



Nailing the deal

How to successfully execute building, construction, and real estate technology M&A



Executive summary

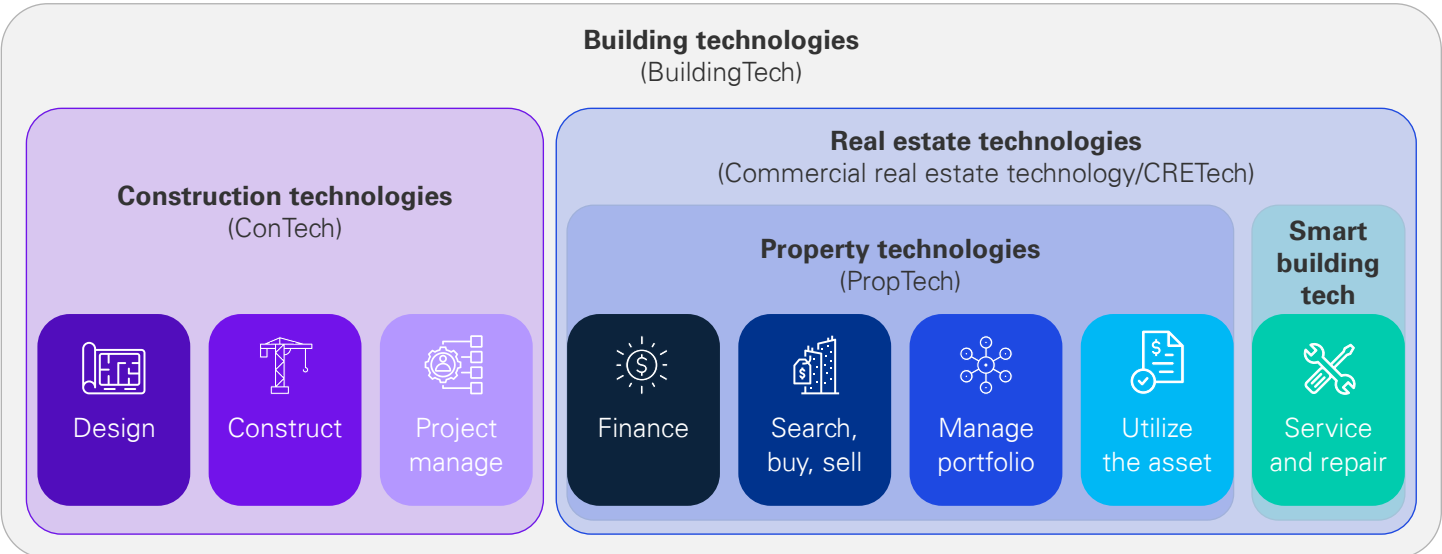
Engineering and construction is often labeled as being technologically unfriendly, or risk averse, but we see huge appetite for innovation that can help increase productivity, and profitability of job sites, the utilization and yield of real estate, and the efficiency and sustainability of building operations. Unfortunately, the on-the-ground realities of a job site and building operations, and the regulations surrounding them, are often underestimated by startup pitch decks and glossy sales materials.

As a result, the broadly defined “BuildingTech” category (see figure 1) houses hundreds of businesses with varying business models (from capital-intensive modular building factories, to virtual to-do lists, and everything in between), most of which provide narrow point solutions for a small set of use cases.

The pandemic, construction labor shortages, and improved technologies (such as 5G, edge computing, and artificial intelligence) have all been heralded as reasons for BuildingTech solutions to finally gain widespread adoption. However, most of these companies struggle to scale (with the exception of a few sizeable players in the construction project management and asset management spaces who are now eyeing expansions into adjacent verticals).

How should investors—both private equity and strategic— assess and support the success of their BuildingTech investments? In this paper we present a framework to organize the building technology landscape, an overview of investment patterns to date, and some insights from our Mergers and Acquisitions (M&A) advisory teams on what makes for successful BuildingTech M&A.

Figure 1: Breakdown of BuildingTech



Defining the BuildingTech field

The terms PropTech, ConTech, CRETech (and AECTech and Smart-building-Tech, etc.) all have slightly different meanings, but can be lumped together to form a nebulous cloud of hundreds of overlapping technology solutions (software and hardware) intended to improve productivity in building design, construction, and operation. To advise our clients, we use an eight-part framework that groups together companies with similar business models and end users to help understand the addressable market size and evaluate the competitive landscape.

