

constructsteel

Monthly update for the construction industry
January 2022



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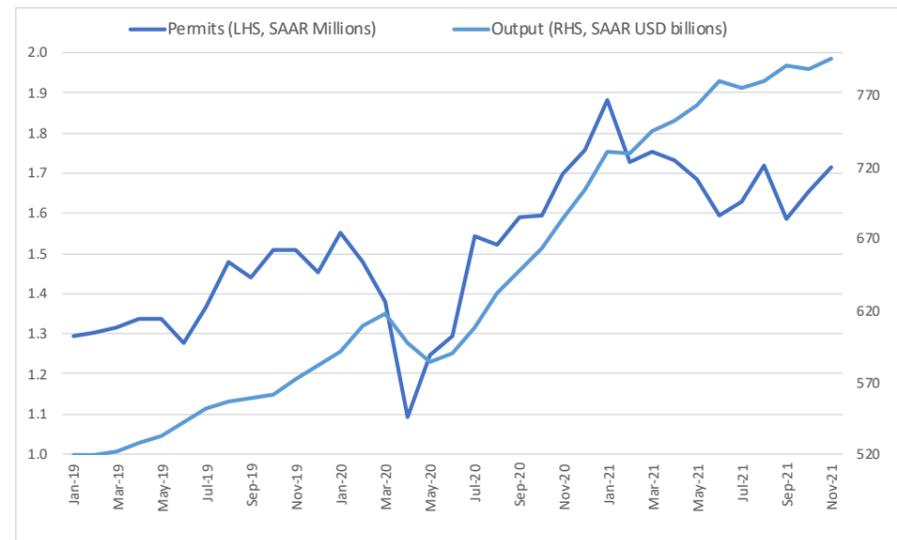
Construction market trends

United States Supply shortages constraining residential supply but demand strong; conditions positive in non-residential sector with output yet to bottom.

Private residential up 0.9% m-o-m (16.3% y-o-y); building permits up 3.9% m-o-m (1.2% y-o-y). Private non-residential up 0.1% m-o-m (6.7% y-o-y); Architecture Billings Index (ABI) falls to 51 in November from 54.3 in October (>50=expansion).

Private residential

Source: US Census, American Institute of Architects

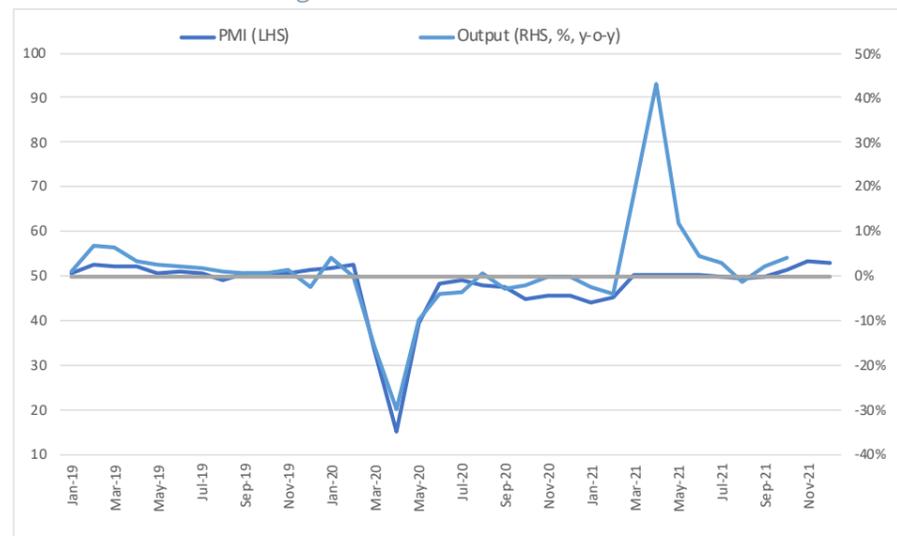


Europe Construction continues to pick up.

