Closing the Commercial Gap: How Upstream Chemical Producers Capture the Value Their Chemistry Creates

DUCKER CARLISLE

Context: Why this matters now

Construction is not a single market. Even if new-build is soft in parts of Europe, spending is moving to areas that are harder to delay: energy renovation, repair of aging infrastructure, and high-performance buildings. In these segments, buyers pay more attention to performance and risk.

Decarbonization is also changing what "good" looks like. Customers increasingly want materials that deliver clear outcomes: better energy efficiency, stronger durability, safer fire performance, and healthier indoor environments. And they want these outcomes at system level, not just as a claim on a single ingredient.

At the same time, proof is becoming non-optional. More projects - especially public works and increasingly major renovation projects - require environmental and compliance documentation. Downstream manufacturers can only provide credible declarations if upstream suppliers give them consistent technical and environmental data.

Finally, execution is getting tougher. Skilled labor is tight, projects must be faster, and renovation often happens in occupied buildings. This increases demand for chemical solutions that make installation simpler: thin build-ups, faster curing, reliable adhesion on existing substrates, and lower rework risk.

Put together, these shifts raise the value of chemistry - but they also shift power to those who control system choice and proof. Upstream suppliers create performance, but decisions and margin are increasingly decided downstream. This creates an urgent problem to address.

Problem definition

Upstream chemical producers face a structural constraint in construction: the Decision-to-Purchase Gap. Market players who influence product choice are not the same as those who pay for it, and neither are they necessarily the ones who install or bear the risk of potential failure. In practice, an upstream supplier can deliver chemistry that improves thermal performance, durability, fire safety, or indoor air quality—yet still struggle to translate that value into specification preference or price realization.

Decarbonization is intensifying this challenge. As building owners and regulators push for lower operational energy use, better building performance, and more transparent environmental data, the market is moving away from "materials as commodities" and toward systems that can prove performance. Requirements increasingly sit at system level: airtightness, thermal continuity, fire compartmentation, durability over time, emissions/health, and documented environmental profiles. The value of chemistry is real—but it is only captured when it becomes part of a system that gets specified, installed reliably, and defended with evidence.

For many upstream chemical producers, the current operating model is not designed for this reality. They typically sell into intermediate formulators, converters, or product manufacturers, with limited visibility into downstream specification drivers, installer constraints, or certification pathways. The result is a recurring gap: value is created upstream, but selection is decided, and margin is captured downstream.

This is not only a technical challenge; it is a go-to-market and evidence challenge. Without a structured way to influence system selection—through validated performance claims, data packages that customers can use, and partnerships with the right system players—upstream suppliers risk being pulled into price-based competition at precisely the moment when construction is demanding higher performance and higher proof.

Market reality and winning logic: where value concentrates, and how upstream chemical producers win

Construction demand is not disappearing; it is rebalancing toward segments where performance, risk reduction, and proof matter more than lowest unit price. For upstream chemical producers, the opportunity is to focus on performance-priced pockets—and to build a structured path to influence system selection in those pockets.

Where value concentrates despite a softer construction cycle: three performance-priced pockets

Not all construction segments pay equally for advanced chemistry. The strongest opportunities concentrate in three pockets where customers pay for outcomes and reliability:

Energy renovation (especially “light renovation”)

Most renovation is not deep, multi-year work. It is often incremental—under tight budgets, limited space, and constraints on disruption. This favors solutions that improve performance without adding thickness and that can be installed fast and reliably on existing buildings.

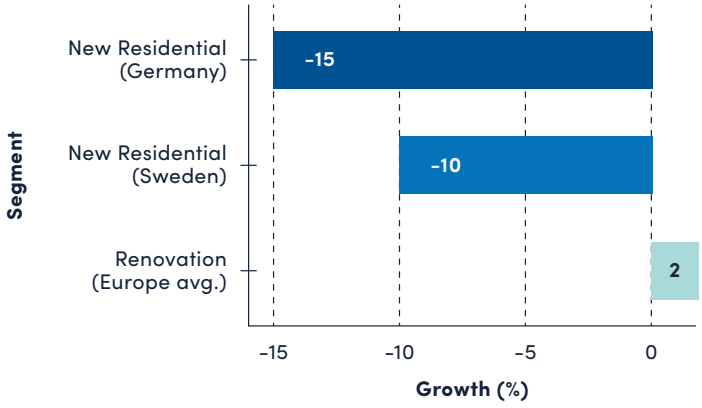
Starting in late 2022 and accelerating through 2024, high interest rates and increased material costs caused a sharp decline in "New Residential" construction (down as much as -10% to -15% in major markets like Germany and Sweden); during the same period, the renovation market remained stable or grew slightly (+1% to +2% annually). This has led to renovation now accounting for over 50% of the total European construction output for the first time in modern history, driven mainly by the age of the building stock and EPBD (Energy Performance of Building Directive).