We use these categories to help create order in a complex environment, with the understanding that there are still nuances and large variations within these. For example, “Construct” includes both a start-up selling Bluetooth-enabled chips that track a power drill’s location, and an off-site manufacturing company—two technology solutions with very different business models and capital requirements.

Figure 3: Definition of construction and property technology field

Category	Technology that involves...	Primary users/buyers of this technology
Design	Building plans and cost estimates, including through permitting and specifications	Architects, engineers, developers
Construct	Site-based activity, including off-site construction technology and safety solutions	Construction companies, materials manufacturers
Project manage	Tracking and documentation of construction activity including completion, costs, and compliance	Construction companies
Finance	Obtaining funding for building construction	Developers, investors, owners
Search, buy, sell	Matching buyers and sellers of real estate, including through better data	Investors, owners
Manage portfolio	Overseeing a set of properties, including rent management	Owners
Utilize the asset	Increasing use of and foot traffic into the property	Owners, tenants
Service and repair	Tracking building operations and performing or monitoring repair activity	Owners, building materials manufacturers

However, the categorization works because—to date—few companies have been able to scale and offer an end-to-end workflow that spans multiple categories. Challenges to end-to-end scaling include:

Risk aversion: Players prefer to work with trusted relationships and trusted brand names. For example, a “new” player entering the market—even if crossing over from construction into design—has to gain the trust of a new set of buyers and stakeholders whose primary objective is to deliver the project on time, in full, and safely. Why rock the boat for unclear benefits?

Fragmentation of the customer base: While real estate and construction contribute over 20 percent of U.S. gross domestic product (GDP)¹, this economic power (over \$4 trillion) is distributed over a large number of local real estate owners and developers², a majority of whom are local players focused on a narrow geography and/or asset class. As a result, the customer base for any BuildingTech solution is highly fragmented, creating a challenge for scaling.

Customization and localization: A hotel in Manhattan, an e-commerce warehouse, a secure data center, and a bridge in Alaska may all have the same high-level needs, but their on-the-ground realities of connectivity, access to labor, exposure to the elements, and even risk of theft and sabotage are very different, impacting both construction and asset management needs. These factors will impact the effectiveness of a tech solution that may look wonderful on paper.

Long development timeframes: Due to the challenges above, many new tech solutions have been launched with a narrowly focused, minimum viable product approach, adding features and capabilities per user requests after extensive field-testing. As a result, development timeframes are tied to project timeframes, and may be limited to receiving funding by only one sponsor.

As a result, the BuildingTech landscape is dotted by point solutions that narrowly target one step or need in the job site or building management lifecycle. However, the market tells us that the proliferation of point solutions is highly frustrating. We hear frequent complaints of “too much tech” from construction site and project managers: there are too many portals and data sources, many of which do not talk to each other (and cannot, because of security concerns or data ownership rights). As a result, we expect continued market pressure to develop solutions that begin to consolidate that workflow. One of our clients clearly described pushback from the field: “For every new technology or app that folks want to roll out, it needs to replace five or six existing steps or solutions, otherwise it will not be accepted.”



¹ National Association of Realtors, Nadia Evangelou, “How Do Home Sales Affect the Economy and the Job Market in Your State?” (June 2, 2022)

