Procurement redefined.

The New Competitive Edge: Supplier-Driven Innovation

How leading chemical companies are turning supplier collaboration into a core strategic capability.

The Collaboration Imperative:

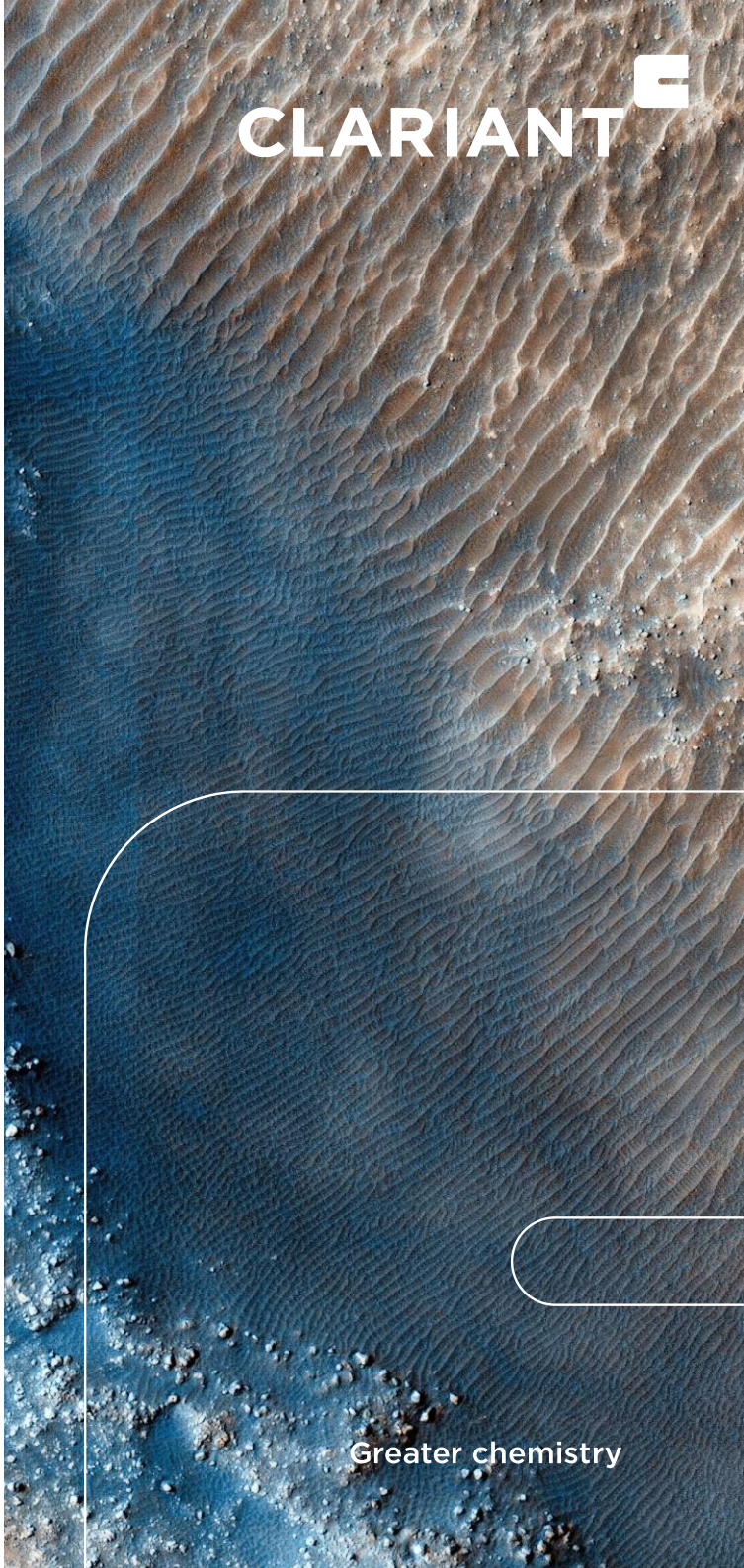
Why supplier-enabled innovation is becoming a strategic capability in the chemical sector.

Greater chemistry: partnering for sustainable Innovation in 2026 and beyond.

Can your organization link innovation ambitions to sustainable outcomes while managing risk and complexity throughout the value chain?

Insights from 275 industry leaders reveal why supplier-enabled collaboration is becoming a strategic capability, not a tactical initiative.

Led and convened by Clariant



Executive Summary

The Collaboration Imperative

The chemical sector is entering a period in which innovation cannot be delivered solely through internal capabilities. Sustainability, regulation, supply chain resilience, and application complexity are converging. Clariant's supplier-enabled innovation approach is designed to connect external capability with deep chemistry expertise, helping to accelerate practical solutions for customers, markets and society.

Organizations can no longer address these challenges in isolation. They require integrated approaches that connect sustainability, innovation, and value creation across the entire value chain. In this context, **Supplier-enabled collaboration is evolving from a tactical initiative into a strategic capability.**

Procurement is no longer defined solely by contracts and cost efficiency. It is becoming a driver of innovation and growth, shaping not only what companies buy, how sourcing decisions enable smarter, more resilient, and more sustainable value chains.

By aligning shared ambitions around low-carbon, renewable, and circular materials, companies can unlock new technologies, accelerate time to market, and strengthen their competitive differentiation.