MARKET SHIFT

Two Markets, Two Trajectories

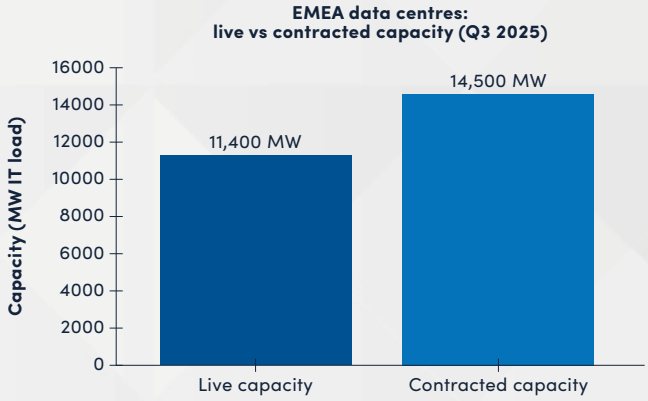
High interest rates and soaring material costs have driven new residential construction down 10–15% in key markets like Germany and Sweden.

Meanwhile, renovation held firm — growing +1% to +2% annually — and now accounts for over 50% of total European construction output for the first time in modern history.



Critical / high-performance buildings (data centers as the flagship example)

Mission-critical buildings pay for reliability. In data centers, downtime is expensive and requirements are strict. This creates premium demand for materials that support fire safety, smoke control, low emissions/IAQ, sealing integrity, and documented performance.

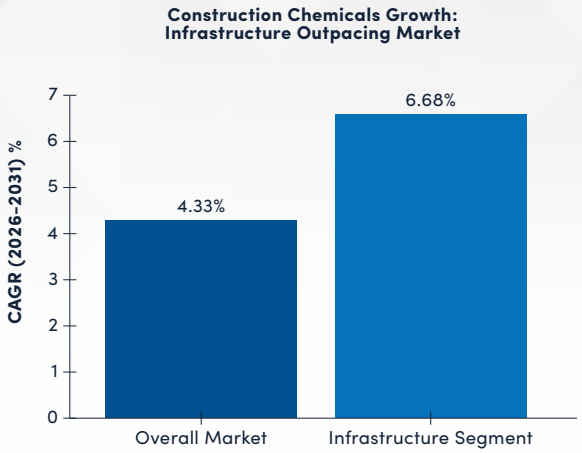


Source: Reuters, Ducker Carlisle.

Infrastructure and durability-driven maintenance

Aging assets and public safety concerns drive sustained demand for repair and service-life extension (roads, bridges, tunnels, water assets). These projects often prioritize lifetime cost, long-term performance, and validated durability.

Chemical upstream companies (producers of epoxy resins, polyurethanes, and acrylics) are shifting their R&D focus toward long-life, high-performance infrastructure materials.



Source: Ducker Carlisle, Mordor Intelligence

Takeaway: these pockets are less about construction volume and more about performance + risk + proof—which is exactly where chemistry can create value if it can be linked to system selection.

WHERE TO PLAY:

Prioritise "Performance-Priced" Pockets

Not all construction segments pay equally for advanced chemistry. Prioritise pockets where customers value outcomes (e.g., risk reduction, and evidence) —because that is where premium positioning is achievable.

POCKET 1

Energy renovation

- Why it pays: Space, disruption & labour constraints
- Thin build-ups & reliable adhesion on existing substrates
- Fast installation & tightness
- Moisture control & durable performance

POCKET 2

Critical & high-performance buildings

- Why it pays: Uptime, safety & high asset density
- Fire compartmentation & low smoke/toxicity pathways
- IAQ / low emissions & regulatory
- Durability under 24/7 operation & documentation

POCKET 3

Infrastructure & durability maintenance

- Why it pays: Safety, public scrutiny & whole-life cost
- Corrosion protection & waterproofing
- Repair chemistries & durability-enhancing additives
- Long life, validated performance over time

Decision rule:
If the downstream buyer optimises lowest unit cost and switching is easy, upstream differentiation is hard. If the buyer optimises risk, performance, and proof, upstream differentiation is achievable.

