Future Materials Group

Market Update for the Advanced Materials Sector

Autumn 2025

Future Materials Group continues to monitor the advanced material space and the strong influences exercised by broad economic trends, evolving end markets, and shifting supply chain dynamics. This market update offers an analysis of the industry’s current state, providing insights into key financial and strategic developments over the past year.

Foreword

Across global industries, value chains are being reshaped by technological change, sustainability, and localisation. These forces are redefining how and where advanced materials create value. This issue of FMG's Market Update explores these shifts through three sectors at the centre of transformation.

In building and construction, advanced materials are moving from specialist use to strategic importance. Sustainability requirements, modularisation, and productivity pressures are accelerating adoption, while manufacturers focus on scalable solutions that improve efficiency and durability.

In automotive, the emergence of electrification and software-led platforms are shifting value toward batteries, semiconductors, and lightweight materials. This is prompting new strategies across the supply chain.

Meanwhile, India's specialty chemicals market stands at a strategic inflection point. Strong domestic demand, policy support, and global supply realignment are positioning the country as a key contributor to the advanced materials ecosystem.

Taken together, these articles show how advanced materials continue to underpin industrial competitiveness in an increasingly complex and interconnected world. Our report begins with our Financial Review which provides an update on several key industry financial metrics and outlines relevant M&A activity.

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How does Future Materials Group define the advanced materials sector?

Creating a concise yet meaningful industry segmentation is a challenging task. Advanced materials, in particular, can have different definitions to different observers which can shift over time.

At Future Materials Group, we prefer a broad definition of advanced materials that captures a variety of technologies. In general, advanced materials tend to have the following properties:

Advanced materials possess intrinsic properties that offer an advantage to the end-product or to the manufacturing process

Advanced materials are often highly differentiated and contain considerable intellectual property

The advanced materials market is often restricted by high barriers to entry created by complex processes and technical expertise

The above criteria create a wide breadth of advanced materials, ranging from spherical metal powders for the additive manufacturing industry to specialised flavour additives for the nutrition industry. We can further analyse this sector and derive insight by applying a variety of lenses, such as exploring the underlying chemistry of the material, the functionality the material offers, the position in the value chain and the end market it serves. These lenses provide insight into

how companies develop their strategies and how investors value them.

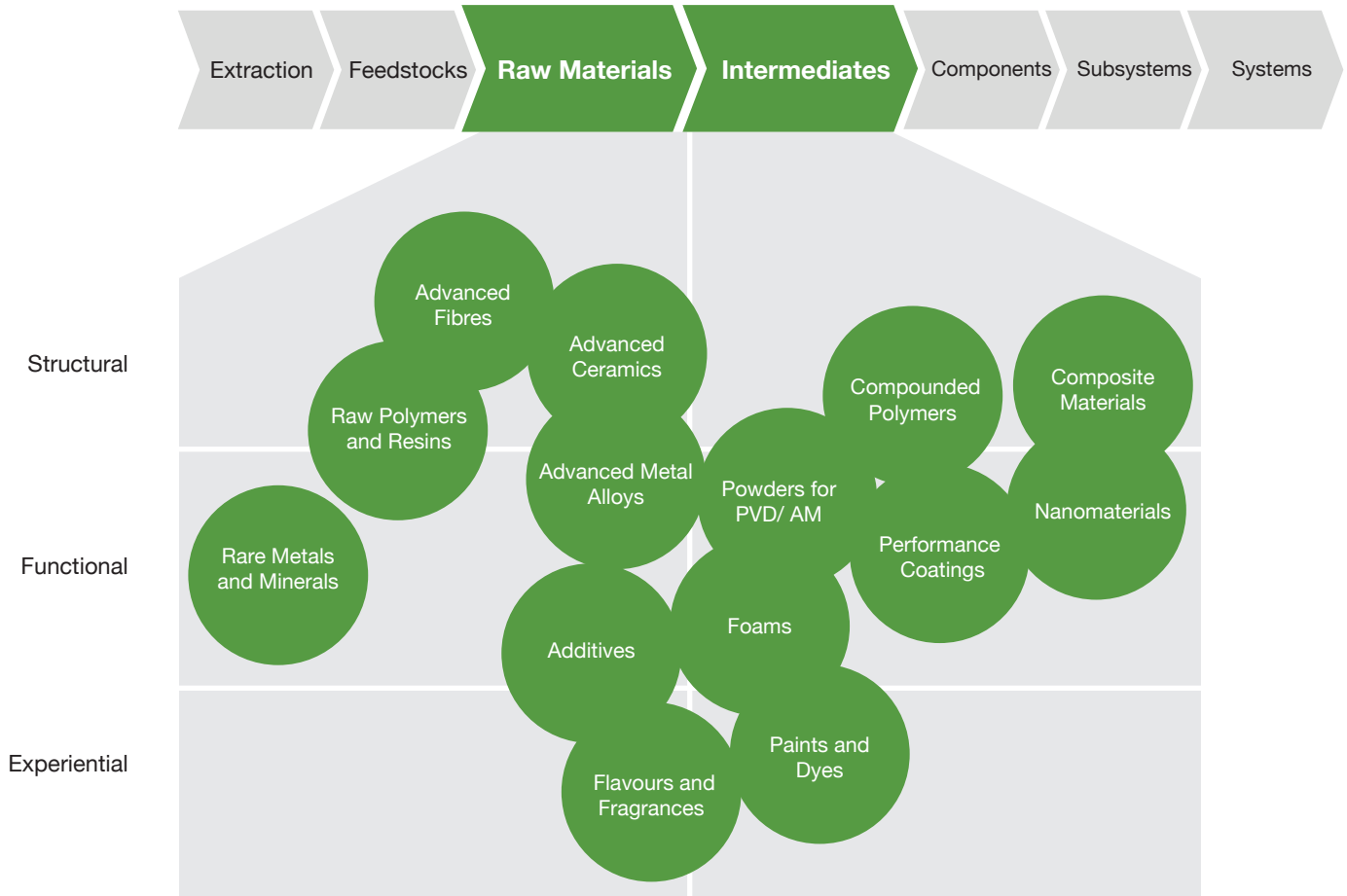
When analysing the market in this manner several commonalities emerge among advanced material companies. Advanced materials producers can often derive higher margins and are less asset intensive than their commodity chemical counterparts. As a result, advanced materials firms are typically traded at a premium in financial markets. Given the long development cycles for advanced materials, many companies use acquisitions to drive innovation and protect against commoditisation.

To monitor financial metrics within the industry, Future Materials Group has created a database of approximately 175 publicly-traded companies that helps quantify and analyse financial trends. As our focus lies with the materials industry, we focus on raw material and intermediates producers, rather than upstream feedstocks suppliers and downstream component manufacturers. The companies selected all have commercial production capacity as opposed to pure R&D firms. The chart on the next page shows a small selection of different materials, functionality and value chain position.

Any definition of the advanced materials market is inherently dynamic as material technologies evolve over time. As some materials may shift towards commoditisation, new materials are constantly being engineered. Consequently, FMG's analysis with continue to evolve with the industry.

In our latest report, we have refreshed our lists of public companies in both the advanced material and commodity chemical sectors. As a result, you may notice small changes in the data versus our prior reports.

