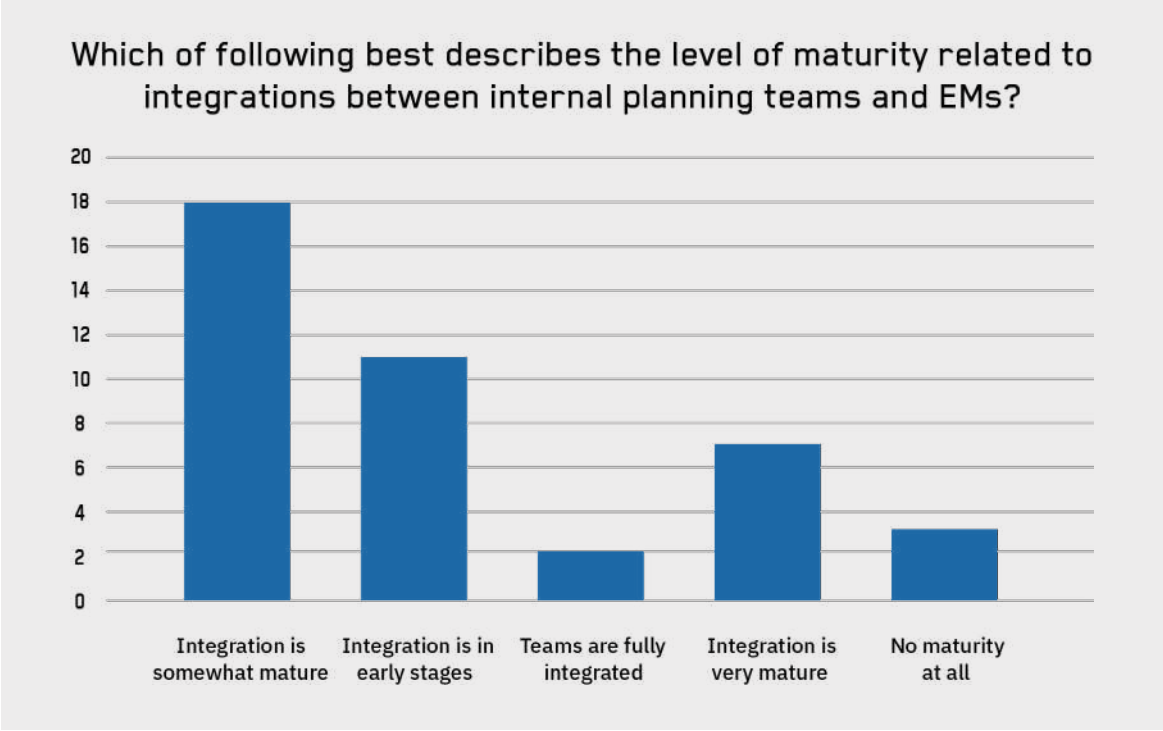
Even more telling: more than half of the respondents work with more than 10 EM partners. This level of complexity underscores the brand planning team's operational burden of managing so many relationships—and the risk posed by doing so with poor data visibility, lagging communication methods, and inadequate planning integration.

In short, EMs are no longer auxiliary participants in the manufacturing supply chain. They are core contributors to revenue, brand equity, and service performance. Yet, the digital infrastructure used to engage with them has not kept pace.