What buyers now require: three decision filters

Across these pockets, buying decisions converge around three practical filters. They determine what gets specified and which suppliers gain preference.

a) Outcomes, not ingredients or single components: performance must be visible at system level

Customers don't buy "a resin" or "an additive." They buy outcomes: airtightness, thermal continuity, moisture control, durable adhesion, crack bridging, fire compartmentation, reduced smoke, low emissions, corrosion resistance, longer service life. Performance is judged at the level of the installed system, not the single component.

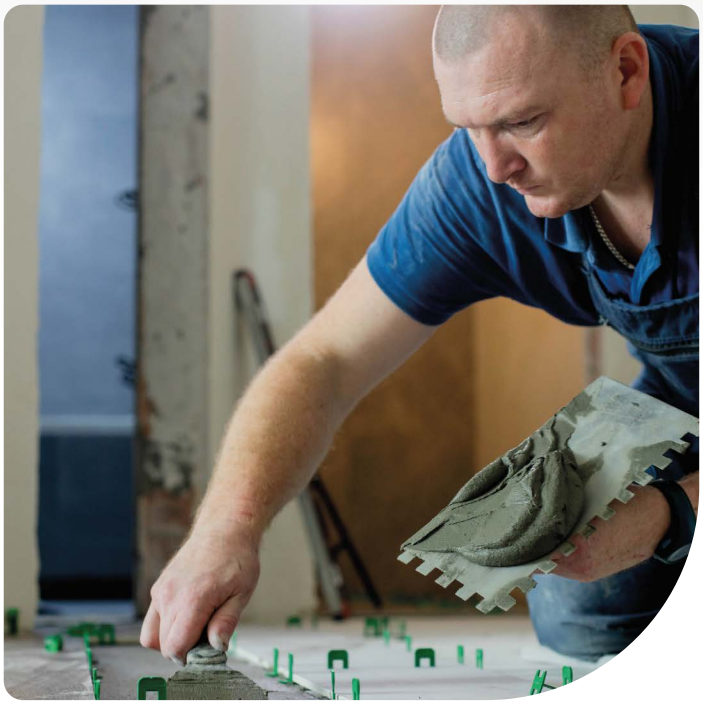
Implication for upstream suppliers: your chemistry must be positioned as an enabler of system outcomes—supported by test results, application guidance, and clear boundary conditions.

b) Productivity and reliability: ease of installation becomes a commercial differentiator

Labor is tight, renovation often happens in occupied buildings, and schedules are compressed. This increases demand for solutions that reduce mistakes and variability:

- thin build-ups that fit renovation constraints
- faster curing / shorter return-to-service time
- reliable adhesion on existing substrates
- robust performance across humidity/temperature variation
- fewer steps and lower rework risk

Implication for upstream suppliers: ease of installation is not a marketing detail; it improves project reliability and total cost of ownership, which supports premium positioning.



c) Proof and documentation: evidence becomes a gate, not an add-on

Environmental and compliance evidence is increasingly built into bid templates and system approvals, turning documentation into a qualification step. Downstream manufacturers therefore rely on upstream suppliers for standardized datasets and verified inputs.

Implication for upstream suppliers: data must be treated as part of the product offering: stable technical datasets, environmental inputs, and certification-ready documentation that downstream partners can reuse.

Point of view: the value of chemistry is rising, but capture depends on “system influence + proof”

Decarbonization increases the value of advanced chemistry in construction. But it also increases the penalty of Decision-to-Purchase Gap: value is created upstream, while selection and margin are decided downstream where systems are specified, approved, and installed.

Winning is not about chasing volume. It is about turning performance into preference by combining system influence with proof in the segments where outcomes are priced.

How to win without moving downstream: four system-influence levers

Upstream players do not need to become installers or system houses to influence system selection. But they do need a structured path to be present where decisions are made. That typically uses four levers:

LEVER 1

Co-development with system leaders - designed into the system

Joint development and testing so your chemistry is embedded in qualified systems and harder to substitute without requalification.

Co-Development Makes Your Chemistry "Captive"

Joint Formulation & Testing

Work directly with the system leader to co-formulate and validate under real-world system conditions.

Define Boundaries

Map exactly where the chemistry works and where it fails. This is the basis for system trust.