Landscape of select advanced materials



Financial Review

Market Commentary

Financial Review

Revenues plateau after period of decline
Following a period of decline in 2023, advanced materials revenues have stabilised at approximately 30% above 1Q21 levels. The earlier decline reflected weaker end-market demand, falling prices, and customer destocking, as noted in Issue 5.

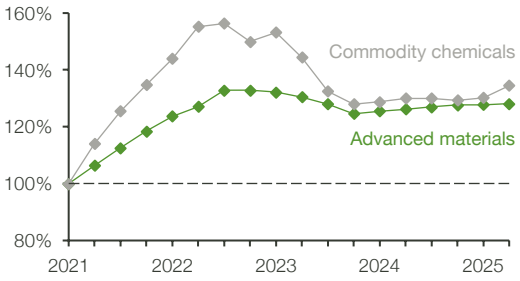
Commodity chemicals revenues have similarly levelled off after the sharp rise and fall between 2021 and 2023, mirroring the Industrial Chemicals Produce Price index. This suggests that raw material pricing has largely normalised after the inflationary period of 2021–2022, albeit roughly 15–20% above early 2021 levels. A brief uptick in 2Q25 commodity chemicals revenue was seen, though its sustainability remains uncertain.

Compared to commodity chemicals, the less pronounced revenue fluctuations in advanced materials underscore the sector's reduced exposure to pricing volatility, reflecting its higher value-add and product differentiation.

However, over the past year, revenue growth has remained subdued as global overcapacity and pricing pressures persist. This market sentiment is reflected by Ecovyst's management in their 2Q25 earnings call: "2025 continues to provide a challenging operating environment for our industry with companies in our sector facing issues that include global production overcapacity, pricing and margin pressures, and disruption related to the evolving tariff landscape."

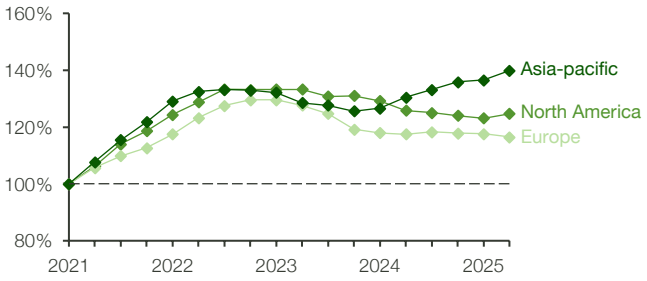
Regionally, revenue dynamics remain uneven. Europe continues to experience a gradual decline, while North America has held broadly stable. By contrast, Asia-Pacific has seen notable revenue growth, despite immediate concerns that tariffs would dampen trade. This may reflect a combination of pre-tariff stockpiling and subsequent re-routing of trade flows. For instance, the Economist notes that in the year to September, even though China's exports to the United States fell by 27%, overall exports grew by over 8%.

Advanced material revenues have remained constant in 1H25
Revenue (indexed to Q1 2021)



Source: Koyfin, FMG Analysis

Revenue dynamics differ regionally
Revenue (indexed to Q1 2021)



Source: Koyfin, FMG Analysis

Advanced materials EBIT margin stabilise

Over the past 18 months, EBIT margins for advanced materials have stabilised at around 8%, only marginally lower than pre-pandemic levels. This plateau reflects the sector's lower margin volatility compared to commodity chemicals, supported by continued supply-chain optimisation and overhead cost reduction measures implemented over the past two years.

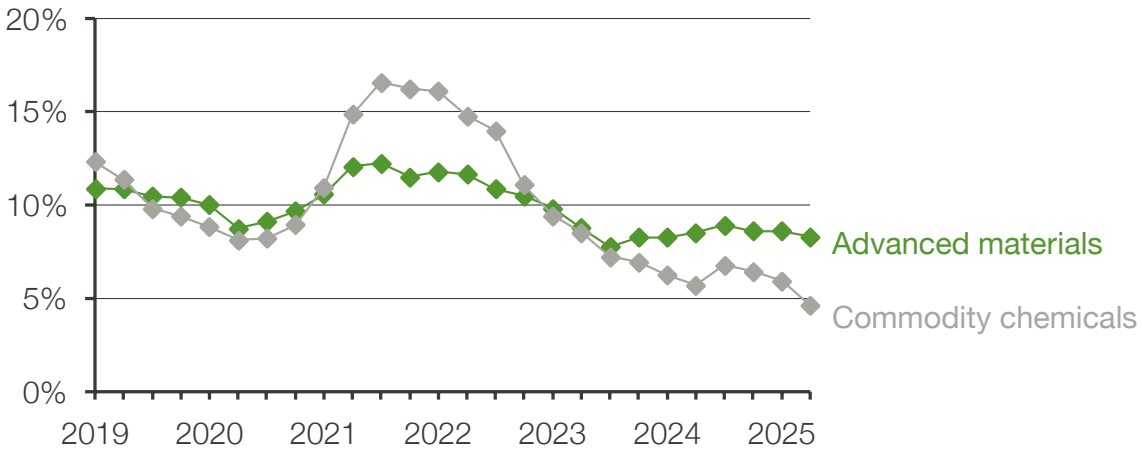
In contrast, commodity chemical margins remain on a downward trajectory. After peaking near 17% in 2021, margins have steadily declined and now stand at roughly 5%, well below their pre-COVID range of 10–13%. The sector continues to experience weaker pricing power amid slower demand recovery and persistent overcapacity, particularly in Asia. The American Chemistry Council has cited "weak global demand and overcapacity from China" as ongoing headwinds for the U.S. chemical industry, a dynamic that continues to ripple through the global value chain.

The relative stability of advanced materials, maintaining margins within a narrower 7–11% range, underscores their less cyclical nature compared to commodity chemicals. Continued destocking across end-markets has nonetheless placed pressure on profitability, prompting companies to focus on improving capacity utilisation.

Overall, the contrast in margin behaviour between the two sectors highlights the structural resilience of advanced materials businesses, even as broader market conditions remain subdued.

Advanced materials EBIT margin has stabilised in 1H25, fluctuating less than commodity chemicals

Median EBIT margin (TTM)



Note: EBIT stands for earnings before interest and taxes; TTM stands for trailing twelve months
Source: Koyfin, FMG Analysis

Days inventory remain elevated for advanced materials producers

Days inventory, defined relative to cost of goods sold (COGS), remain around 100 days in the first half of 2025 for both advanced materials and general manufacturing sectors, significantly above pre-COVID levels of around 85 days. This sustained elevation suggests companies are moving beyond temporary destocking challenges toward holding higher baseline inventory levels as the new operational reality.