Communication Methods: Legacy Tools in a Modern Ecosystem

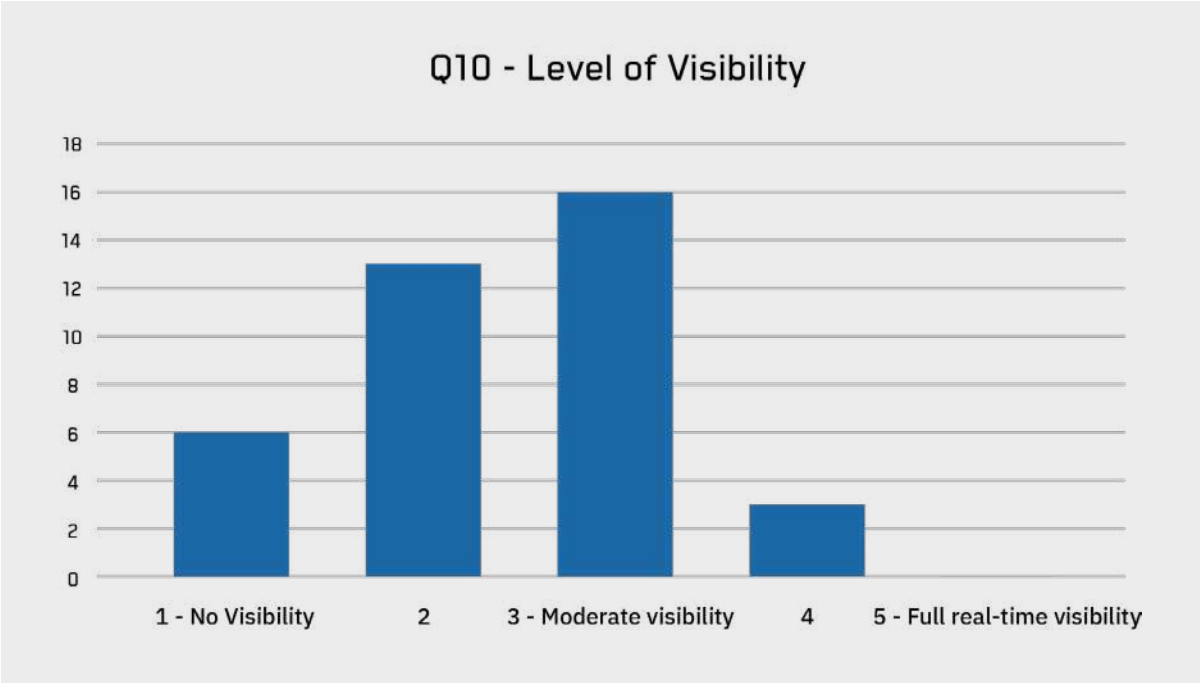
When asked about their primary communication channels with EMs, respondents painted a revealing picture of low maturity:

- The most common method—used by 25% of respondents—was a mix of email, phone calls, and meetings.
- Only 22% of respondents indicated that their EM integrations were "fully integrated" or "very mature."
- 40% rated their integration maturity as only "somewhat mature"—a lukewarm status that suggests basic connectivity but no deep, real-time data sharing between collaborating parties.



This reliance on manual, ad-hoc communication illustrates what Nulogy calls the **"Black Box" dilemma:** planners on the brand side all too often operate with incomplete information when it comes to allocating orders to their external manufacturing partners. Although they usually have high-fidelity internal planning data, all too often they are working with outdated inventory, capacity, and scheduling-related data from their EM partners. As a result, planners must rely on guesswork and reactive firefighting rather than proactive, data-driven collaboration to create realistic and actionable supply plans.

The Visibility Gap: A Barrier to Performance



Unsurprisingly, this maturity gap in EM connectivity translates into a visibility gap. The survey found:

- 50% of brand respondents report having limited or no visibility into their EMs' planning and production data.
- 80% identified "limited visibility" as a major challenge in external collaboration.
- 60% cited three or more recurring challenges when working with EMs—including:
  - Long lead times
  - Lack of flexibility
  - Limited agility to reprioritize
- 70% of respondents reported frequent disruptions tied to EM misalignments.

What's most concerning is the contradiction at the heart of these responses. Despite these clear pain points, 76% of respondents expressed confidence in the accuracy and timeliness of EM data—suggesting that many planning teams may not fully grasp the implications of working without real-time insights.

This overconfidence can lead to misaligned plans, delayed deliveries, and even lost revenue—outcomes confirmed by other findings in the survey.

The Business Cost of Disconnected Planning

Disruptions within EM networks are not simply operational annoyances—they carry serious financial and reputational risks.

> Raw material delays or component delays were not communicated, causing production to be pushed out or delayed. This caused an out of stock situation for a few weeks.
>
> – **SURVEY RESPONDENT**

When asked to identify the top risks stemming from EM misalignments, respondents cited the following:

1. **Stockouts**
2. **Production delays**
3. **Lost revenue**

But perhaps most compelling: over two-thirds of respondents cited three or more of these risks, indicating that these issues aren't isolated, but more systemic in nature.

> Underperforming assets delayed production and thus shipments for several days before we were alerted to the problem. This resulted in out-of-stocks to our customers as we could not adjust supply chain plans fast enough.
>
> – **SURVEY RESPONDENT**

Disconnected planning processes erode trust, reduce responsiveness, and create volatility in downstream fulfillment. In the competitive markets in which many brands operate, even a single disruption can result in missed promotional windows, lost shelf space, or damaged customer relationships.

Connected Planning: Turning the Black Box into a Window

So, what does a better future look like?