Outcome: Qualified & Hard to Swap

You become a specified system component, not a commodity input that can be replaced for cost reasons.

Example — Renovation-Ready Adhesive System for Roofing Refurbishment

Substrate-tolerance testing, controlled open time, co-developed with a roofing system leader: clear “where it works / where it fails” guidance and prevention rules.

Outputs: an approved substrate matrix and full system qualification — chemistry designed into the build-up as part of roof system and not as a component.

Key Takeaway

Co-development turns a commodity input into a qualified system component that is costly and risky to replace.

LEVER 2

Specification and certification support - help systems win approvals

Fire testing support, durability/ageing protocols, emissions test packs, compatibility matrices, and technical dossiers aligned with certification norms.

Proof Packs Accelerate Approvals and Win Specs

Certification-Ready Testing

Run fire, ageing, and emissions tests aligned with the relevant standards before the specifier asks.

Complete Technical Dossier

Test reports, installation boundaries, and detailing guidance — packaged for the specifier's workflow.

Outcome: Faster Acceptance

Reduces buyer risk and shortens the approval cycle, making substitution harder after specification.

Example — Fire Stopping Sealant used in Data Centre Specs

Chemical company and system holder develop fire-resistance testing, long-term ageing protocols, and cable and pipes penetration guidance bundled into a single dossier for specifiers.

Result: system or bundle is accepted during the tender phase without need of re-testing components.

Key Takeaway

Certification supports is not marketing — it is a shortcut to specification and a barrier to substitution.

LEVER 3

Data as part of the product - make it proof easy to use

Consistent datasets and documentation inputs that partners can plug into declarations, EPD processes, and tender requirements.

Usable Data Becomes a Procurement Advantage

Standardised Upstream Datasets

EPD-aligned product footprint inputs, ready for tender submission — no reformatting needed by the buyer or system holder.

Clear Claims Guidance

Define exactly what can and cannot be stated, protecting buyers from compliance and liability risk in their bids.

Outcome: Default Supplier Status

Reduce friction in procurement; suppliers with usable and traceable data are preferred for high-risk applications.

Example — EPD-Ready Data Pack for a Façade Sealant Value Chain

Product footprint inputs, VOC/emissions data, Safety Data Sheet alignment, and traceability inputs for all product lifecycle — all formatted for downstream EPD compilation.

Result: the sealant supplier was included in the official bill of materials (BOM) without additional data requests.

Key Takeaway

In many bids, data is a gate. Suppliers that provide usable datasets become the default choice to avoid risks / liability issues.

LEVER 4

Adoption support - make performance repeatable in real conditions

Installation guidance and troubleshooting tools; formulation choices that tolerate site variability (humidity, temperature, substrate condition).

Adoption Support Protects Performance Where It Matters: On Site

Field Playbook & Troubleshooting

Structured guidance reduces installation risks and protects the system's reputation in real installation conditions.

Training Through Distribution

Short modules delivered through distributor and installer networks — no direct sales channel required, just visibility.

Wider Real-World Window

Improved formulation tolerance reduces sensitivity to humidity, temperature, and surface variation on site, increasing product (and system) resilience.