The IHS Markit Eurozone Construction PMI dipped from 53.3 in November to 52.9 in December (> 50, expansion). Eurozone construction up 1.6% m-o-m in October (4% y-o-y); civil up 0.5% m-o-m (3.8% y-o-y).

Eurozone construction output vs PMI

Source: Eurostat, TradingEconomics



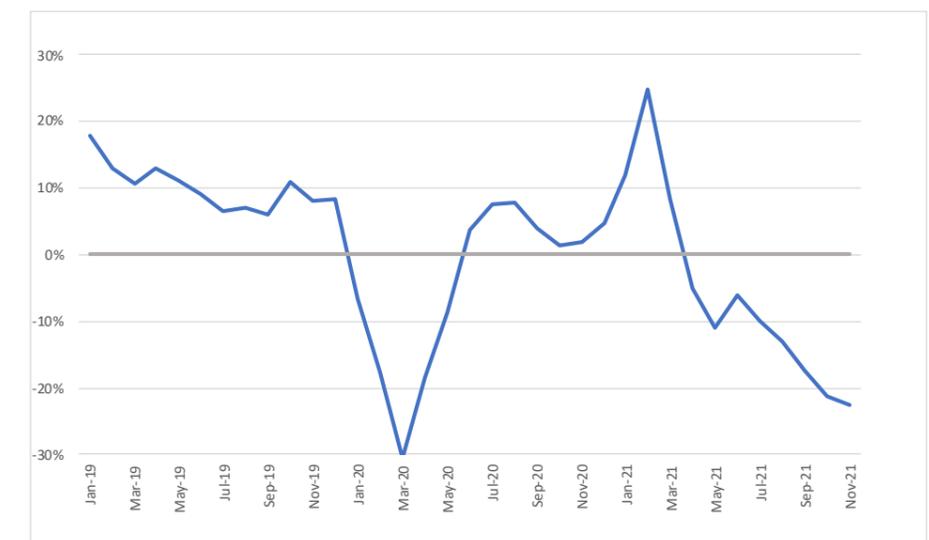
Knowledge partner:
McKinsey & Company

China Further declines in the residential property sector.

The 3 month moving average y-o-y growth in floor space started fell -21% in October; floor space sold fell -17% y-o-y.

Floor space started (3 month moving average, %, y-o-y)

Source: National Bureau of Statistics of China

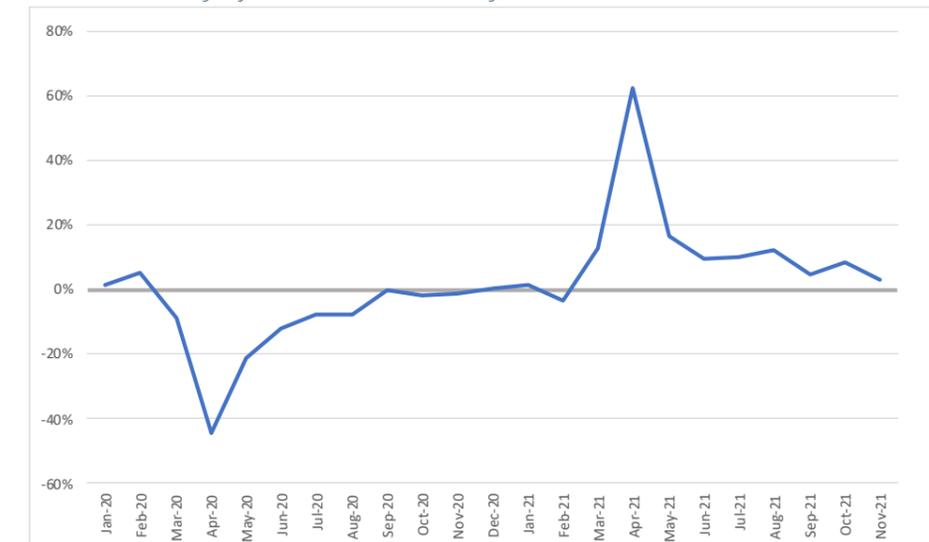


India Core sector growth weaker than expected in November with heavy rain in parts of Southern India impacting activity.