Greater chemistry in practice

Supplier-enabled innovation is not simply a new way of managing procurement. For Clariant, it is a way of identifying, accelerating and scaling chemistry-led solutions that respond to some of the sector’s most urgent challenges.

These include lower-carbon building blocks, bio-based and renewable materials, PFAS-free alternatives, halogen-free flame retardants, circularity-enabling additives, advanced materials and application-led performance improvements. By connecting supplier capability with Clariant’s technical expertise, business unit priorities, and customer needs, collaboration leads to better chemistry, faster development, and more sustainable value.

What 275 Industry Leaders Told Us
This white paper presents findings from structured engagement with **275 delegates representing 128 companies** across EMEA, Americas, and APAC during 2024–2025. **Five Key Findings:**

41 %

Collaboration is now the primary innovation driver
41 % identify relationship-building and collaboration as their primary innovation driver — surpassing customer demand (24 %) and commercial return (19 %).

51 %

Execution barriers remain significant
51 % cite commercial acceptance as the biggest barrier. While appetite for collaboration is strong, translating intent into outcomes requires new governance frameworks.

48 %

Sustainability and innovation have converged
48 % prioritize carbon reduction and renewable materials for deeper collaboration. Organizations treating sustainability as separate from innovation risk strategic misalignment.

Regional approaches vary

- **EMEA: Regulation-driven** (32 % cite compliance vs. 24 % globally)
- **Americas:** Commercially driven (28 % cite ROI vs. 19 % globally)
- **APAC:** Speed-focused (47 % cite time-to-market vs. 31 % globally)

5 %

Digital adoption represents hidden risk
Only 5 % prioritize digitalization despite widespread discussion — a gap that may create future competitive differentiation.

What Effective Collaboration Requires:

Five enabling conditions emerged from our engagement

01

Clear prioritization of innovation focus areas

02

Structured engagement separating technical dialogue from commercial negotiation

03

Transparent governance with clear decision-making

04

Expanded measurement beyond cost/time to include resilience and sustainability

05

Flexible partnerships enabling shared value creation

Looking Ahead: 2026+

150

Billion USD
Circular economy projected to exceed by 2030

AI

and predictive R&D
enabling faster decision-making

Advanced materials expanding from USD 5.94 billion to

13.8

billion USD by 2035

Specialty chemicals are growing from USD 940.7 billion to

1.33

trillion USD in 2030

97.9

billion USD
IoT integration reached in 2025

Key insight: Innovation beyond 2026 will be shaped by convergence, not isolated breakthroughs.

The Path Forward

As the chemical sector navigates faster development cycles and rising regulatory expectations, **the ability to collaborate effectively will increasingly differentiate leaders from followers.**

The defining question: Can your organization connect innovation ambition with sustainability outcomes while managing risk and complexity across the value chain?

Supplier-enabled collaboration offers one proven approach — but its effectiveness depends on trust, transparency, and genuine commitment to mutual value creation.

Paper Content

Introduction
Greater chemistry:

Partnering for sustainable innovation in 2026 and beyond

The global chemical industry faces converging pressures: tightening sustainability regulations, supply-chain volatility, and rising customer expectations. In response, organizations are increasingly turning to supplier-enabled innovation as a strategic capability rather than a tactical initiative.

This white paper presents industry-led insights from structured global engagement with 275 delegates representing 128 companies across EMEA, Americas, and APAC during 2024–2025. Our purpose is to share aggregated findings that move the discussion beyond assumption toward evidence-based understanding of how collaboration is evolving in practice.

While Clariant convened this engagement as part of our ongoing work to understand supplier collaboration, the insights reflect aggregate input from across the supplier ecosystem rather than advocacy for a single approach. This paper captures a snapshot of how collaborative innovation is being approached today — and where it may be heading tomorrow.

»Supplier-enabled collaboration is evolving from a tactical initiative into a strategic capability.

The chemical sector's converging challenges — sustainability, supply-chain resilience, and innovation complexity — are driving this shift.«

Why Now

The Industry Inflection Point

The chemical sector has always faced challenges. What makes 2026 different is that three historically separate pressures are converging simultaneously — and at unprecedented speed.

First, innovation complexity is outpacing internal capabilities. Despite USD 40–85 billion in annual R&D investment across the industry, **41 % of respondents now identify relationship-building and collaboration as their primary innovation driver** — not internal R&D, not M&A, but collaboration.

Second, sustainability has moved from aspiration to mandate. 24 % of respondents cite sustainability regulation as a top market challenge, with compliance timelines accelerating across all major markets. The window for voluntary action is closing.

Third, supply chains have become a strategic vulnerability. 19 % identify supply-chain resilience and transparency as critical challenges — a direct result of recent disruptions that exposed the fragility of traditional supplier relationships.

This convergence creates an inflection point: Organizations can no longer address sustainability, resilience, and innovation as separate initiatives. They require integrated approaches that transcend organizational boundaries. Supplier-enabled collaboration isn't just an option — it's becoming a prerequisite for competitiveness.

To understand how organizations respond, we conducted structured global engagement with **275 delegates from 128 companies** across EMEA, Americas, and APAC during 2024–2025. The findings reveal both the opportunities and obstacles ahead.