Example — Chemical Producer create Adhesives for Off-site Modular Construction

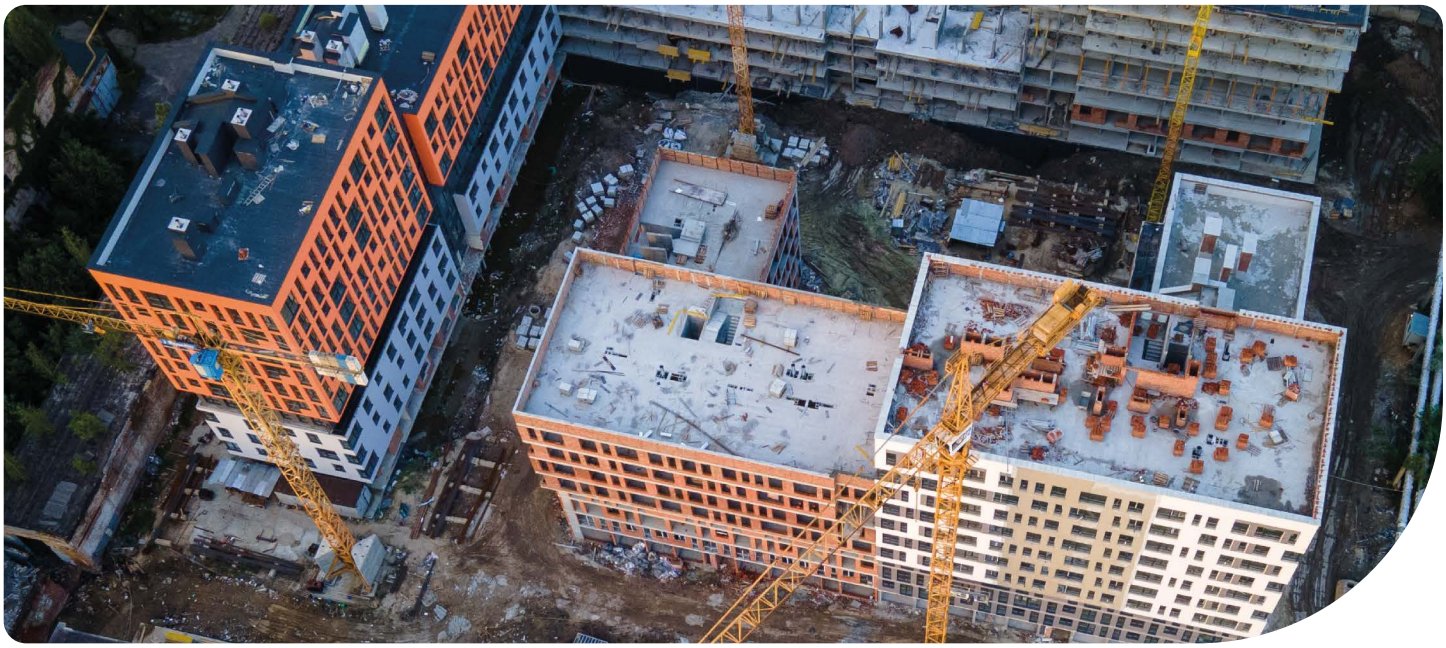
Surface-preparation protocol + humidity/temperature window for product applicability at OEM + cure guide + troubleshooting flowchart + compact training module — test at industrial scale, automatization.

Result: launch of serial production, strong partnership chemical & modular producer (OEM), difficult to replace by alternative products (especially tapes, etc.)

Key Takeaway

Adoption support protects the value proposition by ensuring the system performs in real conditions — not just in the lab.

Key idea: these levers reduce the Decision-to-Purchase Gap without vertical integration. They increase the likelihood that downstream systems are selected, installed correctly, and defended with evidence—making your chemistry 'designed in' and harder to substitute.



Decision matrix: how to prioritize and avoid the “shopping list”

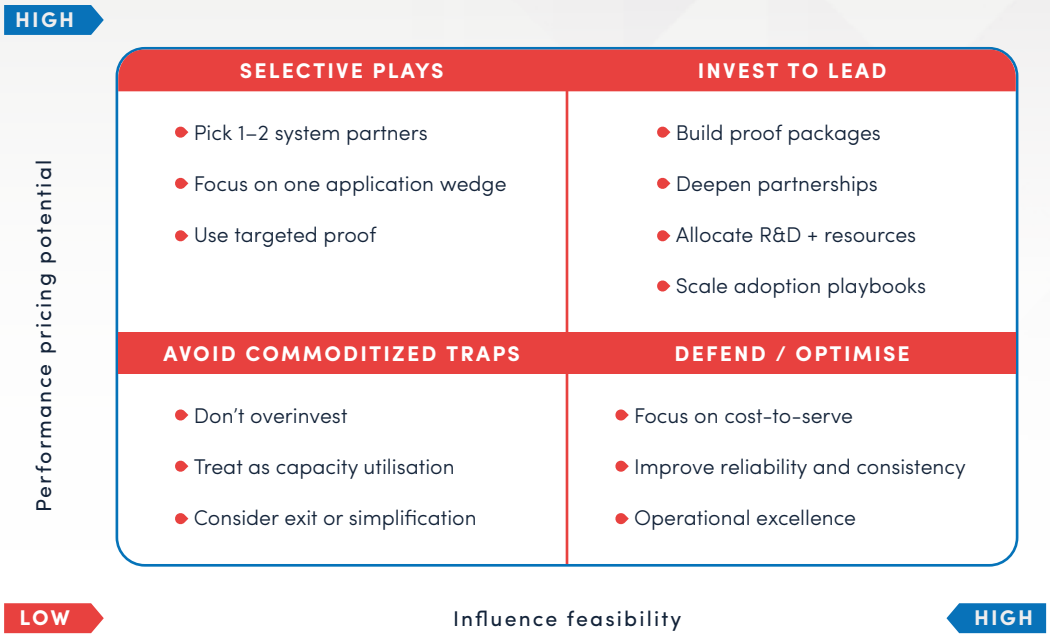
To keep strategy focused, score each target pocket on two dimensions:

1. Performance pricing potential: do buyers pay for outcomes (risk, uptime, durability, energy)?
2. Influence feasibility: can you realistically influence system selection through partners, tests, and data?