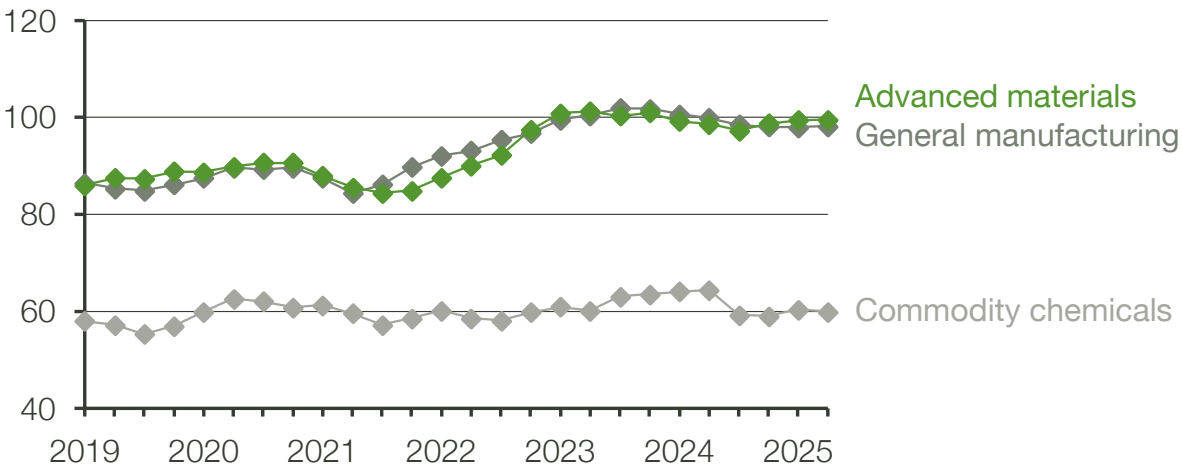
The parallel rise in inventory levels across both advanced materials producers and general manufacturing indicates a coordinated response to supply chain vulnerabilities exposed during the pandemic. Meanwhile, commodity chemicals maintain lower inventory levels (~60-65 days) as expected, given the industry's inherent limitations in inventory accumulation due to storage constraints and product degradation risks.

However, despite these aggregate trends, commentary from advanced materials companies reveal continued uncertainty about long-term inventory strategy. As noted by Huntsman management, "The present market uncertainties do not provide us or our customers confidence for longer-term inventory build and volume increase." Similarly, Eastman Chemical's CEO Mark Costa stated in Q1 2025: "The destocking is expected to continue into the second quarter, with some improvement anticipated in the latter half of the year. Contracts are largely in place, providing stability in pricing, but volume remains a challenge."

This cautious sentiment underscores that elevated inventories may be more a reflection of prevailing market uncertainty than a deliberate strategic shift.

Advanced materials days inventory remain above pre-pandemic levels

Median days inventory (TTM)



Note: Days inventory defined relative to cost of goods sold; TTM stands for trailing twelve months
Source: Koyfin, FMG Analysis

Advanced materials valuation multiples have declined over the past year

Forward-looking EBITDA multiple for advanced materials have declined in the past year, failing from highs 9.7x in 2Q24 to approximately 8.2x by 2Q25. The sharp dip in April 2025 coincided with a broader market decline, triggered by uncertainty surrounding the introduction of new US tariffs.

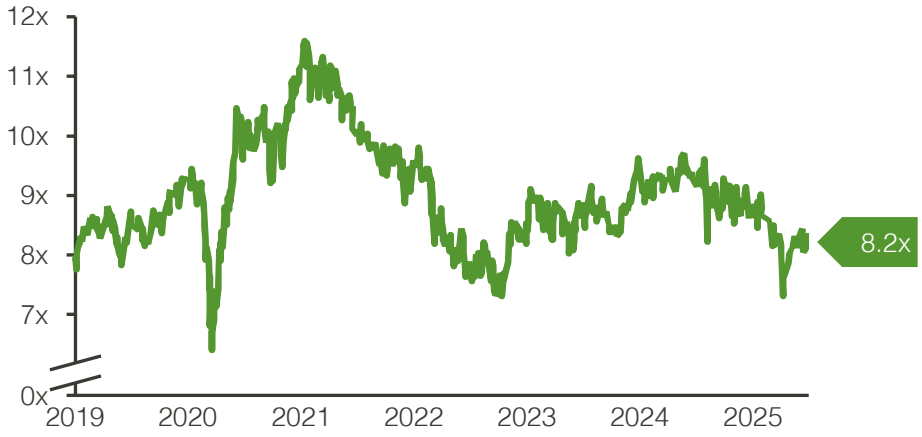
The 12% year-on-year decline in valuation multiples reflects a fall in enterprise value rather than any major change in expected EBITDA, which has remained broadly stable at around 15% above 2019 levels. This suggests that the contraction in multiples has been shaped primarily by market sentiment rather than weaker earnings performance.

Subsector valuation movements broadly mirrored the wider market trend, with most categories recording moderate declines. Health, Nutrition and Personal Care remained the highest-valued segment despite a 13% decrease, maintaining a clear premium over other subsectors. This reflects its strong margins, customer proximity, and relative resilience to cyclical demand shifts.

In contrast, technology-linked sub-sectors such as Functional Electronics and Metals & Alloys held steady, supported by ongoing investment in electrification and semiconductor supply chains.

Advanced materials multiples have declined over the past year

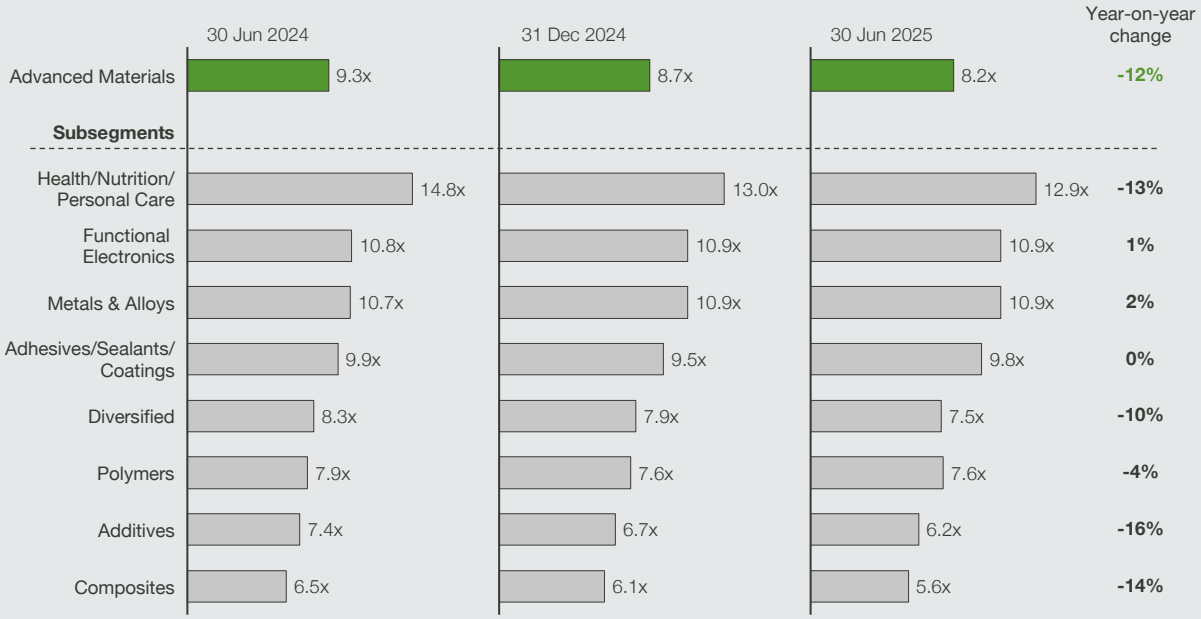
Median EV / EBITDA multiples (NTM)