»Our Supplier Innovation Day marks the beginning of an ambitious journey. By aligning our strategic goals with our supplier's creative capabilities, we're unlocking a fast track to mutual growth and delivering even greater innovation for our customers.«

Nicola Comiotto
Head of Procurement

The imperative to converge

Our engagement confirms what leading organizations already recognize: **innovation and sustainability are no longer separate agendas**. Regulatory pressure, customer expectations, and resource constraints are driving their convergence into a unified strategic priority.

41 % of respondents identified collaboration as their primary innovation driver, reflecting the reality that no single organization can address this complexity alone.

The most effective approaches simultaneously deliver:
- Commercial performance and regulatory compliance
- Environmental impact reduction and technical innovation
- Shared risk and accelerated development timelines

The implication: Organizations that continue treating sustainability as a compliance exercise separate from innovation will find themselves increasingly disadvantaged. The sector is shifting toward integrated approaches — and early movers are better positioned to navigate this complexity.

The power of partnership

Why Collaboration is Becoming Strategic

Across the chemical sector, collaboration with suppliers is evolving from a procurement function into a strategic innovation capability. Regulatory pressure, sustainability expectations, and supply-chain complexity are prompting organizations to fundamentally reassess how innovation is sourced, governed, and scaled.

The Industry Context
The specialty chemicals sector invests USD 40–85 billion annually in R&D. Yet engagement feedback reveals that investment alone is insufficient — how organizations innovate is increasingly as important as how much they invest. Participants consistently highlighted that many challenges facing the sector cannot be addressed effectively within organizational boundaries alone.

This reality is driving a shift from isolated R&D activity toward interconnected innovation ecosystems, where progress emerges through the combination of complementary capabilities.

Where supplier-enabled innovation is already taking shape

Across Clariant's business units, collaboration is helping to identify new opportunities in bio-based ingredients, renewable raw materials, circularity-enabling additives, PFAS-free solutions and safer, lighter materials for emerging mobility applications.

Clariant's collaboration model

Element	Role
Business Units	Define technical and market challenges
Suppliers	Bring innovation capability and specialist knowledge
Procurement	Orchestrates connection, governance and commercial structure
Customers and markets	Provide the real-world demand and application context

Procurement redefined.

Clariant's Approach in Practice
In response to these conditions, Clariant has developed a structured approach to supplier-enabled innovation that integrates supplier capabilities with defined innovation priorities and customer requirements. This approach emphasizes:

- **Alignment between innovation focus areas and supplier expertise**
- **Earlier technical engagement to assess feasibility and risk**
- **Clear governance around collaboration and decision-making**
- **Integrated sustainability considerations alongside commercial objectives**

The framework illustrated in **Figure 1** reflects the elements used to support this approach. It is presented as an engagement and operating construct, rather than as a benchmark or best-practice model.

Why This Matters
81 % of engaged suppliers view Clariant as a preferred innovation partner, reflecting the value of structured, transparent collaboration. As the sector faces mounting complexity, organizations that build genuine partnership capabilities — not just supplier relationships — will be better positioned to deliver innovation at the pace and scale required.

Figure 1

Framework used to structure supplier-enabled innovation engagement
Illustrating the elements applied to support structured collaboration with suppliers within Clariant's supplier-enabled innovation activity.

Performance indicator	Traditional industry approach	Clariant's differentiated approach
Innovation cycle time	Sequential development process with multiple approval gates	Parallel development streams with streamlined decision-making
Supplier innovation conversion	Limited to formal innovation partnerships	Systematic process for evaluating ideas from entire supplier base
Sustainability integration	Separate sustainability assessment after innovation development	Sustainability criteria embedded throughout innovation process
Cost efficiency	Focus on unit cost reduction	Total value optimization including lifecycle costs

Regional Innovation Differences

Innovation approaches vary significantly by region, shaped by local regulation, market dynamics, and customer expectations. Our engagement reveals that effective collaboration requires recognizing these differences rather than applying a single global model. This section summarizes regional patterns and their implications for supplier-enabled innovation.

»The future of chemical innovation is global in scope, but regional in execution.«

Regional distinctions

EMEA (Europe, Middle East, Africa)
EMEA innovation is strongly influenced by regulatory frameworks — REACH, the EU Green Deal, and sustainability reporting requirements — that shape both priorities and supplier capabilities.

Key drivers:
- 32 % cite regulatory compliance as primary driver (vs. 24 % globally)
- 56 % prioritize carbon reduction and renewables (vs. 48 % globally)
- Strong linkage between sustainability credentials and market access

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Opportunity areas:
- Bio-based and renewable raw materials with robust sustainability documentation
- Alternatives addressing emerging regulatory constraints (e.g., PFAS requirements)
- Materials with demonstrable lifecycle carbon footprint reductions
- Circular economy solutions incorporating end-of-life considerations

Americas (North America and Latin America)
The Americas emphasize commercial agility, speed of decision-making, and responsiveness to customer demand, with innovation closely linked to market opportunity and ROI.