Weighted average of eight core industries output up 3.1% y-o-y in November; production of steel up 0.8%; cement down -3.2 y-o-y.

Weighted average of eight core industries industrial production (% y-o-y)

Source: Ministry of Commerce & Industry, India



Special topic: Indian infrastructure growth

A story of continuous progress and transformation



Sanjay Jayram

Executive Vice President – Sales & Marketing



To achieve India's ambitious goal of becoming a US\$ 5 trillion economy by 2025, strong infrastructure growth is essential. Therefore, the infrastructure sector is getting foremost focus and India is creating new and upgrading existing infrastructure. After shock-waves of COVID-19, the economy is trying to come back to normalcy, and the focus is to fast-track the under-construction projects and to start new work.

India's infrastructure bottleneck is a primary constraint to improving its global competitiveness, as measured by the World Economic Forum's Global Competitiveness Index. India is currently ranked 70 out of 140 countries for infrastructure quality in the Global Competitiveness Index.

The government of India has integrated various infrastructure projects under its infrastructure vision 2025 which are aligned with UN'S 2030 Sustainable Development Goals to improve living standards of people resulting in a growing, sustainable and inclusive economy. The Indian Government has launched the National Infrastructure Pipeline (NIP) to invest US\$ 1.5 trillion in infrastructure by 2025.

NIP incorporates initiatives on housing (Housing for All), roads (Bharatmala), ports (Sagarmala), railways (dedicated freight corridors, metros, and bullet train), and airports (Udaan). During the fiscals 2020 to 2025, sectors such as energy (24%), roads (18%), urban (17%) and railways (12%) amount to ~71% of the projected infrastructure investments in India. NIP has a total of 9019 projects (Greenfield or Brownfield, under conceptualisation or under implementation or under Development - of project cost greater than Rs. 100 crore) worth US \$ 1959.98 Billion of which 2443 projects are under development.

It is forecasted that the infrastructure sector in India will grow at a CAGR of approximately 7% from 2020 to 2025 (Source: Mordor Intelligence). Foreign investments are crucial for India as the country for overhauling its infrastructure sector such as ports, airports, and highways to boost growth. Infrastructure is one of the sectors which gets the highest foreign direct investment (FDI). The Asian Development Bank (ADB) has announced a USD 100 million funding for the Indian infrastructure sector through the government-promoted National Investment and Infrastructure Fund (NIIF).

For the latest fiscal (2021), infrastructure activities accounted for 13% share of the total FDI inflows in India. FDIs in the construction development sector (townships, housing, built up infrastructure and construction development projects) and construction

(infrastructure) activities stood at US\$ 26.08 billion and US\$ 24.72 billion, respectively in FY'20-21. It is evident from these huge investment plans that the Government of India is actively striving towards stimulating construction activities in the country.

On the 75th Independence Day of India, the Prime Minister of India launched a National Master Plan GatiShakti (Speed & Power) for Multi Modal Connectivity – essentially a digital platform to bring sixteen Ministries including railways and roadways together for integrated planning and coordinated implementation of infrastructure connectivity projects. The National Master Plan (NMP) will employ modern technology and the latest IT tools for coordinated planning of infrastructure.

After the National Infrastructure Pipeline (NIP), this is a long impending reform in the direction of infrastructure development in India. NMP is a mark of paradigm shift and synchronous decision making to create a world-class, seamless multi-modal transport network, on the back of which India will be transformed. This will ensure unprecedented focus on infrastructure through a holistic outlook - instead of planning and designing separately in silos, the projects will be designed and executed with a common vision. Improved connectivity will make Indian businesses more competitive.

