

# Making Supplier Innovation Deliver to Manufacturers' Triple Bottom Line

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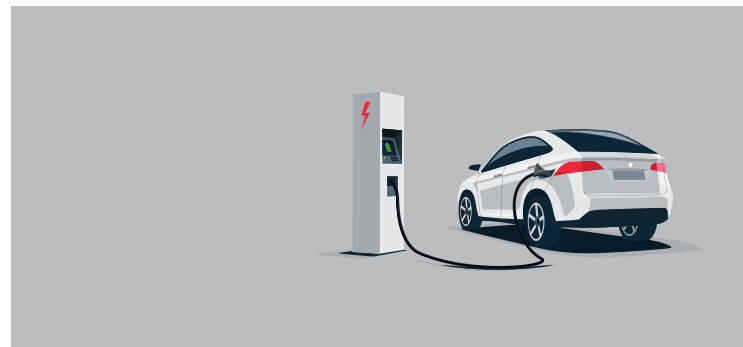
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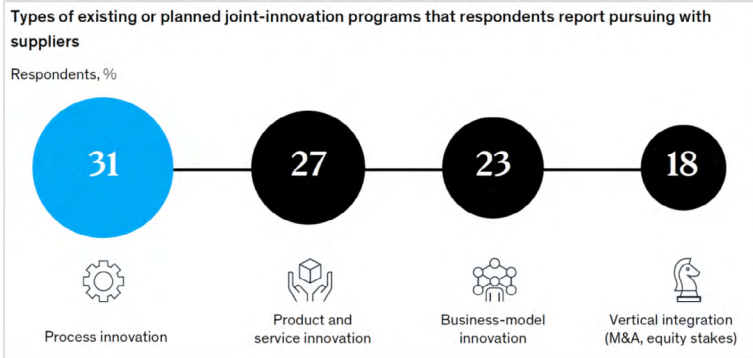
Necessity may be the mother of invention, but competition is the mother of innovation. Product lifecycles continue shortening while supply chains continue to get more complex and volatile in terms of supply assurance, pricing, and increasingly stringent compliance requirements from customers, regulators, and Non-Government Organizations (NGOs). Manufacturers need to innovate on multiple dimensions, and this innovation is increasingly *digital* (e.g., “smart” homes, cars, industrial machines, etc.) and *externally sourced* from exploding supplier ecosystems. As such, the need for managing supplier innovation has never been greater.

Supplier innovations are taking many forms: shrinking computer chips, sustainable materials/packaging, embedded digital monitoring, subscription-based service offerings, etc. These innovations are changing the overall design of the supply chains that make the products in order to deliver the “triple bottom benefits” of profits, people (social responsibility), and planet (environmental sustainability). Recent research<sup>1</sup> by McKinsey & Company on supplier collaboration found that firms that lacked innovation with suppliers underperformed industry average earnings before interest and taxes (EBIT) growth by 5.1% and that those who innovated regularly with suppliers outperformed the average by 4.9%. The firm also found that 88% of firms coming out of the COVID downturn have started or planned to start joint-innovation programs with suppliers in a myriad of forms as shown below.

<sup>1</sup> <https://www.mckinsey.com/business-functions/operations/our-insights/taking-supplier-collaboration-to-the-next-level>



*Automobiles have been getting increasingly digitized from control systems to driver interfaces and ultimately to the drivetrain itself and even the actual driving! Tesla is an example innovator not just because of product innovation of its cars and business model innovation in broader renewables (e.g., wall mounted home batteries), but also the process innovation of its “Gigafactories”, recharging network, consumer engagement, and focus on vertical integration to secure critical battery raw materials and advanced computer chips currently in short supply (which has plagued supply chains across multiple industries).*