Key drivers:
- 28 % cite commercial return as primary driver (vs. 19 % globally)
- 31 % cite customer demand (vs. 24 % globally)
- Speed to market frequently referenced as competitive advantage

North America:
- Greater use of digital tools in collaboration
- Strong emphasis on IP clarity and commercial terms
- Access to venture and startup ecosystems supporting partnership models

Latin America:
- Manufacturing flexibility and scale-up capability
- Focus on cost-effective innovation to improve quality standards
- Increasing sustainability attention driven by multinational customer requirements

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Opportunity areas:
- Digital collaboration and AI-supported R&D tools
- Agile development and rapid prototyping approaches
- Manufacturing optimization and scalable production models

Procurement redefined.

Regional distinctions

APAC (Asia-Pacific)
APAC distinguishes itself through speed, scale, and material science capability, with suppliers emphasizing rapid progression from concept to production.

Key Drivers:
- 47 % cite speed to market as primary advantage (vs. 31 % globally)
- Strong capability in scaling from laboratory to commercial production
- Depth of expertise in polymer chemistry, catalysis, and advanced materials
- Increasing focus on accessing European and North American markets

China:
Large-scale integrated manufacturing
Growing R&D capability and IP generation
Government support for green chemistry and circular economy initiatives
Increasing focus on higher-value specialty products

India:
Strength in process chemistry and cost optimization
Expanding activity in bio-based and sustainable materials
Strong technical talent base and R&D infrastructure
Strategic position for serving Middle East, Africa, and APAC markets

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Geopolitical considerations:
APAC suppliers show increasing interest in diversification, influenced by trade dynamics, regulatory expectations in export markets, and supply-chain resilience considerations.

Organizing supplier-enabled innovation across regions
The challenge isn't finding ideas — it's translating regional insights into scalable outcomes while balancing global alignment with local responsiveness. This requires operating models that separate technical engagement, commercial evaluation, and strategic governance with clear handovers between stages.

Clariant has implemented structured regional governance to address these challenges, ensuring consistent capture, transparent assessment, and defined decision-making processes. This approach reflects common sector challenges: clarity of ownership, cross-functional coordination, and continuity between ideation and execution. Further details are provided in **Appendix 1**.

»Having examined how collaboration approaches vary by region, we now explore how these patterns manifest in specific business verticals.«

Vertical Innovation Spotlights (Illustrative)

To complement the sector-wide insights presented in this paper, selected vertical examples are included to illustrate how supplier-enabled innovation priorities manifest in different business contexts. These spotlights are intended to provide **illustrative context**, not comprehensive coverage of individual business units.

Two such examples are Business Units — **Care Chemicals** and **Adsorbents & Additives**, both of which operate in markets where sustainability, regulatory requirements, performance expectations, and supply-chain resilience increasingly shape innovation activity.

Care Chemicals operates across consumer and industrial applications where innovation increasingly focuses on bio-based materials, multifunctional formulation ingredients, and lower-carbon building blocks. Engagement feedback indicates strong alignment between these priorities and supplier investment intent, with **82 % of engaged suppliers reporting plans to invest in R&D focused on sustainable inputs by 2026**.

Adsorbents & Additives serves applications where material efficiency, durability, and regulatory compliance are critical. Innovation activity within this vertical is focused on areas such as PFAS-free solutions, renewable and waste-derived materials, halogen-free flame retardants, and additives that enable circularity and resource efficiency.

Together, these examples illustrate how supplier-enabled innovation themes identified at an industry level are being translated into application-specific focus areas across different parts of the chemical value chain. Further detail is provided in **Appendix 2.1** for readers seeking deeper vertical-specific insight.