Notes: EV stands for enterprise value; EBITDA stands for earnings before interest, taxes, depreciation and amortisation; NTM stands for next twelve months
Source: Koyfin, FMG Analysis

Valuation multiples for advanced materials companies have been decreasing over the first half of 2025

Median EV / EBITDA multiples (NTM)



Notes: EV stands for enterprise value; EBITDA stands for earnings before interest, taxes, depreciation and amortisation; NTM stands for next twelve months
Source: Koyfin, FMG Analysis

Global materials M&A shows early recovery while speciality chemicals is yet to follow

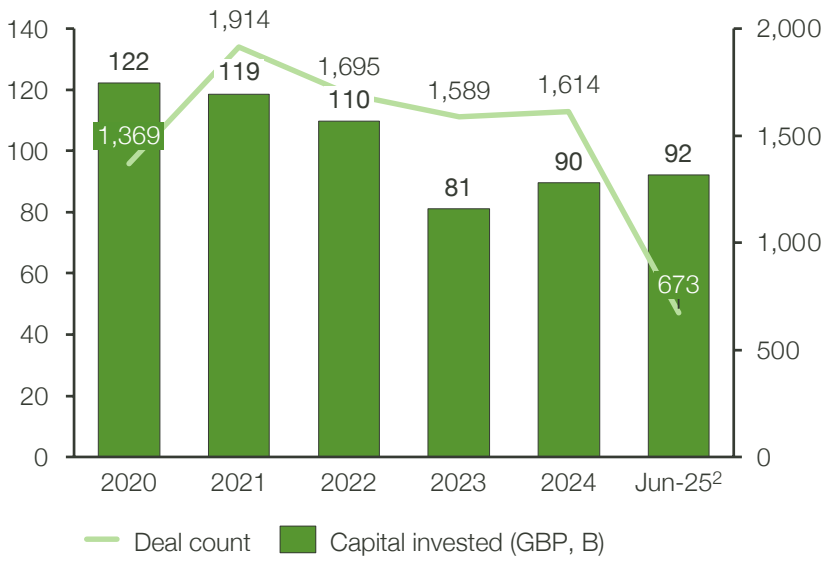
Since 2020, global M&A activity across the materials and resources sector has undergone a clear shift. After the post-pandemic surge of 2021, the market has cooled considerably. Deal counts have trended downward since, linked with weak demand, overcapacity and cost pressures in the past few years, which have lowered valuations multiples and made buyers more cautious. However, deal volume has picked up in 2024 and is expected to increase further by 2025 year-end since the 2025 data currently captures only the first half of the year.

Within specialty chemicals, this moderation is even more pronounced. Although the segment broadly mirrors the overall decline in deal volume, its capital invested trajectory has diverged: while the wider materials sector has seen a slight rebound in total deal value over the past 18 months – driven by fewer but larger transactions – specialty chemicals investments have continuously decreased since 2021. 1H25 has proven a challenging environment for specialty chemicals linked with geopolitical uncertainties and trade obstacles.

From a regional perspective, Europe continues to lead with 36% in overall materials by deal count, while the United States dominates in total capital invested with 33% respectively. In specialty chemicals, both the US and EU contribute almost equally, together representing roughly 70% of global

Materials & resources M&A activity shows signs of recovery after decline from 2021

Materials & resources[1] sector M&A since 2020



Notes: 1. Materials & resources includes chemicals, metals, minerals & mining, agriculture, construction, packaging, textile and forestry.
2. Results for 2025 include only half year results until June 2025.
Source: FMG analysis; Pitchbook

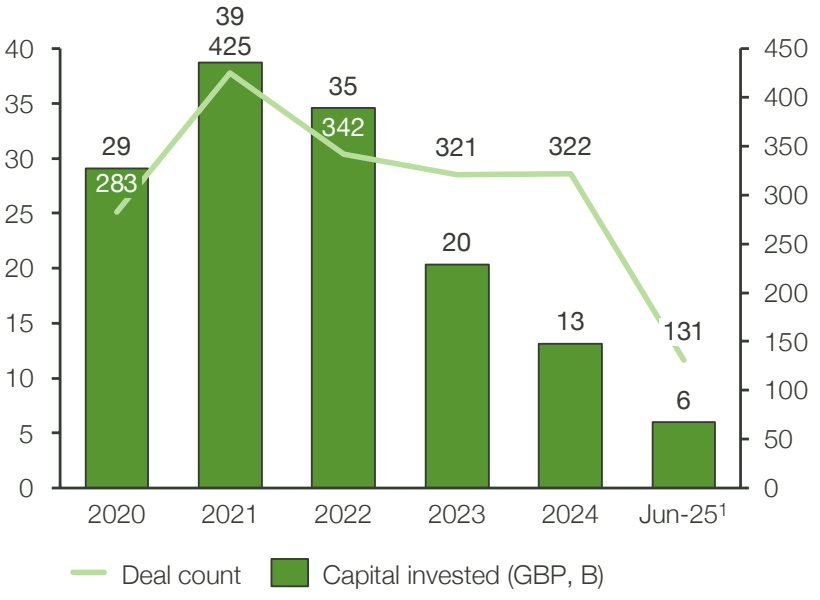
deal volume or 80% of global invested capital, underlining the central role of these two regions in shaping the sector.

Across both materials & resources and the specialty chemicals sub-segment, strategic buyers continue to dominate, representing 75–80% of all transactions. This reflects the need for corporates to strengthen portfolios and capabilities rather than purely financial plays. Private equity funds are actively targeting carve-outs, aiming to turn non-core divisions of industrial conglomerates into standalone growth platforms through sharper operational focus and new investment. This trend is exemplified in Europe, with buyout firm Carlyle announcing the acquisition of BASF's coatings business for EUR 7.7 B in Oct-25.

Mirroring the M&A trend, venture capital investment has been highly selective globally across the wider advanced materials sector due to macroeconomic conditions in the past few years. However, investor interest in material sciences is remaining strong, as advanced materials are viewed as a critical enabler of next-generation technologies across energy, mobility and electronics. Strategic corporate venture arms from groups such as BASF, Evonik and Dow are increasingly backing start-ups focused on circular polymers and next generation composites aligned with decarbonisation and performance goals. BASF Venture Capital has for example completed 38 investments in materials space to date, including in US-based Group14 Technologies, a leading manufacturer of advanced silicon battery materials.

Specialty chemicals M&A activity remains on a downward trajectory since 2021

Specialty chemicals sub-segment M&A since 2020



Notes: 1. Results for 2025 include only half year results until June 2025.
Source: FMG analysis; Pitchbook

Recent advanced materials M&A focused on composites, coatings & adhesives and construction chemicals

Over the past year, deal activity in advanced materials has shown momentum across subsectors such as composites, coatings and adhesives, and construction chemicals, each supported by various strategic rationales.

In composites, transactions have spanned the full value chain – from upstream materials or resin producers like PTM&W and Alta/INEOS, through intermediate forms such as unidirectional tapes and foam cores (i.e. Toray/Gordon Plastics, Maricell), to component manufacturers including Unitech, Beyond Composite and Fiber Materials. This wave of activity underscores both the sustained demand from aerospace and defence end-markets and the increased private equity focus on component suppliers with application-specific IP and long-term customer relationships. The segment has also been shaped by larger strategic moves, including Owens Corning's pending divestment of its glass reinforcements business, signalling continued portfolio realignment among leading materials players.