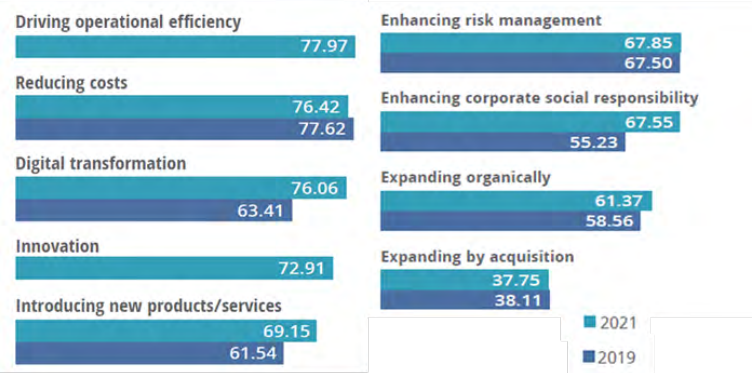
Source: 2020 Reimagining Procurement for the Next Normal Survey, McKinsey & Company

At Spend Matters, we also are seeing supplier innovation efforts occur across multiple use-cases that support priorities beyond just core product development. In this paper, we'll share these examples alongside some supporting insights from a Chief Procurement Officer research study that we co-authored with Deloitte Consulting, and we'll also share a supplier innovation model that we developed to highlight how supplier innovation, and underlying supplier management competencies, are critical to supporting and aligning these priorities.

### One True North (Value), but Many North Stars (Enterprise Objectives) to align to

Firms need to create value for their customers (and shareholders), and that translates to numerous internal enterprise initiatives (ranked as a "Strong Priority" or "Priority") as shown below based on responses from the 400 CPOs surveyed last year:

**Enterprise Priorities for the next 12 months**



Source: 2020 Reimagining Procurement for the Next Normal Survey, McKinsey & Company

Beyond the ever-present cost/efficiency mandate and the ubiquitous "digital transformation" catch-all, the focus on growth through new product development and business expansion is front-and-center. Even so, risk is pervasive (pandemic, inflation, climate change, etc.) and so is the emerging focus on ESG (Environment, Social and Governance) requirements that flow upstream to suppliers in the broader value chain.

The question then becomes how to execute on all these priorities. You can try going it alone, or you can leverage the power of supply markets and partner ecosystems. This is why supplier innovation (i.e., tapping suppliers and supply networks to help you win and achieve outcomes), and underlying Supplier Relationship Management (SRM), is becoming an increasingly critical and popular area of focus (especially since most firms are weak here compared to strategic sourcing). This is especially true in times of volatility when you should "keep your friends close, but keep your suppliers even closer!" In fact, the Deloitte CPO study showed that not only was supplier collaboration and information sharing the #1 rated risk mitigation strategy last year, but, is also viewed as the #2 rated value-creating procurement strategy in the upcoming year (digital transformation is #1 – and very complementary as we'll see in a moment).

### Supplier Innovation – A Call-to-Action and a Model for Alignment and Enablement

Supplier innovation is a multi-faceted topic, so we developed an organizing framework to highlight the trends we're seeing emerge in procurement organizations and also in the digital ecosystem supporting them (which is also a source of innovation!). It's shown below and we'll use it to highlight the top 10 supplier innovation areas that procurement organizations can focus on.

**SUPPLIER INNOVATION MODEL:**

HELPING TO SUPPORT AND ALIGN TO CRITICAL STAKEHOLDER OBJECTIVES



Source: Spend Matters, 2021

**Customer Value** is at the center of nearly every business strategy, with digital being the key enabler to translate customer/demand requirements to the needed innovations from the firm and its suppliers. This is the hard part of “digital procurement transformation”. In the Deloitte CPO study, 70% of CPOs included Source-to-Pay (S2P) digitization as part of this term, but only 26% were tapping digital innovations from the supply base and even less (21%) were supporting or leading strategic customer-facing value chain transformation efforts that integrated supplier innovation. Still, there are pragmatic steps to improve this engagement. For example, many industrial manufacturers are pursuing “Industry 4.0” strategies, along with their suppliers, to make digital twins of their products (e.g., using embedded sensors) in order to better monitor and predict performance, guide predictive maintenance, optimize service and replenishment, and feed data back to the firm and suppliers for ongoing innovation.