DECISION MATRIX:

Where to Play × Ability to Influence

Score each target segment on: (1) performance pricing potential (Y-axis) and (2) influence feasibility (X-axis). Prioritise the top-right; be selective in top-left.



Use this matrix to score target segments (e.g., renovation, data centres, infrastructure) on both axes.

Implications for decision-makers: what upstream chemical producers should do next

If the core constraint is the Decision-to-Purchase Gap, then the response cannot be "better sales execution" alone. It requires a deliberate shift in portfolio focus, evidence, and system influence—so you can capture premium value where the market pays for performance and proof.

Below are the practical implications for leadership teams.

Portfolio: re-balance toward performance-priced pockets

Make the portfolio choice explicit. Use the decision matrix (Section 3.5) to rank target segments and decide where you will lead, where you will selectively play, and where you will defend/exit.

- Scale where premium is defensible: renovation solutions that solve space/time constraints; critical buildings where safety and uptime matter; durability maintenance where whole-life cost drive decisions.
- De-emphasize commoditized traps: segments where switching is easy and price dominates, unless they serve as capacity utilization with clear cost discipline.

Outcome: a portfolio story that is easy to explain internally and externally: "Here is where we win and why (value)."

R&D: design chemistry for adoption, not only for performance

In these segments, performance must be delivered in real installation conditions. R&D priorities should explicitly include "ease of installation", "standardization" and building resilience as first-class requirements.

Outcome: fewer failures and less rework risk downstream—which is exactly what drives specification preference and premium pricing.

Evidence and data: treat proof as part of the product

As procurement demands more documentation, evidence becomes a commercial lever. Upstream players should build a consistent "proof package" that downstream partners can use.

Minimum elements (adapt to your product families):

- Standard test pack (performance + ageing/durability where relevant)
- Compatibility guidance (substrates, primers, interfaces; boundary conditions)
- Environmental datasets that support customer declarations and assessments
- Substance/compliance readiness (clear approach to sensitive substances where applicable)

Outcome: you become easier to specify and easier to defend—reducing friction for downstream partners and increasing preference.

Partnerships: build system influence without becoming a system house

The Decision-to-Purchase Gap is reduced through structured partnerships with the system players that actually win specifications.

A simple partnering logic:

- Identify the top 5–10 system decision nodes per segment (e.g., roofing system leaders, façade system leaders, firestopping leaders, precast/industrial building solution players).
- For each node, define the joint value creation: performance outcome + proof + adoption support.
- Formalize 1–2 "lead partnerships" per segment rather than spreading effort thin.

Outcome: your chemistry is designed into the systems that get specified, reducing substitution risk and improving price realization.

Go-to-market: sell outcomes and risk reduction, not molecules

Because the specifier is not the payer, your messaging must translate technical value into the language of each stakeholder:

- Owner / asset manager: whole-life cost, uptime, durability, energy outcomes, risk reduction
- Specifier / engineer: system performance evidence, test results, boundary conditions
- Contractor / installer: fewer steps, faster install, predictable performance, lower rework
- Manufacturer / system house: certification speed, differentiation story, documentation readiness

Outcome: alignment between what you sell and how decisions are actually made downstream.

Organization: reallocate resources to "system influence"

This shift requires capability allocation, not just strategy slides.

Typical capability moves:

- Strengthen application engineering (field reality + testing literacy)
- Create a small evidence/data team supporting technical + environmental documentation
- Align incentives so teams are rewarded for spec wins and system adoption, not only volumes shipped

Outcome: the operating model matches the market reality (system decisions + proof).