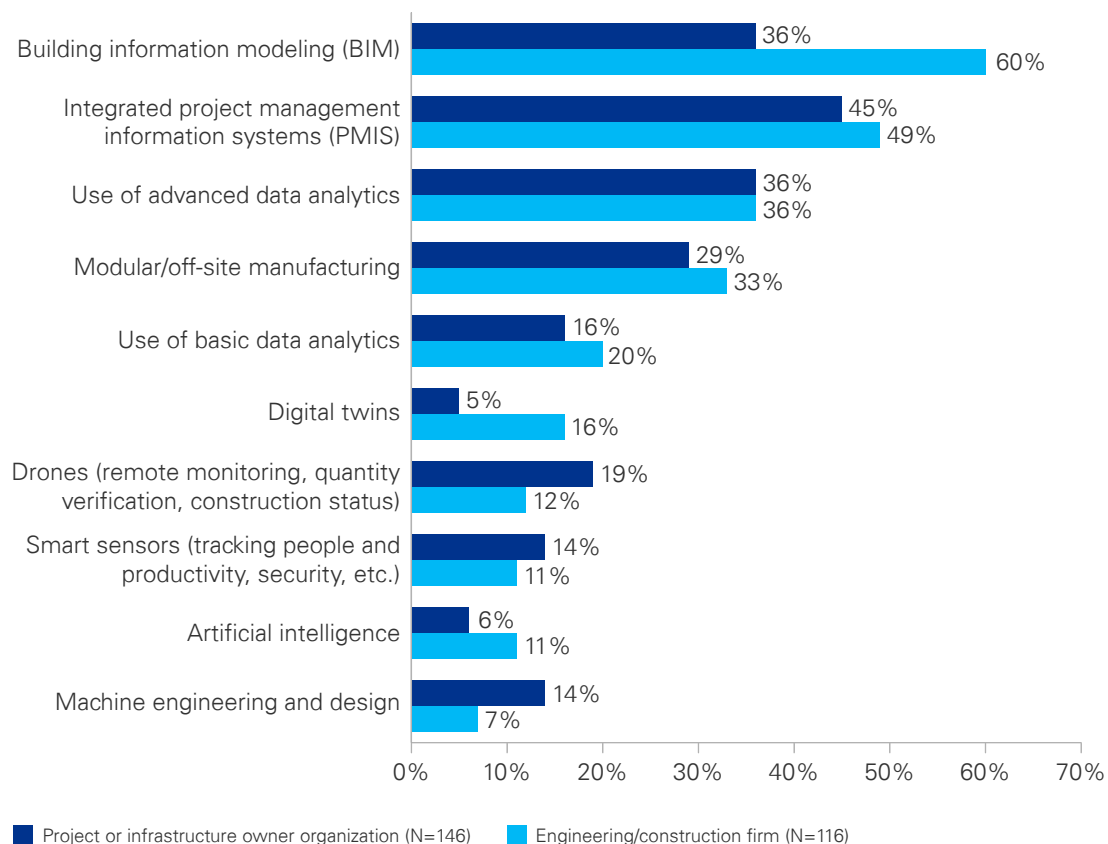
² St. Louis Fed, Federal Reserve Economic Data, “Value Added by Industry: Construction as a Percentage of GDP (VAPGDPC),” (2023)

Tech that appeals to construction companies

In our [2023 Global Construction Survey](#), we asked both owners and engineering/construction companies about their use and interest in a range of different technologies, some of which would include BuildingTech categories. While these respondents cited awareness of many different technology types, their interest is fairly concentrated in building information modeling, project management information systems, and data analytics capabilities:

Figure 4: Extract of Global Construction Survey results

Technologies rated as driving “greatest ROI for my company”