Some firms are even going a step forward to reshape an industry to their advantage and use supplier innovation as a key enabler. One example is “smart farming” where farm equipment manufacturers are partnering with suppliers in vision systems, GPS, drones, AI, robotics, and crop science

to create hyper localized seeding, fertilizing, and harvesting capabilities to improve yields and lower farmer costs and environmental waste. As an example, the agriculture equipment company AGCO Corp, that now also calls itself a “precision ag technology” firm, has created an open platform/ecosystem for digital farming products called Fuse that “supports AGCO’s brands and the aftermarket with a comprehensive and customizable suite of non-proprietary digital solutions, empowering farmers to make their individually best business decisions and thus maximize yields and profitability.” If those with the best supply chains win, then those with the best supplier ecosystems win even more!

The bottom line is that manufacturers must digitalize their extended supply chains and expand their product offerings to add more differentiated value, and procurement has a key role here by helping build and engage a broader ecosystem of innovative suppliers to help bring that “outside-in” innovation.

**Supplier Innovation Programs** seek to explicitly discover and commercialize innovation from your current suppliers and also from a broader ecosystem of suppliers in an “open innovation” (e.g., crowdsourcing) model. The best-known example is P&G’s “Connect and Develop” program spearheaded by its CEO nearly 20 years ago to source innovation outside of P&G’s own R&D organization. This program has been very successful and has led to products such as Swiffer Dusters, Olay Regenerist, Mr. Clean Magic Erasers, and others. Such programs can be led by corporate innovation, product, or R&D groups, and take different forms (innovation centers, incubators, spinoffs/JVS, open innovation events, etc.), with procurement supporting these efforts.

Procurement can also lead this initiative as a program, and related events such as supplier summits (we’ll talk about this process broader SRM process later), with equally impressive results. Ten years after P&G’s Connect-and-Develop program launched, P&G competitor Unilever stated that half of its innovation pipeline came from suppliers. Today, these programs have become standard fare for high-end CPG and Life Sciences firms, but other manufacturing firms can do this too. For example, Schneider Electric, a 175+ year old firm

has incorporated over 700 supplier innovations, and more interestingly, 75% of them are now coming from startups vs. strategic suppliers, which the CPO has said is inverted from five years earlier given the shift towards newer technologies.

It's important to realize that the sourcing of innovation from suppliers, like any sourcing process, can be supported through strong S2P techniques and tools, including supplier segmentation, supplier discovery, supplier engagement strategy, RFx functionality (e.g., using a "Request for Solution" RFS format), project portfolio tracking, contract management (e.g., for IP management contracts beyond basic NDAs), secure document management, etc., but they must be integrated with upstream PLM systems and downstream supply chain systems to truly enable next-level performance.

**Design for Supply** is a design approach that is part of a broader "Design for Excellence" (DFX) methodology that considers not just customer form-fit-function, but also supplier & supply chain capabilities (and risks) that are considered during design. When you design a product, you're also designing the supply chain (and the environmental impacts) to make it, and the years of design-for-lowest-price in low-cost countries has been a major factor in recent supply chain risk events and poor supply chain resiliency.

Designing for supplier innovation can bake in the 'open innovation' process discussed earlier, but it can also take more traditional forms. For example, many CPOs work intensively with supplier C-level leadership at 3-5 critical/strategic suppliers that can be contract manufacturers, systems suppliers, or highly specialized ones working on breakthrough innovations. These buyers who become "customers of choice" with innovative suppliers make these suppliers extensions of their own organizations and also enjoy the ability to focus supplier R&D and supply chain investments on their innovation efforts. In the automotive industry, Toyota and Honda have again taken the top spots as the OEMs with the best supplier "Working Relations Index" in a 20+ year study<sup>2</sup> that shows that their suppliers

invest more in technology with them than their peers. Not coincidentally, as the study shows, the suppliers also cite a higher degree of trust, more effective involvement in the buyers' product development process, and less perceived conflict between procurement and engineering objectives.

Procurement's alignment with engineering and product development teams is critical to engaging incumbent and/or new suppliers into the new product development and introduction (NPDI) process because although supplier-initiated ideas and inventions are great, they only become innovations when they're actually delivering value to customers. Embedding suppliers (and suppliers' suppliers!) into the NPDI process can certainly be accomplished through better concurrent engineering, rapid/agile development (to rapidly ingest and down-select proposed supplier innovations), and customer co-creation via phase-gated NPD processes where procurement helps bring in suppliers into the concept design process.