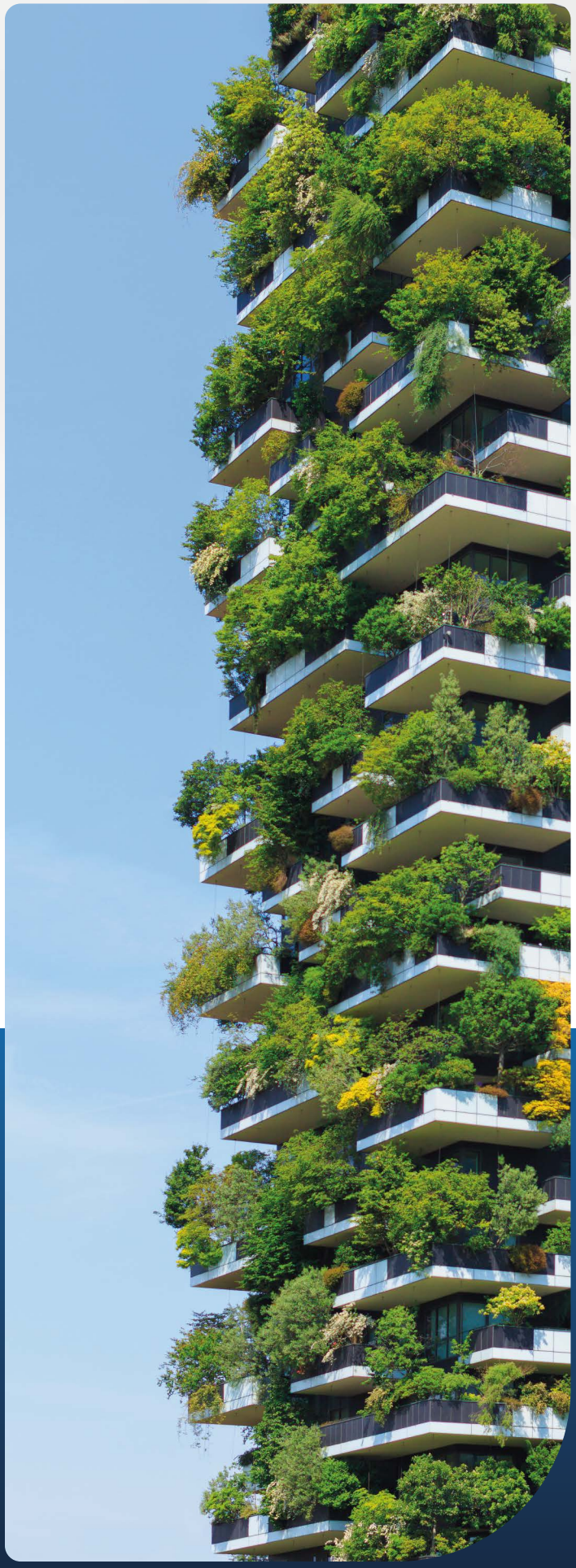
The Path Forward

Construction decarbonization is not just a sustainability theme. It is a market redesign. The segments that will keep growing—even through cycles—are the ones where owners and regulators demand measurable outcomes: better energy performance, safer buildings, longer life, fewer failures, and credible documentation. In those segments, the value of chemistry increases.

But capturing that value is not automatic. The decisive moment is not when an ingredient is sold; it is when a system is specified, approved, and installed. That is why the Decision-to-Purchase Gap becomes the strategic issue for upstream chemical producers: you can enable performance and still lose margin if you cannot influence system choice and proof.

The path forward does not require moving downstream. It requires a more disciplined operating model built around three priorities:

1. Focus on performance-priced arenas where customers pay for outcomes, not just volume.
2. Make proof part of the product so downstream partners can specify and defend system performance with confidence.
3. Build structured system influence through a small number of high-impact partnerships, not a broad and diluted effort.



Three moves in the next 90 days

1. Choose two priority segments where performance is paid for (e.g., renovation, data centers, infrastructure maintenance).
2. Identify the few players who decide system choice (the "spec + system" decision-makers).
3. Build one ready-to-use package per segment: evidence (tests + data) plus a joint pilot with a system partner.

Companies that move first will turn decarbonization into margin and growth, not just compliance—and will become preferred suppliers in the next generation of construction systems.

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Audrey Courant holds a bachelor's degree in management and consulting from Toulouse Business School. She started her career in the US automotive industry and has now 20 years of experience in heavy industries, including off-highway machinery and building and construction. She leads critical growth strategy engagements for materials manufacturers, suppliers, trade associations and the financial community. Clients value Audrey Courant's knowledge and leadership regarding distribution organization changes, digitalization trends and sustainability goals.

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