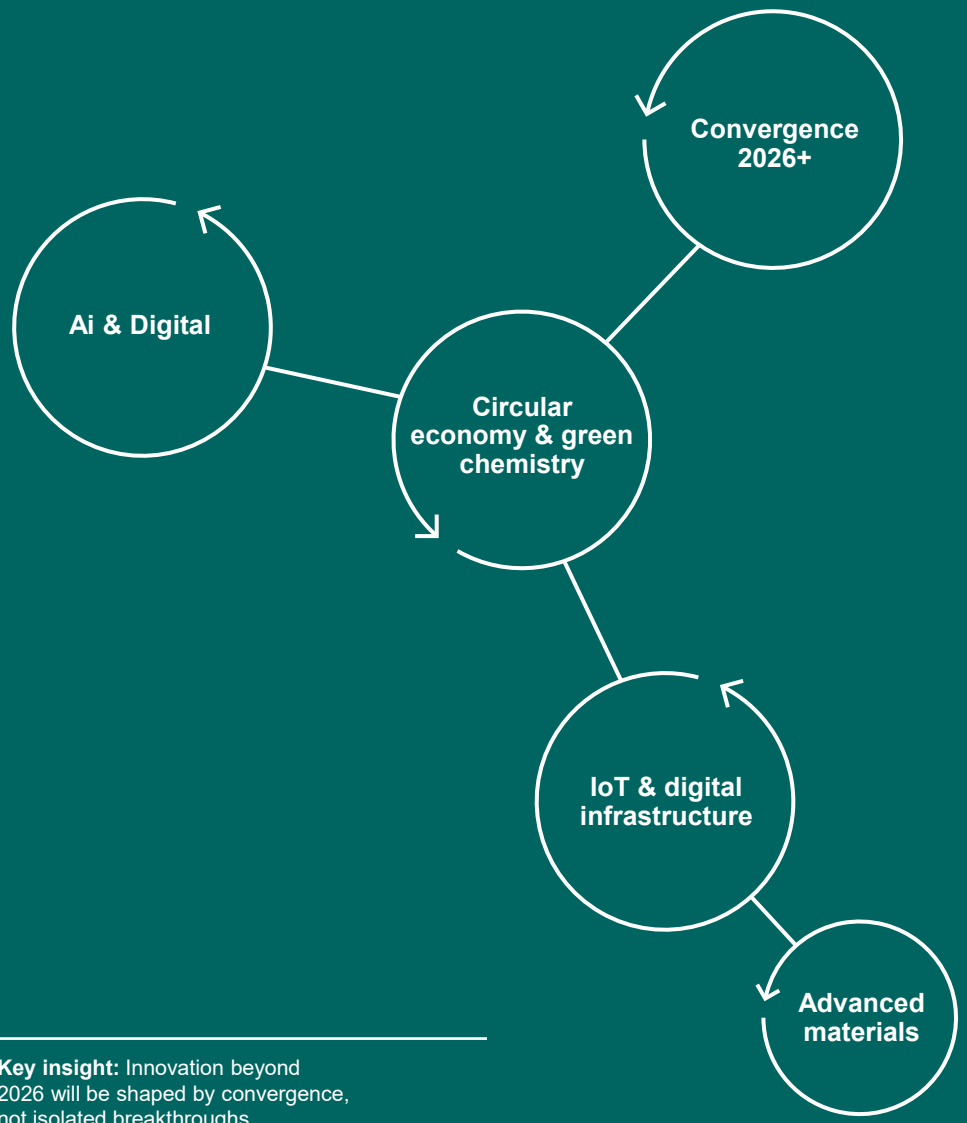
»These vertical examples demonstrate current collaboration in practice. Looking ahead, five emerging trends will shape the next phase of supplier-enabled innovation.«

Looking Ahead — Innovation 2026+

Emerging Industry Signals Shaping the Next Phase of Innovation

The chemical sector is entering a phase where innovation is increasingly shaped by **interconnected forces** rather than isolated drivers. Digital capability, sustainability expectations, and application complexity are converging, creating new demands on how innovation is prioritized, funded, and delivered.

While adoption levels and organizational readiness vary significantly across regions, five consistent themes emerge when stakeholders reflect on innovation priorities beyond the mid-2020s. These represent directional signals indicating where innovation effort and investment are increasingly concentrated — not forecasts or definitive outcomes.



Key insight: Innovation beyond 2026 will be shaped by convergence, not isolated breakthroughs.

1. Specialty Chemicals and Application-Led Growth

The specialty chemicals segment is expected to continue **significantly outpacing broader chemical market growth** through the end of the decade, driven by emerging high-value applications.
Growth drivers include:
- Clean energy and energy transition technologies
- Semiconductor and electronics manufacturing
- Electric vehicle and battery supply chains

These markets place heightened emphasis on high-performance, application-specific solutions, reinforcing the importance of deep technical expertise and close collaboration between suppliers, manufacturers, and customers throughout the innovation lifecycle.

»Specialty growth is being driven by application depth, not volume.«

2. Circular Economy and Green Chemistry

Circularity continues to emerge as a defining innovation theme across the chemical industry. **Industry projections indicate substantial growth in circular economy approaches**, with most firms now embedding circularity principles into product or process development.
Key focus areas include:
- Transition towards regenerative chemistry and bio-based systems
- Greater emphasis on renewable feedstocks and material reuse
- Transparent, circular supply chains

Engagement feedback reinforces that circularity is no longer viewed as a discrete sustainability initiative - it's increasingly embedded within innovation design, influencing material selection, process development, and collaboration models from early-stage ideation onwards.

»Circularity is no longer an initiative; it is becoming a design principle.«

3. Advanced Materials and Nanotechnology

Advances in materials science, including nanoscale materials, are increasingly cited as long-term innovation enablers. **Industry forecasts indicate strong growth potential** for advanced materials applications over the next decade.
Stakeholders associate these developments with:
- Reduced energy consumption and emissions
- Enhanced material properties and functional performance
- New application possibilities across industrial and consumer markets

Adoption remains highly application-specific, with regulatory, technical, and commercial considerations influencing both development timelines and market uptake.

4. Digitalization and IoT Integration

Digital connectivity, sensors, and data-enabled systems are increasingly recognized as enablers of operational transparency and efficiency. **Industry analysts project substantial growth in chemical IoT adoption** over the coming years, supported by:
- Real-time monitoring of production assets
- Sensors and digital twins to optimize performance
- Improved visibility across supply chains and operations

Despite this potential, digitalization is not yet widely prioritized as a strategic challenge, suggesting a gap between available capability and practical adoption. This gap may represent an area where future competitive differentiation emerges.

5. AI Integration and Predictive R&D

Artificial intelligence and advanced analytics are increasingly viewed as tools that can support more efficient, informed, and responsive innovation processes. Key applications include:

- Optimizing processes to improve yield consistency and product quality
- Enhancing forecasting across production and development cycles
- Reducing downtime and emissions through predictive maintenance
- Enabling data-led collaboration across complex, distributed value chains

Although AI adoption remains uneven — recall that only 5 % currently prioritize digitalization as a strategic challenge — there is growing recognition that these tools can shorten development timelines and improve decision quality, particularly in R&D-intensive environments where experimentation is costly.