In coatings and adhesives, deal activity has combined large portfolio integrations (such as Nippon's acquisition of AOC and Arkema's purchase of Dow's flexible packaging laminating adhesives business) with targeted bolt-ons in industrial coatings and solvent-free adhesive technologies (e.g. Arsenal backed ATP Group acquiring Neschen Coatings and Protech Group of Canada acquiring Caldwell Chemical coatings). These transactions highlight two prevailing priorities: portfolio diversification to balance cyclical exposure and sustainability-driven repositioning toward low-volatile organic compounds and bio-based formulations.

Meanwhile, construction chemicals have seen further consolidation among global leaders like Saint-Gobain and Sika, as they strengthen their positions in high-performance product lines and fast-growing emerging markets.

Collectively, these patterns confirm that investors and strategics view advanced materials not as a single industry but as a constellation of specialised niches, where differentiation and thus value rests on application-specific know-how, sustainable technology platforms and regional growth access.

Select recent deals in advanced materials

Composites in aerospace

Jan-25

- **Overview:** Tex-Tech (backed by Arlington Capital Partners) acquired Fiber Materials Inc., a US-based producer of composite materials in aerospace and defense applications, from Spirit Aerosystems
- **Rationale:** portfolio expansion in high-performance materials and reinforced composites

Coatings and adhesives

Oct-24

- **Overview:** Nippon Paint acquired AOC resin, a global specialty formulator based in the US and Europe, specializing in composite resins and materials
- **Rationale:** portfolio expansion into the specialty chemicals sector, complementing its existing business in paint and coatings

Construction chemicals

Feb-25

- **Overview:** Saint-Gobain completed the acquisition of Fosroc, a UAE based construction chemicals player
- **Rationale:** geographical expansion into fast-growing Asian and emerging markets (India and Middle East) to strengthen Saint-Gobain's worldwide presence in construction chemicals

Source: FMG analysis; Pitchbook

Market Commentary

How advanced materials could drive value chain transformation in global building and construction markets

Advanced materials move from niche to necessity

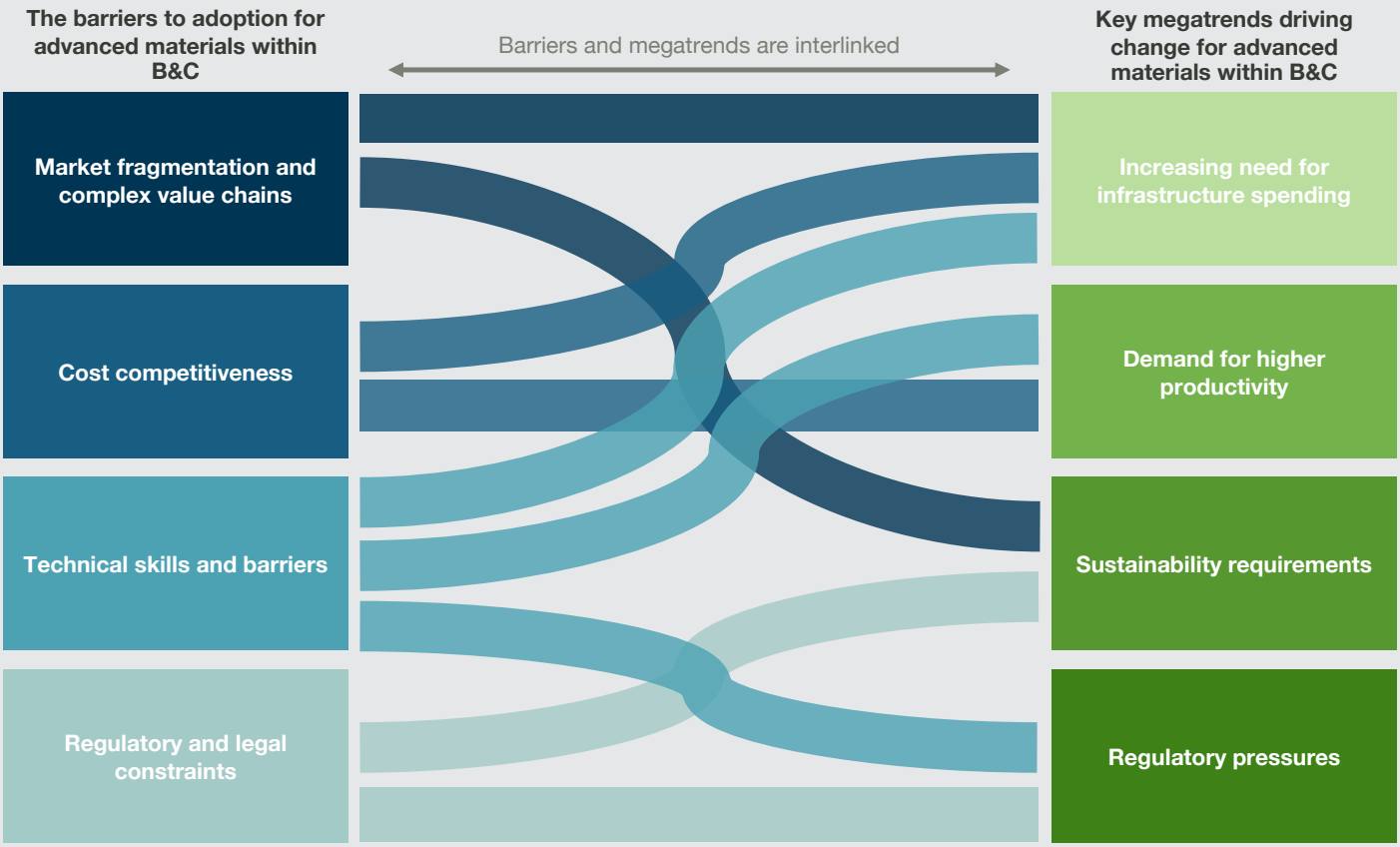
The global building and construction market remains one of the largest and most influential industrial sectors. In 2024, Deloitte valued the construction market at over USD 11 trillion and it is forecast to reach circa USD 16 trillion by 2030, representing a compound annual growth rate of nearly 6 per cent. Construction already contributes roughly 13 per cent of global economic output, according to Reuters, yet productivity has scarcely improved in decades. Compared with manufacturing, which has achieved steady efficiency gains, the sector is slow to embrace new processes and materials. Customised projects, fragmented value chains and risk-averse procurement practices have entrenched a conservative culture that resists change.

Advanced materials offer a significant opportunity to break this pattern. Composites and other high-performance materials deliver durability, sustainability and superior lifecycle economics when compared with traditional inputs such as steel, concrete and timber. Despite this, penetration remains low. Composites account for around 10 per cent of global composite volume demand but only 0.1 per cent of the USD 2.5 trillion construction materials market by value, underscoring the scale of untapped potential.