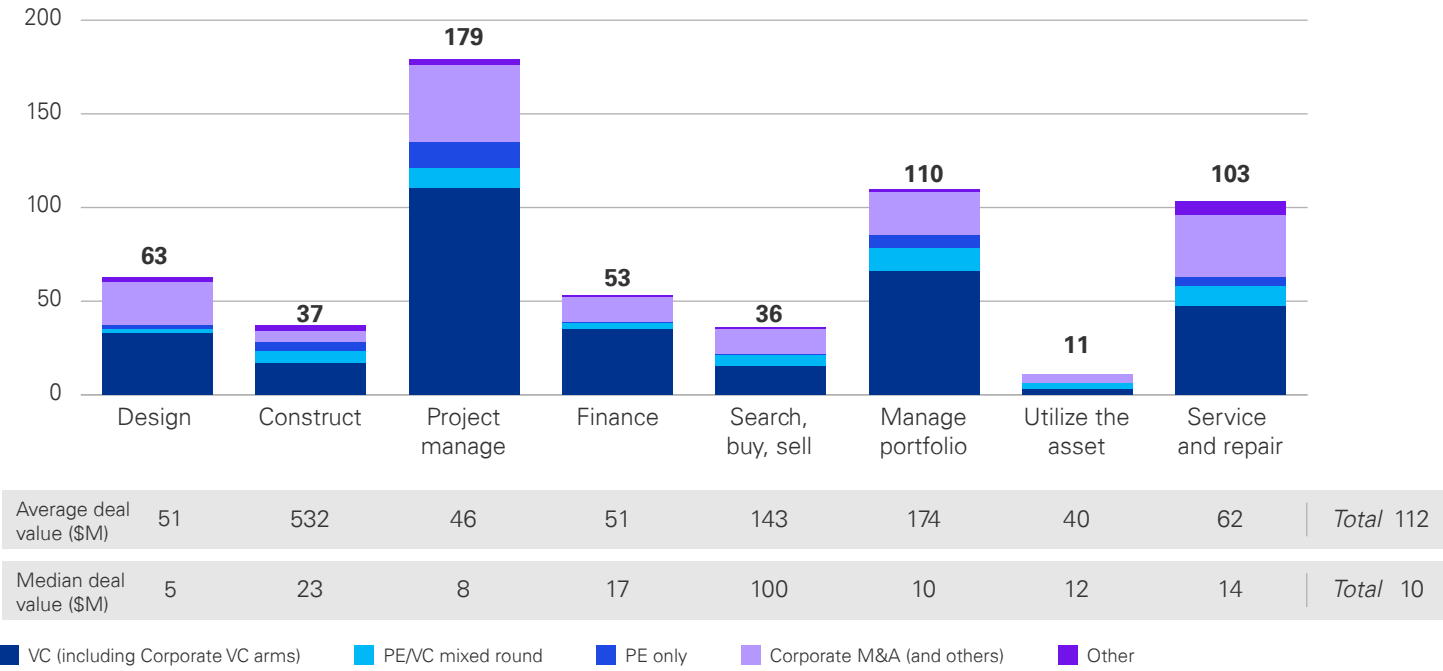


Notes: Multiple responses allowed, not all answer choices displayed.

Investment patterns

For this paper, we developed and analyzed a database of M&A and investment transactions in the BuildingTech space from 2018 to mid-2023, including both software and hardware technologies, that touched any (or multiple) of the eight categories we described earlier. This identified 592 deals, relating to 568 distinct target companies.

Figure 5: Number of deals by category, by source (2018-2023)



The most populated category is “Project Manage,” followed by “Manage Portfolio” and “Service and Repair,” which benefit from having some of the lowest barriers to entry (most asset-light) and some of the most visible pain points of the building lifecycle.

“Manage Portfolio” is a particularly bright spot in BuildingTech that includes some of the highest deal valuations (e.g., AirBnB). In this category, there are a number of asset-light solutions (such as web-based platforms) that require no interaction with the physical building, making them easier to invest in and easier to scale.

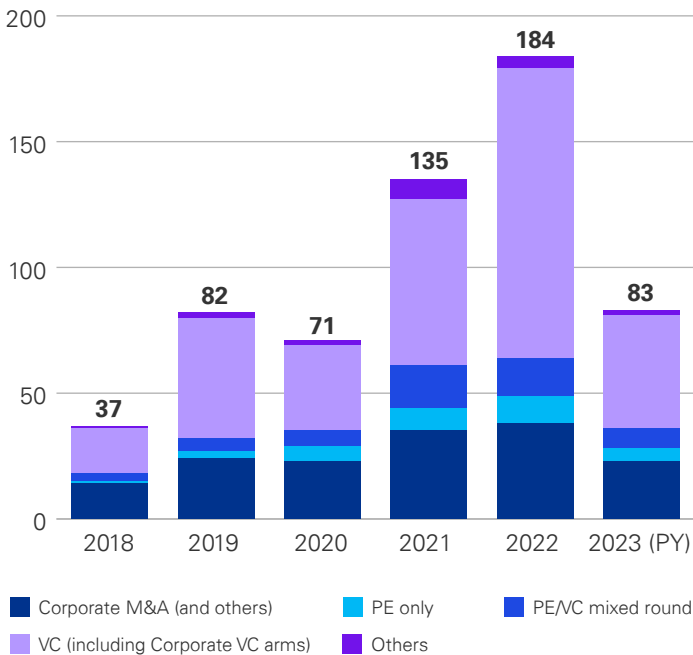
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Given the supply and affordability issues prevalent in the market today, new products that enable wealth creation for renters through partial equity ownership is an area that has huge potential to grow and attract more opportunity and investment in real estate.”

—Ronan Curran, Managing Director, PropTech Deal Advisory, KPMG LLP

Readers will notice that all investor types play across all eight categories in approximately equal shares, but within the data it is clear that individual investors prefer to play within a handful of technology verticals. Even investors specializing in property and construction technology (such as Metaprop, Camber Creek, and Fifth Wall, among others) have a concentration of deals in one or two areas with lighter participation in other areas. This may be part of a strategic plan of consolidating multiple point solution technologies into a larger, more comprehensive solution.