The answer lies in **Connected Planning**—a model in which brand-owned planning systems are enriched by real-time data from EM partners. Instead of relying on static data to inform order planning, connected planning enriched by real-time supplier data enables:

- Real-time order and inventory updates
- Dynamic responses to demand shifts
- Greater supply plan accuracy
- Improved agility in case of disruptions
- Stronger supplier relationships

> [One benefit is] better leverage of inventory for service parts support. If we see a shortage before it happens, we can mitigate it better.
>
> – **SURVEY RESPONDENT**

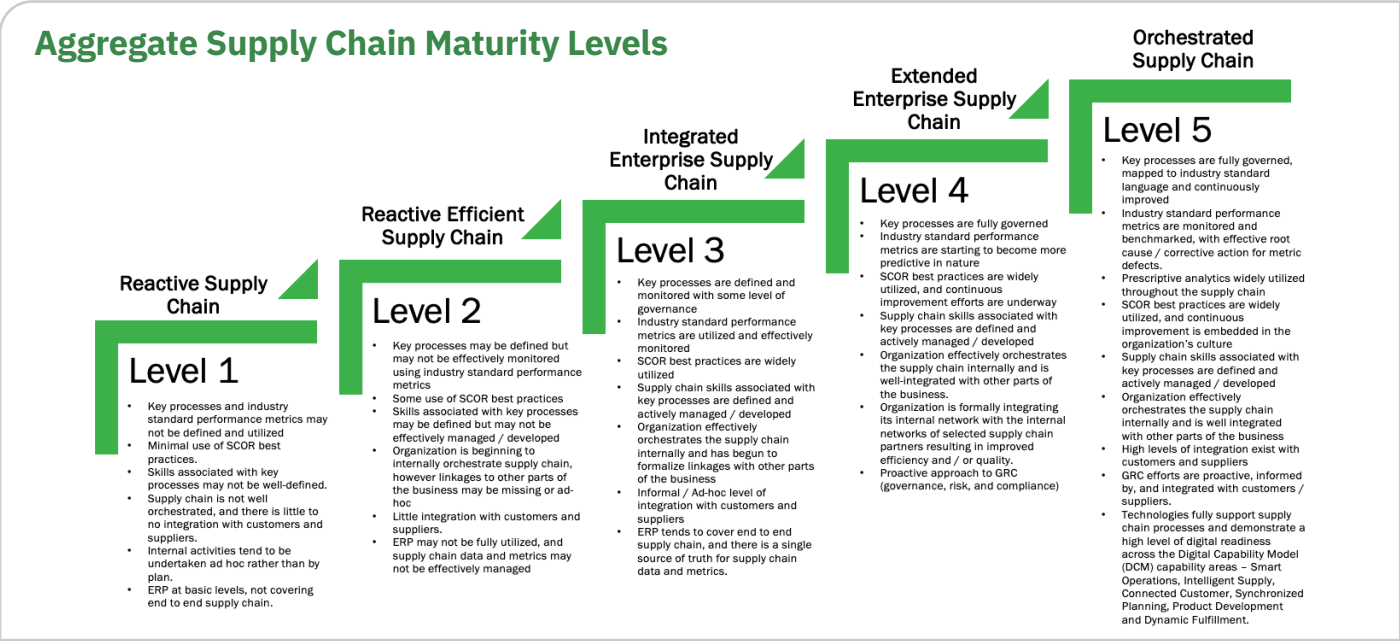
In the survey, 74% of respondents identified three or more planning functions that would benefit from real-time visibility into EM networks. These include:

- Production planning
- Inventory management
- Procurement
- Demand forecasting
- Customer service responsiveness

> [With greater real-time visibility] we could better inform downstream partners and make more timely decisions to avoid stock shortages.
>
> – **SURVEY RESPONDENT**

By integrating partner data directly into planning workflows, brands move from reactive firefighting to collaborative orchestration.

Building Toward a Digitally Orchestrated Ecosystem



The evolution of planning maturity follows a clear path. According to SCOR-based industry frameworks published by ASCM, technological maturity of supply chain networks often progresses through the following levels:

1. **Reactive Supply Chain** – Key processes and industry standard performance metrics may not be defined and utilized.
2. **Reactive Efficient Supply Chain** – Key processes may be defined but may not be effectively monitored using industry standard performance metrics.
3. **Integrated Enterprise Supply Chain** – Key processes are defined and monitored with some level of governance.
4. **Extended Enterprise Supply Chain** – Key processes are fully governed; industry standard performance metrics are starting to become more predictive in nature.
5. **Orchestrated Supply Chain** – Key processes are fully governed, mapped to industry standard language and continuously improved.