»Digital capability, sustainability, and application complexity are increasingly inseparable.«

Interpreting the Outlook

These signals suggest that innovation beyond 2026 will be characterized by:

- Continued growth of specialized, application-led solutions
- Deeper embedding of sustainability and circularity into innovation design
- Increasing reliance on collaboration to manage complexity, risk, and speed
- Greater integration of digital and data-driven tools into innovation processes

»The pace of innovation will vary, but the direction is becoming clearer.«

Engagement feedback consistently reinforces that innovation pathways are unlikely to converge on a single approach. Instead, shared learning, ecosystem collaboration, and continued cross-industry dialogue are increasingly viewed as essential to navigating this complexity.

»Innovation beyond 2026 will be shaped by convergence, not isolated breakthroughs.«

Conclusion

Greater Chemistry in Practice: From Insight to Action

This white paper has explored how supplier-enabled collaboration is evolving from a tactical initiative into a structural capability within the chemical sector. The evidence is clear: organizations are fundamentally reassessing how they work with suppliers in response to business growth, sustainability pressure, supply-chain volatility, and technical complexity.

What Effective Collaboration Requires
Our engagement identified five enabling conditions for collaboration at scale:

- Clear prioritization of innovation focus areas aligned with business strategy
- Structured engagement models that separate technical dialogue from commercial negotiation
- Transparent governance with clear decision-making processes and accountability
- Expanded measurement frameworks beyond cost and time to include resilience and sustainability outcomes
- Flexible partnership models that enable shared value creation and appropriate IP arrangements

The Path Forward
As the chemical sector navigates faster development cycles, rising regulatory expectations, and greater value-chain interdependence, the ability to collaborate effectively will increasingly differentiate leaders from followers.

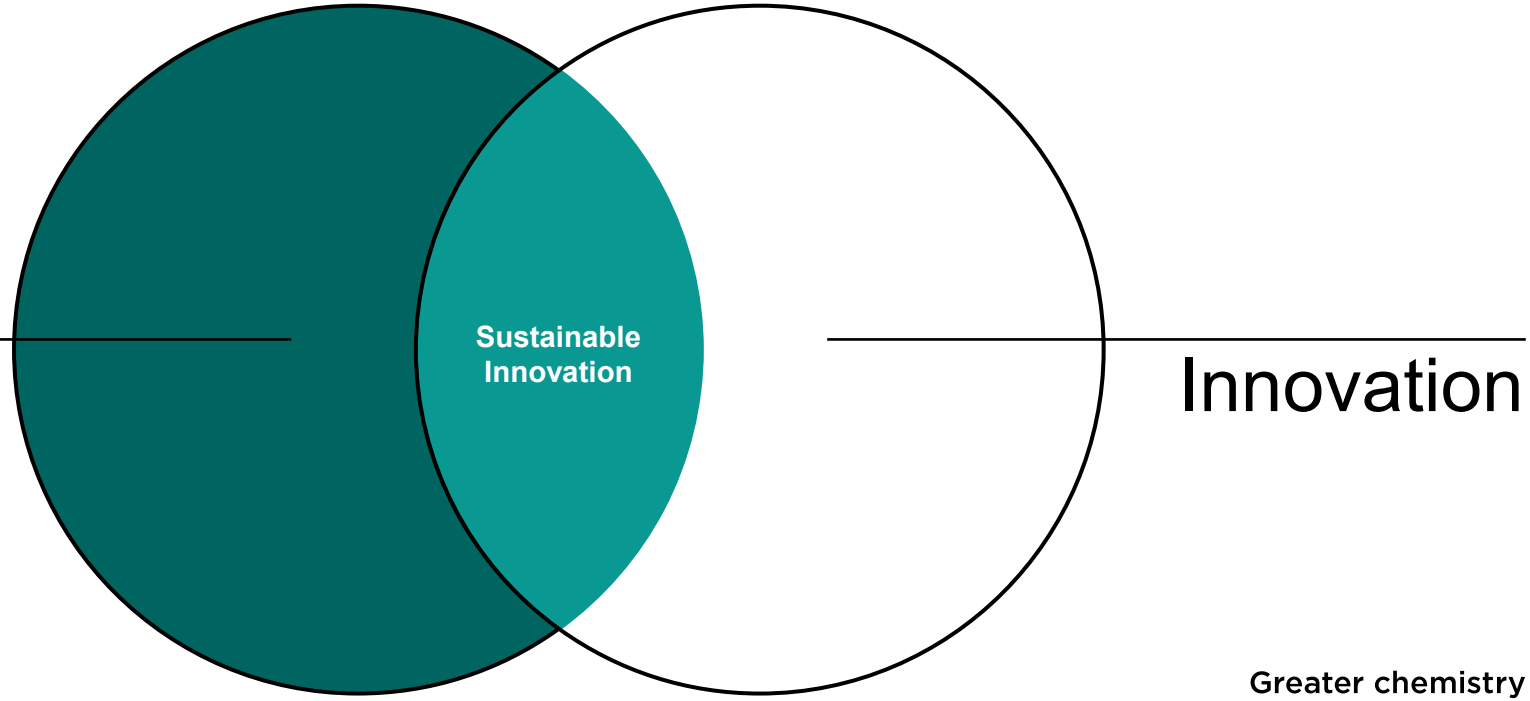
The findings in this paper represent a snapshot of current practice, not a definitive roadmap. They point to opportunities for shared learning as organizations address similar challenges from different starting positions.