Figure 6: Number of deals by funding source over time 2018–2023



The industry is fairly new—2017 and 2018 were the two years with highest “birthrate” of BuildingTech companies that have received outside investment. As a result, we see venture capital (VC) involvement rising from 40 percent to over 60 percent of all deals in the heady days of 2022. Over time, we note an upswing in private equity (PE) activity, and we expect to see PE gain prominence as a funding source as businesses mature, and check sizes correspondingly increase.



Corporate M&A has also been increasing through the time period, with 2023 on track to meet 2022 peaks despite a more subdued deal market. This suggests a long-brewing shift from viewing innovative technologies as a threat, to skeptical acceptance that they could represent a competitive advantage in a labor-constrained sector.

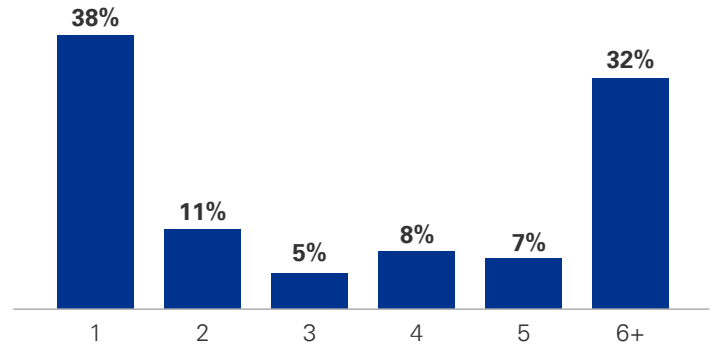
Competitive advantage, or common standard?

Among corporate investors, one question is hotly debated—are we better off owning that business, investing in it, or just buying its wares? On one hand, bringing the new technology in-house can drive competitive advantage, through improving the product, the service, or the sales win rate, or it could help retain labor and improve productivity. On the other hand, the fragmentation of decision making at the construction project- or building level means that an in-house solution may struggle to gain the required scale and momentum, even within the corporate owners’ own four walls. In those cases, maintaining a minority investment stake—and encouraging other players to participate—can help drive that business toward a “common standard.”

In our market analysis, most corporate players prefer the safe route of opting to buy a subscription or making a minority investment (through their ventures or technology arms), a statistic reflected by the deal data, in which approximately two thirds of 2022 deals involved more than two parties.

However, there is a perspective among industry participants that this approach is stifling innovation, with companies focusing on small, incremental improvements to survive the challenging day-to-day economics (especially

Figure 7: Number of investors participating in a deal, 2022



Note: Totals may not equal 100 percent due to rounding.

in the current fundraising environment). Funding from a strategic parent may provide a longer runway for companies to develop more significant innovation, especially if the funding is augmented by access to industry expertise and customer feedback.

Funding from a strategic parent may be particularly important for younger, capital-intensive BuildingTech businesses (including hardware technologies, or those supported by extensive research and development) that may struggle to attract PE and VC investors with traditionally limited patience.



Some words of caution about investing in BuildingTech

This could be the golden age for BuildingTech investment: end-markets struggling with labor shortages and stagnant productivity, construction and real estate companies cautiously embracing new technologies, and hundreds of startups eager to scale.

In our experience supporting companies through BuildingTech transactions, we have identified some common misconceptions to be aware of in assessing potential investments:

1

Misconception:

The “Tech” in BuildingTech unlocks SaaS-like valuations

In reality: BuildingTech is often characterized by high acquisition costs and high churn rates (neither of which are good for SaaS valuations). This is because technologies need to be resold into every project or building as multiple stakeholders (owner, construction company, engineers, facilities managers, servicing company, etc.) come to an agreement on what to use.

Example: Recent construction slow-downs are putting ConTech annual subscription plans pricing structures under fierce scrutiny by construction firms seeking to reduce selling, general and administrative expenses.

In your deal model: Applying SaaS-based assumptions may risk overvaluing the business.

2

Misconception:

At 20 percent of GDP, the total addressable market (TAM) for BuildingTech is huge

In reality: The nuances of construction—and the dramatic differences between vertical and horizontal construction, new versus repair-and-replace, public versus private, let alone building type, regional regulations, and the like—make it challenging to deliver on “one size fits all” claims. New technologies may find a low ceiling to market size, but on the other hand, effective solutions are spread by word of mouth and can take over substantial share.