The final tier—**Orchestrated Supply Chain**—represents a future where external manufacturers are no longer "outside the system" but are active, visible nodes in a digitally connected network. These ecosystems are characterized by:

- Cloud-based collaboration platforms
- Shared data standards
- Predictive analytics and AI-driven decision-making
- Autonomous supply planning capabilities

This state is also known as virtual vertical integration. Dynamic, connected planning, enriched with real-time data from external partners, ensures that companies' planning efforts are always intelligent, informed, and synchronized.

Interested in assessing your supply chain maturity?
The ASCM Supply Chain Maturity Assessment is a free, SCOR-based assessment that provides a high-level view of supply chain maturity across the seven SCOR process areas. The assessment provides an excellent starting point for an organization's supply chain transformation journey and also helps to identify key capability deficiencies, and potential next steps to address deficient areas.

Scan the QR code to get started!

The Maturity Journey: Crawl, Walk, Run

Reaching orchestrated supply chain maturity isn't an overnight leap—it's a journey. Nulogy, which has worked with several brands to digitally transform their external manufacturing networks, identifies the stages of intelligence-led transformation as:

- **Diagnosis/Visualization:** Investing in visibility to understand current-state performance.
- **Description:** Tracking trends and describing emerging risks or patterns.
- **Prediction:** Using historical and real-time data to forecast future scenarios.
- **Prescription:** Enabling autonomous systems to recommend or even execute optimal actions.

Each stage requires investments in people, processes, and technology—but the payoff is agility, resilience, and competitive edge.

Bridging the Gap Is No Longer Optional

The Connected Planning Survey conducted by Nulogy and supported by ASCM reveals a clear pattern: external manufacturing is vital, but under-integrated. Many brand manufacturers operate with a dangerous level of uncertainty across their most critical external relationships. And while planners may feel confident in their status quo, the data tells a different story—one of visibility gaps, disrupted plans, and preventable business risk.

Yet, there are forward-thinking brand manufacturers that are taking significant steps to address the visibility gap.

Case Study: Brand Network Service Levels Improve by 200 Basis Points

A multinational CPG brand identified its external supply chain as a key area that would benefit from digital transformation, with the goal of improving responsiveness and agility. The brand took the following steps to launch the project:

1. Identify a technology partner that can pilot an implementation addressing the brand's exact needs, with future scalability in mind.
2. Identify key external manufacturing partners with a shared goal of continuous improvement against specific KPIs.
3. Implement at one site, identifying both challenges and opportunities throughout the process.
4. Measure performance against KPIs, reiterate and improve.
5. Use shared learnings to implement at additional sites faster and more effectively, speeding up scalability and return on value.

The results: the brand saw improvements in service, cost, quality, and agility (the four key indicators that they use to track their external partners) and service levels from their external network improved by 200 basis points due to increased responsiveness and closer collaboration in the planning process. Having full visibility of inventory and where everything sits in the external network has also allowed the brand to reduce inventory levels and free up working capital. Plus, their partners have seen greater efficiency, high throughputs, which drives lower costs overall for the brand.

The future belongs to brands that embrace **Connected Planning**—transforming their external partner networks from black boxes into collaborative ecosystems. Purpose-built, multi-enterprise collaboration platforms such as Nulogy make this transformation achievable, scalable, and sustainable.

It's time to turn confidence into capability, and capability into collaboration. Let's bridge the gap.

ABOUT NULOGY

Nulogy is a leading provider of supply chain solutions which empower brands and their external manufacturing partners to work smarter and better together. Nulogy's purpose-built software offers packaging and manufacturing providers the potential to save money, reduce waste, and grow in a fast-changing market.

Nulogy is built to optimize the operations of contract packagers, contract manufacturers, general manufacturers, raw & materials suppliers, and 3PLs—improving throughput, fulfillment, and customer satisfaction.

Learn more: Nulogy.com

ABOUT ASCM

The Association for Supply Chain Management (ASCM) is the global leader in supply chain organizational transformation, innovation and leadership. As the largest nonprofit association for supply chain, ASCM is an unbiased partner, connecting supply chain professionals and companies around the world to the newest thought leadership on all aspects of supply chain.

Learn more: ascm.org