Procurement redefined.

The defining question for 2026 and beyond: Can your organization connect innovation ambition with sustainability outcomes while managing risk and complexity across the value chain? Supplier-enabled collaboration offers one proven approach — but its effectiveness depends on trust, transparency, and genuine commitment to mutual value creation.

Additional organizational context relating to how Clariant structures and applies supplier-enabled innovation is provided in **Appendix 1.**

Sustainable Innovation
Creating Shared Value



»SEI succeeds when three forces come together: our Business Units define the challenges, our suppliers bring innovation capabilities, and Procurement orchestrates the connection. Together, we're proving that procurement can be a driver of growth, a champion of sustainability, and a true strategic partner.«

Klaus Brychcy
Head of Supplier Innovation and Sustainability

Procurement redefined.

Sustainable Innovation
Creating Shared Value

Sustainability
Environmental and Social Impact

- Regulatory compliance (24 %)
- Carbon footprint reduction (24 %)
- Energy efficiency (13 %)
- Supply chain transparency
- Waste reduction
- Environmental protection

Sustainable Innovation

- Bio-based | renewable materials (24 %)
- Circular economy solutions (14 %)
- Renewable alternatives (49 %)
- Collaborative partnerships (41 %)
- Recycling technology (35 %)

Innovation
Driving Business Growth

- Customer-driven development (24 %)
- Digital collaboration platforms
- Time-To-Market efficiency
- Commercial return (19 %)
- New market expansion
- Technology acceptance

The next phase of chemical innovation will not be shaped by isolated breakthroughs alone, but by the ability to connect expertise across the value chain. For Clariant, supplier-enabled innovation is one way to turn that connection into greater chemistry in practice.

Appendix 1

Operationalizing supplier-enabled innovation across regions

Purpose of this appendix
This appendix provides additional context on **how supplier-enabled innovation is structured in practice** within a global operating environment. It is included to support readers who are interested in the organizational considerations associated with managing collaborative innovation across regions. The content is descriptive and illustrative and is not intended as a prescriptive or benchmark model.

Methodology Note
Our engagement approach included:
- Pre-event surveys issued to 300+ supplier organizations capturing baseline views on innovation priorities and collaboration challenges
- Interactive workshops during regional supplier events with 64 % attendance rate
- Post-event surveys achieving 46 % response rate for quantitative validation
- Follow-up interviews with selected participants for qualitative depth

Addressing common operational challenges
Across the chemical sector, supplier engagement feedback frequently references challenges such as:
- Fragmentation of responsibility between technical and commercial functions
- Loss of momentum between early-stage ideation and later-stage execution
- Inconsistent handover between regional activity and global decision-making

To respond to these challenges, Clariant has implemented an operating structure intended to separate **early innovation engagement**, **commercial evaluation**, and **strategic governance**, while maintaining coordination between each stage.

Roles as applied within the operating model
Procurement Innovation Managers (regional focus)
Innovation Managers act as the primary interface for early-stage supplier engagement within regional markets. Their responsibilities include:
- Identifying and exploring supplier innovation capabilities
- Organizing regional engagement activities and workshops
- Conducting initial technical and strategic assessments
- Building working relationships with supplier key functions (e.g., NBD, Marketing, Application, R&D)
- Progressing qualified opportunities into formal evaluation pathways

This role reflects a broader industry trend toward **earlier, technically led supplier engagement**, distinct from commercial negotiation.

Appendix 1 – Operationalizing supplier-enabled innovation across regions

Procurement Managers (commercial focus)
Procurement Managers become involved once opportunities have progressed beyond initial technical assessment.
Their responsibilities include:

- Leading commercial evaluation and contractual alignment
- Supporting implementation pathways following governance approval
- Ensuring commercial terms support innovation delivery and risk management

This separation of roles is intended to reduce tension between exploratory innovation dialogue and commercial negotiation.

Evaluation and governance structures
An Evaluation Committee provides strategic oversight by:

- Assessing alignment with defined innovation focus areas
- Reviewing technical feasibility and commercial potential
- Prioritizing opportunities based on impact and resource requirements
- Supporting coordination across business units and regions

This governance layer is intended to promote consistency in evaluation while allowing flexibility in regional engagement.

Relevance to the wider chemical sector
While organizational structures vary, the principles illustrated here reflect **challenges commonly discussed across the chemical industry** when scaling supplier-enabled innovation. The appendix is provided to offer transparency into one applied approach, rather than to propose a universal solution.

Appendix 2.1

Vertical Innovation Spotlights

To illustrate how supplier-enabled innovation priorities manifest in different business contexts, we provide examples from two Clariant business units operating in markets where sustainability, regulatory requirements, and performance expectations increasingly shape innovation activity.