Barriers to adoption

The path to greater use of advanced materials is hindered by structural and practical obstacles. The construction ecosystem involves architects, engineers, contractors and regulators, each adding layers of approval and extending decision cycles. Cost perceptions remain a key challenge. Although advanced materials can reduce maintenance costs over a building's lifetime, higher upfront prices deter adoption. Installation can require specialised labour at a time when the industry faces stagnant productivity and persistent skills shortages. Regulatory and legal constraints add further complexity. Building codes and safety standards evolve slowly and inhibit the introduction of unfamiliar materials. Moves towards standardisation, such as the American Composites Manufacturers Association's publication of product certification requirements for platforms and stairways, mark progress but comprehensive frameworks remain incomplete.

Barriers and megatrends are interlinked and thus we are seeing a shift in the B&C industry



Megatrends driving change

Despite these hurdles, powerful market forces are creating favourable conditions for advanced materials.

Infrastructure renewal is a pressing global priority. Decades of underinvestment have left buildings and civil structures ageing and underperforming, particularly in North America and Europe. Harsher climate conditions, from hurricanes to floods, are increasing the need for materials that can withstand environmental stress. Governments and asset owners are shifting their focus from capital expenditure to total cost of ownership, favouring solutions that extend asset lifetimes and reduce maintenance. McKinsey's analysis states that the retrofit market alone must grow from approximately USD 500 billion today to around USD 2.9 trillion by 2030 and USD 3.9 trillion by 2050 if net-zero targets are to be met.

Productivity pressures also encourage adoption. Construction productivity lags manufacturing by roughly 50 per cent and the wider economy by about 15 per cent, with little improvement over the past twenty years. Labour shortages and an ageing workforce exacerbate the challenge. Advanced materials that enable faster installation, reduce downtime or simplify construction can directly address these gaps.

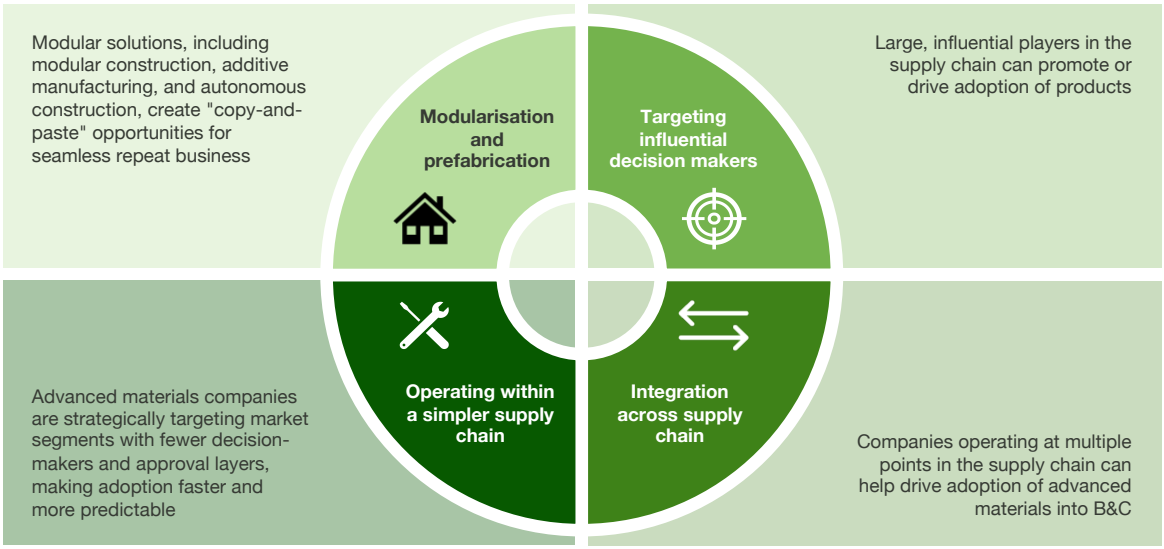
Sustainability requirements add a third driver. The construction sector, covering the full lifecycle from design to demolition, accounts for an estimated 40 per cent of global greenhouse gas emissions according to Oxford Economics. Net-zero commitments for 2050 and tightening building codes such as LEED, BREEAM and WELL are pushing developers to adopt materials with proven environmental benefits. Circular economy regulations promote recyclable and bio-based products, while investors and customers increasingly demand transparent metrics on emissions and resource use.

Regulatory momentum completes the picture. Governments are strengthening building performance standards and encouraging energy-efficient design. Interest rate reductions and political support for infrastructure investment are creating a more positive financing environment for new projects and retrofits.

Routes to market

To capture this opportunity, we see advanced materials producers are adopting four main strategies.

Four approaches to accelerate adoption of advanced materials in B&C



Modularisation and prefabrication combine factory manufacturing with on-site assembly. Advanced materials suit this approach because controlled environments allow precise quality control and economies of scale. Modular construction reduces waste, lowers costs and shortens project timelines while improving durability and energy performance. High-profile examples include Apple's Steve Jobs Theatre, which features the world's largest prefabricated carbon fibre roof weighing 80.7 tonnes, and Avient's partnership with Resia in the United States to incorporate continuous glass fibre-reinforced thermoplastic panels into bathroom and kitchen modules.

Targeting influential decision makers can accelerate early adoption. Large developers and contractors can advocate for advanced materials in niche applications where performance benefits justify a price premium. Companies such as 3M sell specialised adhesives and structural films directly to contractors, while Covestro partners with prefabrication manufacturers for polyurethane insulation systems, bypassing traditional distributors.

Integration across the supply chain is reshaping competitive dynamics. Developers prefer suppliers that can provide combined material and installation solutions. Mergers and acquisitions enable vertical integration and direct access to end customers. Hill & Smith Group in the United Kingdom has acquired a series of composite businesses to build internal fabrication capabilities. Owens Corning has expanded into branded residential products through the USD 3.9 billion acquisition of Masonite.

Operating within simpler supply chains can also speed market entry. Companies are targeting segments with fewer approval layers and more predictable adoption. North American rebar manufacturers are shifting towards flatwork rebar, which can be distributed through large retailers without engineering sign-off. Basilisk and Avecom market self-healing concrete additives directly to ready-mix producers, while Henkel and Sika sell structural adhesives straight to large construction firms, reducing the number of intermediaries.