Example: Tracking technologies—which can help locate construction crews, workers, tenants, and visitors within a building or site—have to define their TAM by building type and site location. In vertical settings (e.g., high rises), Bluetooth is preferred as its shorter range allows for more precise location identification; in horizontal settings (e.g., large campuses), cell phone technology will work better—unless of course, there is no signal and GPS is required. In data centers and other mission critical buildings, outside signals may not penetrate thick walls and require use of indoor Wi-Fi. One size does not fit all.

In your deal model: Exaggerated TAMs may be indicative of poor product-market fit, rather than a diamond in the rough.

3

Misconception:

The more features and frills, the better the product

In reality: More is less, as construction and real estate companies are looking to replace and not add to their technology stack. Construction foremen are pushing back on the number of apps and portals to log into; as are building facilities managers, as well as building tenants.

Example: Some promising field service management apps rely on voice-to-text capabilities to reduce the burden on technicians, or the ability to scan QR codes that linked to web forms. Unfortunately, in noisy environments or those with poor reception—such as on the rooftop, in the basement, or in the elevator shaft—these features will not work. Simpler solutions, such as check-mark based to-do lists that automatically generate text for site visit reports, seem to be gaining the upper hand in this space.

In your deal model: Revenue from up-sells and pro features may not materialize as planned.

4

Misconception:

Customer diversification is healthy

In reality: While a majority of companies received funding from multiple sources (see figure 7, page 12), strategic customer partnerships are critical in the long term. This is because it takes several projects for new technologies to “get it right” and start delivering value—and that learning curve is most effectively approached, and financed, over a set of similar projects.

Example: In modular construction, we were told, “We lose money on the first three to five projects—things go wrong, it takes more time than expected, etc. But we lose slightly less money over time, and by the fifth we have it figured out—that’s why a long term partnership between construction company, owner, and technology company is key.”

In your deal model: Customer diversification (in the early innings of company growth) may reflect lukewarm reaction and “testing out” of the product, rather than fully fledged customer commitments. On the other hand, revenue projections associated with a focused effort on a few customers/partners should show profitability improvement over time.



Leading practice

Effective ConTech/PropTech investments have a few characteristics:



Tech + Building
lenses

Much like the need for both technology and construction expertise in the leadership team, the diligence should include both a product technology assessment as well as an understanding of how the product will support the building across its lifecycle.



Realistic, not
maximal, go-to-
market planning

The investment case needs to clearly outline who will buy the technology, who will use it, and what influencers need to be brought on board. This could span across safety teams, risk teams, insurers, regulators, building owners, architects/engineers, and distributors, etc. Touching all these market participants comes at a cost but can be a force multiplier if properly accessed.



Detailed integration
planning

Be prepared for the culture shock of a tech-first start up meeting a construction or manufacturing parent. Not only will pay scales and office perks likely need to be realigned, but also the approach to completing work (waterfall versus agile), project staffing approaches, business “clock speeds” and decision-making authority will need to be synchronized in addition to the traditional integration challenges across human resources, information technology, finance, and the like.

How KPMG can help

The KPMG Engineering and Construction Deal Advisory and Strategy team support clients in all stages of M&A transactions, from diligence through to integration/separation planning and execution. Our team of dedicated professionals has a deep understanding of the construction ecosystem and its nuances, as well as functional experience in deal dynamics.

Our teams also support Engineering and Construction firms with performance improvement and transformation efforts. This includes helping newer BuildingTech companies achieve their growth ambitions, or helping established building, construction and real estate companies invest in—or acquire and integrate—new technologies.

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Managing Director, Advisory

Serena helps clients design and execute winning growth strategies to get and stay ahead of technological disruptions, including adopting ConTech and PropTech solutions. She works with clients across the building and construction value chain, with a focus on building materials manufacturers. As the US lead for Deal Advisory & Strategy in construction, she supports clients with both organic and inorganic paths to growth.



Ronan Curran

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Ronan helps clients execute their M&A strategies, both from buy- and sell-side perspectives. He advises clients across all real estate verticals, including technology and services, and has spoken at various industry events on latest trends in real estate technology. He has supported his clients through transactions valued at more than \$75 billion to date.



Joaquin Gentry

Managing Director, Strategy

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