Key Innovation Focus Areas:

- **Bio-based and biodegradable materials** — Alternatives to petroleum-derived ingredients
- **Multifunctional formulation ingredients** — Reducing ingredient complexity while maintaining performance
- **Lower-carbon building blocks** — Supporting lifecycle emissions reduction
- **Specialized excipients** — Including controlled-release technologies for pharmaceutical applications

Supplier Collaboration Priorities:
82 % of engaged suppliers in this vertical report plan to invest in R&D focused on sustainable inputs by 2026, demonstrating strong alignment between market demands and supplier capabilities.

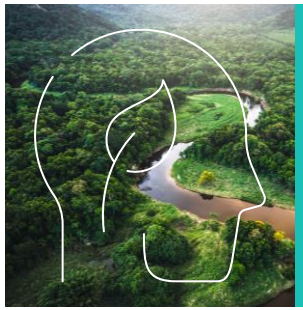
Appendix 2.1
Vertical Innovation Spotlights

Innovation Arenas

Three Arenas to deliver innovation-fueled growth

~70 %
Growth Contribution
2024–2027

~20 %
2027 Innovation Target [1]



Health- and sustainability-conscious customers and brands

Energy Transition

Circularity

Innovation Platforms

Catalysts for the Energy Transition

For hydrogen economy, DRI, SAF, and low-carbon breakthrough technologies

Sustainable Actives

Biologically active natural extracts, peptides, and high-value cosmetic ingredients

Adsorbents

For oil purification, coatings, and controlled-release fertilizers

Polymer Solutions Enabling Sustainability

Providing flame retardancy, recyclability, the elimination of PFASs, and microplastics

Surfactants & Functional Polymers

Basis for products across business segments

»Consumers want personal care products that are gentle, safe, and sustainable. We partner with suppliers who share our innovation mindset to turn bold ideas into real impact, from concept to fast, sustainable deployment.«

Hermann Bach
Head of Strategy & Innovation
BU Care Chemicals

Greater chemistry

Appendix 2.2

Adsorbents & Additives Business Unit

Key Innovation Focus Areas:

- **PFAS-free solutions** — Addressing emerging regulatory constraints in food packaging and consumer applications
- **Renewable and waste-derived materials** — Wax technologies from sustainable sources
- **Halogen-free flame retardants** — Phosphorus based building blocks for emerging applications
- **Circularity-enabling additives** — Biobased building blocks – supporting resource efficient performance additives

Supplier Collaboration Priorities:
Focus on suppliers with capabilities in advanced materials science, regulatory expertise, and scale-up capabilities for specialty applications.

Key insight: These examples illustrate how sector-wide innovation themes — sustainability, regulatory compliance, performance optimization — translate into application-specific focus areas. Effective supplier collaboration requires understanding both the broader industry trends and the specific technical requirements of each vertical.

As e-mobility accelerates, our flame-retardants enable the production of safer, lighter batteries and materials, helping car manufacturers to meet performance and safety expectations. By collaborating with suppliers on innovative building blocks, we can bring these solutions to market more quickly and sustainably.

Manuel Mueller
Head of Strategy & Innovation
BU Adsorbents & Additives

Greater chemistry

Appendix 3

Collaboration in Action

Purpose of this appendix
To demonstrate how supplier-enabled innovation can be progressed in practice, we provide two illustrative pilot examples with operational learnings relevant to the wider chemical sector.

Key messages

Proven concept: successful pilots in 2025 in India, North America, and China
Fully established SEI team and BU routines
Successful global external and internal rollout with strong BU engagement
First successful cases prove viability of SEI

80+

SEI projects running

60+

Suppliers onboarded

40+

Innovation Day sessions
conducted since 2025

SEI Innovation Champion's Agro, Mining and Oil
Accelerating Innovation Through Dynamic Dialogue and Strategic Co-Development

Appendix 3
Collaboration in Action

Cross-case collaboration learnings — See Figure 2.

Five enabling factors were consistently observed:

1. **Clear communication** supporting alignment on objectives and evaluation criteria
2. **Defined roles and responsibilities** between innovation exploration and commercial execution
3. **Early involvement** of relevant technical and procurement stakeholders
4. **Flexibility** to adapt scope and approach as new information emerged
5. **Structured approaches to resolving** technical and commercial differences

These factors reflect widely recognized principles of effective cross-functional and cross-organizational collaboration and are not unique to the examples presented.

The following excerpt provides a qualitative perspective from a supplier participant involved in one of the collaboration pilots referenced, included to offer contextual insight rather than evaluative endorsement.

Specific targets, commitments, and affiliations are disclosed through Clariant's corporate sustainability and ESG reporting and are not assessed within this white paper.

Further information on Clariant's innovation activities is publicly available via its corporate channels.

https://www.clariant.com/en/Innovation
https://www.clariant.com/en/Company/Procurement-and-Suppliers

Figure 2

The five factors that enable effective collaboration

1. Clear Communication: Ensures effective decision-making, resource sharing, and alignment with corporate values.

2. Defined Goals and Roles: Provides direction for the team members and helps in understanding the team's mission and goals.

3. Trust and Respect: Involvement promotes positive relationships and teamwork, fostering a supportive environment.

4. Flexibility and Adaptability: Allows teams to adjust to new challenges and opportunities, enhancing their ability to respond to change.

5. Effective Conflict Resolution: Helps teams address and resolve conflicts constructively, maintaining a positive work environment.