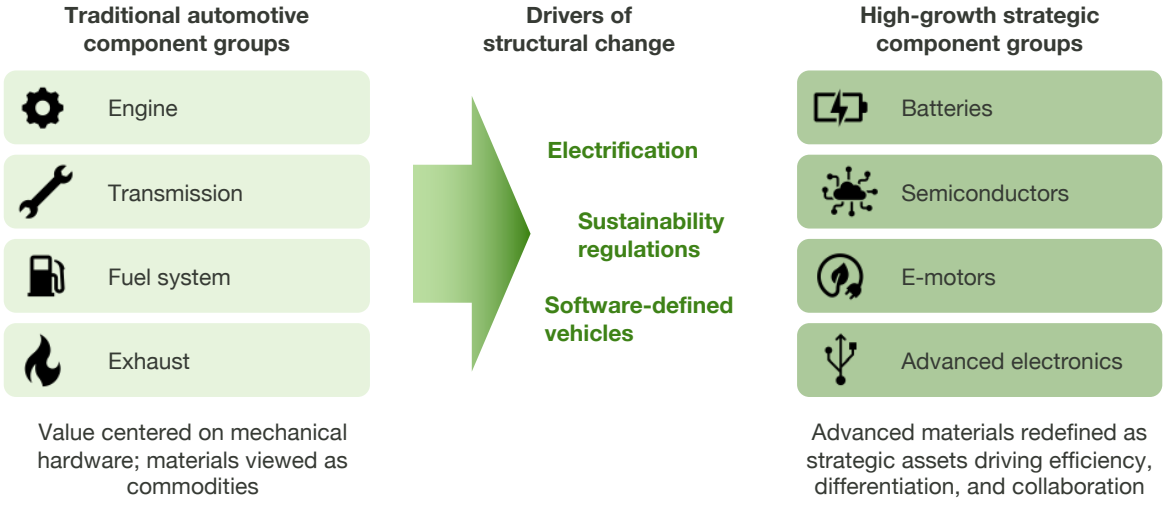
Outlook

The building and construction sector stands at an important turning point. Advanced materials are moving from specialist applications to mainstream strategic importance. Their advantages in durability, lifecycle cost and environmental performance align with the four megatrends of infrastructure renewal, productivity improvement, sustainability and regulatory tightening. Companies that combine technical benefits with clear economic value and effective market strategies will be best placed to overcome the industry's conservative structure. As performance requirements and sustainability mandates intensify, material choice and construction method will become increasingly inseparable, reshaping the way projects are conceived and delivered.

Automotive value chain shifts drives realignments and advanced materials opportunities

The global automotive industry is undergoing unprecedented structural changes that are redefining value creation throughout the industry. As is well reported, electrification has shifted attention from internal combustion engines (ICEs) to electric powertrains, while regulatory pressure on emissions and efficiency have accelerated investment in sustainability. Simultaneously, mechanical hardware has transitioned to software-driven differentiation, through autonomous technology, advanced driver assistance systems, and connected services. Although overall vehicle sales have stagnated, specific components have emerged as high-growth, strategic areas that define competitiveness across the industry. Batteries, software and electronics now represent the core of the vehicle, triggering strategic realignment across the entire value chain, from OEMs to material producers, providing opportunities for the advanced materials sector.

The automotive value chain is undergoing structural change providing opportunities for advanced materials manufacturers



The emergence of new OEMs and opportunity for advanced materials

The entry of new automotive OEMs has created opportunities for advanced materials. Electric vehicle (EV) specialists such as Tesla, Rivian, NIO, and Li Auto, along with technology entrants, such as Sony Honda Mobility, Foxconn, and Xiaomi Auto, design purpose-built electric and software-defined vehicles unconstrained by legacy ICE platforms and supplier relationships.

This flexibility in material selection enables greater adoption of advanced materials, such as fibre reinforced composites for structural components, and thermally and electrically optimised materials in battery enclosures. The emphasis on modular skateboard platforms and integrated battery packs is making advanced materials a strategic differentiator of performance, safety and sustainability. As the technology landscape evolves, OEMs and suppliers are reevaluating their strategies to maintain competitiveness, strengthen supply chains and secure critical technologies.

Material producers and the rise of China

As OEMs and suppliers adapt to electrification, the focus is increasingly shifting upstream, where access to critical raw materials has become a key source of competitive advantage. China holds a dominant position across several critical materials used in the automotive value chain, particularly in rare earth elements and battery materials. According to S&P Global, the country accounts for around 60% of global rare earth production and nearly 90% of processing, along with leading positions in cathode, anode, and battery cell production. This concentration gives China a decisive advantage in EVs and creates strategic vulnerabilities for manufacturers elsewhere.

Dependence on Chinese supply chains exposes Western and other non-Chinese manufacturers to geopolitical risk, supply disruptions and price volatility. Governments are responding by supporting domestic extraction, processing, and recycling, while material producers develop rare-earth-free magnets and alternative chemistries. China's dominance is therefore accelerating global efforts to localise supply and diversify materials.

Regional initiatives reflect this strategic response. The European Commission's Critical Raw Materials Act includes EUR 850 million to six battery cell manufacturing projects, and support for rare-earth-free e-motor technologies. In the United States, recent legislation promotes localisation of cell components, while the Department of Energy has provided USD 50 million to advance sodium-ion battery technology. Australia has recently emerged as a mining hub, with agreements such as BMW's lithium sourcing from Ganfeng and Stellantis's contract with Alliance Nickel for nickel and cobalt sulphate supply.

Materials as strategic assets

Amid this global supply chain reconfiguration, advanced materials have become strategic assets in the automotive value chain. Their importance is driven by rising performance demands that traditional materials cannot meet, growing geopolitical dependencies, and the accelerating shift toward electrification. In batteries, materials such as lithium, cobalt, nickel and silicon enhance performance and efficiency while the use of aluminium, advanced high-strength steel, and composites enable lighter vehicle architectures. At the same time, growing emphasis on sustainability is accelerating the development of bio-based resins, self-healing coatings and polymer-metal hybrids.

Recognising the importance of advanced materials, OEMs are securing long-term supply agreements and deepening collaboration across the value chain. For example, Stellantis has partnered with Infineon to co-develop next-generation vehicle architectures, while SiCrystal and STMicroelectronics have

expanded silicon carbide wafer supply. Others are investing directly, such as Porsche-backed Group14 acquiring a battery material plant and Toyota establishing a new battery production capacity in North Carolina.

Strategic implications for advanced materials

The transformation of the automotive value chain has elevated advanced materials from production inputs to strategic enablers of competitiveness. Electrification is driving demand for high-performance batteries, semiconductors, and lightweight structures, making rare earths, advanced polymers and composites increasingly critical.

This shift has three major implications. First, control of materials has become a strategic lever, not just a supply chain issue. Access to critical material inputs, whether through localisation, partnerships or recycling, will increasingly determine competitiveness and national resilience. Second, new vehicle architectures and the rise of software-defined OEMs are expanding the design space for material innovation. This creates opportunity to advanced materials - lightweight composites, thermally conductive polymers and multifunctional resins – to move from niche applications to structural and performance critical components. Third, collaboration is deepening, with material producers working more closely with OEMs and Tier-1 suppliers to co-develop solutions for new architectures, thermal management and safety systems.

Despite these advances, high costs, complex recycling processes, and scalability constraints continue to limit widespread advanced material adoption. Companies that can deliver cost-effective, sustainable, and scalable material solutions, while simultaneously collaborating early with agile OEMs, will be best positioned to convert material innovation into strategic advantage in the next era of mobility.

India’s speciality chemicals sector at a strategic inflection point

India’s chemicals industry stands at the cusp of a major transformation supported by policy initiatives such as *Make in India*, *Atmanirbhar Bharat*, and the *Production-Linked Incentive (PLI)* schemes. The country’s growing middle class, industrial expansion, and the global realignment of supply chains are reshaping the competitive landscape.

In 2025, India’s chemical market is valued at USD 300 billion, with the Economic Times of India projecting the market to reach nearly USD 1 trillion by 2040, expanding at a CAGR of 8%. This growth in India is far outpacing the European (1.5%) and North American (1%) markets.

Within this broader market, speciality chemicals represent a strategic growth frontier. The sector is forecast to grow from USD 64 billion in 2025 to nearly USD 100 billion by 2034, according to Cervicorn Consulting. Speciality chemicals are integral to advanced manufacturing, sustainability, and represent a key value-adding segment within the chemicals industry.