The automation of such supplier involvement in the NPDI process is a large topic, but it includes areas such as real-time design collaboration tools, PLM system integration, part libraries, supplier/part scoring (beyond costs to include quality, resilience, lead time, capacity, process capability, service, environmental impact/ratings, etc.), multi-tier cost modeling/forecasting, rapid eRFx execution, tooling sourcing/management, integration to direct materials sourcing execution, and then integrations to manufacturing engineering, ramp-up, product/program portfolio tracking, engineering change management, supply chain services management, service & warranty management, and end-of-life workflows.

**Supplier Sustainability** is a big area of innovation right now that focuses on reducing the environmental impact of suppliers' products and supply chains. Sustainable packaging with recycled, compostable, returnable, and sustainably sourced materials is becoming more common as suppliers are increasingly under pressure to improve their ESG performance (e.g., via regulations, certifications, and ratings entities). Although this may be driven by increasing ESG regulations and to improve brand perception (which

<sup>2</sup> <https://www.prnewswire.com/news-releases/toyota-honda-general-motors-finish-1-2-3-in-annual-working-relations-study-301297436.html>

improves enterprise value and the ability to attract talent), such efforts can reduce total costs through better material supply alternatives, and through supply chain operating costs (e.g., energy management programs from facilities suppliers applied internally or at supplier sites to reduce their costs that can partially be passed on to buyers).

The bigger prize though is customer-facing innovations that innovative (and maybe even diverse/disadvantaged) suppliers can help procurement improve its influence on revenue and brand. For example, Unilever [partnered](#) with two different suppliers to help it roll out washing detergent pods that contain a surfactant derived from CO2 discharged from industrial waste. There are similar efforts focused on hydrocarbon-eating microbes that create bio plastics, and these innovations are the perfect example of good product design AND supply chain design, especially when the supply chains are shortened/co-located (which helps with cost and quality), de-carbonized, and “circularized” in this example.

**Customer Engagement** allows supplier innovation to be brought to bear with customers in various ways beyond the NPDI process. Supplier partners can help provision equipment to customers as part of a managed service such as third-party logistics or MRO. However, for engineer-to-order manufacturers that compete for business via a customer quote management process, procurement and its supplier ecosystem partners have a crucial role to play in improving customer win rates. This involves bringing in a tightly-integrated team of supplier partners to bid jointly on business that not only brings in design innovations, but also brings highly accurate cost-to-serve quotes and delivery promise dates so that customers have confidence that you can not only innovate, but commercialize and execute! Being a ‘supplier of choice’ goes hand in hand with being a customer of choice. Both are “outside-in”, collaborative, and value-seeking – and they’re a powerful combination together.

**Integrated Supplier Management** involves integrating supplier innovation with other supplier management elements as well as sourcing, category management, and contract management. For example, the integration to supplier performance management involves measuring innovation explicitly on the supplier scorecard which in turn

is driven by supplier segmentation and category strategy, and then executed in strategic sourcing and ultimately the contract that should underpin the scorecard. Such a ‘balanced scorecard’ is important not only to align externally to suppliers, but also internally with engineering, operations, sales, IT and others – which is often harder than the external alignment! Finally, the supplier innovation activities should be aligned with customer innovation so that customers and suppliers are appropriately aligned in terms of technology road mapping, supply chain investments, and commercial arrangements.

Connecting supplier innovation to customer innovation is made easier when firms can model and manage multi-tier relationships and flows such as material, information, and cash. Then integrated contract management that flows from sell-side customer contracts to buy-side seller contracts can then flow down to sub-contractors. It can also mean sub-contracted operations and “buy-sell” multi-tier relationships like are seen in high tech supply chains. This results in the supporting business systems bringing in suppliers and sub-contractors as collaborators within the workflow, but with robust security for data protection.

**Supplier Risk & Compliance** can itself be risk to supplier innovation when innovative suppliers are bogged down by buyers who are burying them with one-size-fits-all supplier compliance documents. This can mean ignoring the real risk of those suppliers prioritizing other buyers and maybe even getting acquired by them! Smart buyers right-size their compliance requirements, automate them at both the data and document level, and reduce supplier pain and friction by adoptive industry standards. For example, a few progressive CPOs in the chemicals industry created Together for Sustainability, a consortium that developed a chemicals industry adaptation of the **Responsible Care®** ESG standards to use with suppliers. Together with other standards for quality management and risk management, manufacturers can standardize how these critical performance factors are baked into the sourcing and supply chain processes, which in turn improves quality (and lowers the total cost of poor quality) and consistency in inbound supply chain fulfillment and performance.

**Supply Chain Innovation** certainly includes innovative suppliers helping to digitally re-invent products and supply chains through Industry 4.0 technologies such as additive manufacturing, smart sensors, AI/ML, digital twins, augmented reality, and so on. But, the power of supply chain innovation is no different from supplier innovation, except larger. For example, consider the example of T-Mobile and the Open Networking Foundation

*Telecommunications firm T-Mobile helped form the [Open Networking Foundation](#) - an ecosystem of supply chain participants building the standards for an open source telecom infrastructure that prevents technical proprietary lock-in from mega suppliers. Needless to say, the effort is [attracting](#) a lot of supplier competition and collaboration leading to innovation! T-Mobile has also done the same with 5G with its [5G Open Innovation Lab](#) to help unlock supplier innovation through this ecosystem approach.*

**SRM Productivity** is essential to free up internal resources and supplier resources alike to focus on supplier innovation. Procurement organizations struggle to go deeper and drive more value from hundreds and thousands of suppliers through SRM when bogged down with non-tailored engagement and ad hoc islands of automation. Doing SRM properly involves segmentation, automation (and associate analytics and data management), self-service (to multiple internal stakeholders and suppliers), project/program collaboration, and integration of supplier innovation to other business areas. In the AGCO example, suppliers move from regular status to preferred and ultimately to the strategic partner level through incremental engagement in supplier innovation that starts with Supplier Idea Generation (SIG) and then elevates into deeper NPDI engagement. You simply can't get to strategic SRM and supplier innovations if you're bogged down with tactical SRM on spreadsheets and fielding supplier inquiries.

**Supporting Capabilities** are needed to manage the huge transformational change required:

- *top-down* (from the C-level to align board level desires for innovation down to the execution level where investments are needed)
- *bottom-up* working with suppliers to demonstrate empathy, elicit engagement, create wins, build new capabilities, and build trust.
- *side-to-side* to maximize and support supplier-customer engagement without a heavy hand that would stifle innovation
- *inside-out* to engage staff to seek this high ground that is both fun and meaningful, especially when environment and social improvements can be baked into the process

The journey can take years and requires new processes, capabilities, technologies, metrics, investments, and mindsets, as well as talent. The firms that are doing this well are attracting the best talent and the best suppliers – and if continuously tended to – will continue creating an innovation flywheel and generating higher economic value. CEOs want profitable growth driven by ongoing innovation, and as outlined in this paper, this innovation is coming from outside the four walls, but only for firms who have the processes, data, and supporting leadership to make it happen.

## Looking Forward

Supplier innovation should be viewed as a strategic business competency and not a procurement “program du jour”. For manufacturers though, supplier innovation isn’t just a strategic SRM process led by procurement, but, more importantly, it’s embedded in the NPDI process to serve external customers and drive sustainable growth and brand enhancement. Procurement’s alignment with engineering and product development teams (and with the supply chain organization given the “Design for Supply Chain” approach discussed earlier) is critical to engaging incumbent and/or new suppliers into the NPDI process. Supplier-initiated ideas and inventions are great, but they only become innovations when they’re actually delivering value to customers.

Embedding suppliers, and suppliers’ suppliers, into the NPDI process is enabled through concurrent engineering, rapid/agile development (to rapidly ingest and down-select proposed supplier innovations), and customer co-creation via phase-gated NPD processes where procurement helps bring suppliers into the concept design process. Orchestrating this process requires top-down support to break down process silos and data silos scattered across disparate systems. Integrated digital platforms and applications are of course critical to reduce friction and empower cross-functional and cross-enterprise teams, and it should be clear that supplier innovation can’t be tapped effectively without digital innovation, especially since the products and supply chains themselves are becoming digital.

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