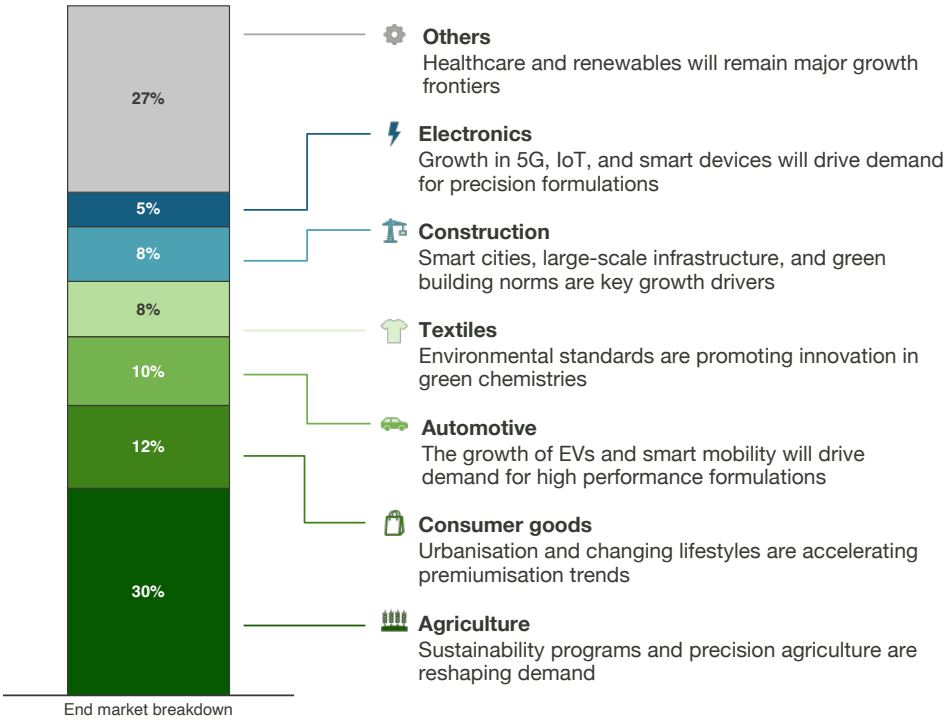
India’s evolving demand profile, coupled with strong export potential under the “China+1” dynamic, positions the country as a pivotal player in the global speciality chemicals value chain. However, realising this potential will require addressing challenges around feedstock dependency, regulatory complexity, sustainability, and innovation capacity.

Market segmentation and end use trends

India’s speciality chemicals market serves a wide range of industries, including agriculture, consumer goods, automotive, textiles, construction, and electronics. Agriculture remains the largest segment, accounting for around 30% of demand, with 27% distributed across various sectors such as pharmaceuticals, packaging, and renewables, according to Cervicorn Consulting.

Future growth will be characterised by a gradual reduction in the dominance of agriculture, as consumption shifts toward construction, automotive, consumer, and electronic applications. Rising urbanisation, infrastructure expansion, and technological advancement are creating new, higher value uses for speciality and performance chemicals. This diversification is expected to make the speciality chemical industry less cyclical and more aligned with broad industrial and consumer megatrends.

Sectoral insights for India's speciality chemicals



Source: Cervicorn Consulting; FMG analysis

Growth drivers and opportunities

India's continued economic expansion is creating opportunities across several strategic sectors. In renewable energy, demand for specialty chemicals is rising across the solar, wind, battery, and hydrogen value chains. Government incentives are also attracting significant investment in semiconductor fabrication, increasing the need for high-purity chemical inputs. Meanwhile, tightening environmental regulation and stronger ESG expectations are driving growth in bio-based and circular chemicals, positioning sustainability as a central theme for future development.

At the same time, India's role in global trade is strengthening. Although PWC ranks India ninth worldwide in speciality chemical exports, it remains the sixth-largest producer, underscoring untapped potential in export markets. The ongoing "China+1" global realignment creates an inflection point for India to emerge as a trusted global supplier.

Companies are driving export growth through M&A and forming joint ventures with international manufacturers and distributors that leverage domestic technology and global reach. Examples of recent transactions in the space include:

- Aditya Birla's acquisition of Cargill's Specialty Chemicals business – Strengthened their global bio-based surfactants presence
- Novomer's acquisition of Pressure Chemical - Added R&D and custom manufacturing in speciality polymers
- Atul's joint venture with Nouryon - Combined Indian market reach with global coatings technology expertise

Additionally, investments in logistics and overseas distribution networks are further improving access to export markets.

However, despite strong production capacity, India remains the sixth-largest chemical importer according to PWC, highlighting a significant substitution opportunity. Rising consumption and continued infrastructure investment will increase domestic demand, particularly in key segments such as electronics and construction.

To capture these opportunities, the sector must deepen backward integration, expand capacity in high-value segments, and reduce reliance on imports through scaled domestic production. Strengthening local supply will be critical to improving resilience and sustaining long-term growth in India's specialty chemicals industry.

Structural challenges within India's speciality chemicals sector

India's specialty chemicals sector continues to face several challenges that may constrain its long-term competitiveness. The introduction of the Chemicals Management and Safety Rules (CMSR), India's equivalent to Europe's REACH regulation, is expected to increase compliance costs, particularly for smaller producers. Stricter environmental standards are also adding to both capital and operating expenditure, while exporters must navigate overlapping global frameworks such as REACH, GHS, and OSHA.

Beyond regulation, the industry remains heavily dependent on imported raw materials, particularly petrochemical intermediates, which account for 40-60% of total production costs. This reliance exposes producers to price volatility and global supply disruptions, limiting manufacturers' control over margins. In contrast, China benefits from integrated production clusters and extensive government support, while North America and Europe leverage local natural resources and well-developed logistics networks to secure competitively priced inputs.

To reduce import dependence and strengthen domestic feedstock capabilities, Indian specialty chemical companies are adopting several strategies. These include long-term supply agreements to stabilise costs, investing in domestic raw material production, diversifying into sustainable feedstocks, and greater backward integration supported by government incentives under the PLI scheme.

A further challenge lies in the shortage of skilled labour that continues to constrain R&D and innovation across the sector. Smaller firms face particular challenges in adopting automation and digitalisation due to high capital costs and limited technical expertise. Without overcoming these barriers, the sector's long-term innovation capacity and international competitiveness will remain under significant strain.

Strategic outlook

India's speciality chemicals sector sits at the forefront of an industrial transformation, linking domestic growth ambitions with global supply chain realignment. With expanding consumption, policy support, and private investment, India is positioned to emerge as a global centre for speciality and performance chemicals.

However, realising this opportunity will depend on:

- Strengthening R&D, particularly in bio-based chemistry and circularity
- Enhancing supply chain resilience through feedstock independence
- Maintaining competitiveness through innovation, sustainability, and quality
- Attracting global partnerships via credible policy and regulatory frameworks

The coming decade represents a strategic inflection point. Companies that combine technology, agility, commercial acumen, and strategic foresight will not only drive India's ascent in the global speciality chemicals arena but also help define the next phase of sustainable industrial growth.

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