India's transport sector is expected to grow at a CAGR of 5.9 percent thereby becoming the fastest growing area of India's infrastructure sector. Transport includes well-developed roads and highways, a widespread railway network, fast-growing aviation and developing ports, shipping and inland waterways infrastructure.

Indian railways network is undergoing dynamic transformation, e.g. constructing dedicated freight corridors to support freight movements. Setting up of world-class cargo operations, and modernisation and up-gradation of railway stations are also underway. In FY21, the Indian Railways recorded the highest loading in freight transportation of 1,232.63 million tonnes generating the freight revenue of US\$ 15.84 billion.

Highway construction in India increased at 17% CAGR between FY16-FY21. Despite pandemic and lockdown, India has constructed 13,298 km of highways in FY21. The Roads & Highway sector is expected to account for 18% capital expenditure of NIP over FY 2019-25. In the sector, the Government of India's policy to increase private sector participation has proved to be a boom for the infrastructure industry as many private players are entering the business through the public-private partnership (PPP) model.

There are new policies and trends which will boost steel intensity and demand e.g. mandatory crash barriers alongside highways, road stretches on high altitudes and industrial zones, shift to continuously reinforced concrete pavements(CRCP) and concrete roads due to lower maintenance cost and higher life. Also, there is increasing focus on steel bridges due to higher strength, durability and lifecycle value. These trends also project requirement of high strength as well as corrosion and weather resistant steel for bridges.

India is expected to become the third-largest construction market globally by 2022. Also, adoption of modern technologies and tools, and digitisation will increase synchronisation, coordination, speed and efficiency of developing infrastructure.

The construction and infrastructure share in steel demand is 60-65% in India. Therefore, this infrastructure transformation journey will surely boost steel demand in India and it is projected to grow at a compound annual growth rate (CAGR) of 7 to 7.5% between fiscals 2022 and 2025.

Technical trends: Infrastructure investing to build a net-zero-carbon world

McKinsey's Global Infrastructure Initiative Voices on Infrastructure publication



Infrastructure investors face the opportunity—and the challenge—of helping Europe meet its decarbonisation goals. Their focus is to protect past investments, future-proof current ones, and find the next great project.

Recent analyses suggest that meeting the European Union's net-zero emissions targets by 2030 and 2050 is possible—but daunting. Progress in some areas, particularly in replacing fossil fuels with renewable-energy technologies, has laid an important foundation. From here, private investors have a significant opportunity to help shape the progress made in the sectors critical to decarbonisation.

For their part, asset managers are increasingly being challenged by their limited partners (LPs) to generate environmentally friendly investment opportunities and divest polluting investments—all without compromising returns.

As investors prepare to take part in a pool of opportunities that reaches into the tens of trillions of dollars, they need to carefully explore large-scale investment opportunities for both new and familiar technologies, often in new constellations and structures. At the same time, they need to take stock of, and reconfigure, their existing portfolios to make sure they manage technology and regulatory risks while continuing to be part of building a net-zero world.

McKinsey analysis suggests that achieving net-zero emissions in Europe will require approximately \$28 trillion in investment—50 percent of which is directly relevant for infrastructure investors. Upgrading existing assets and allocating capital to the right infrastructure projects—past, present, and future—has never been more important. Those who get it right have the opportunity not only to profit, but also to play a critical role in helping mitigate and adapt to climate change.

Investment opportunities

Generating the infrastructure needed for decarbonisation of key industries will require massive capital reallocation; more sustainable materials and production methods; and significantly expanded green technologies, including, crucially, renewables. The required investment will likely exceed public funding capacity, opening the door for private capital—which would give investors a critical role to play in helping to shape the future of sustainable infrastructure.

There will be challenges. The successful expansion of renewables, which is the current mainstay of sustainable-infrastructure investing, could lead to a reduction of feed-in tariffs and a reassessment of offtake arrangements. And pressure on returns, already palpable, may intensify as war chests grow faster than investable projects. According to McKinsey analysis, average return spreads in mature markets have already decreased to approximately 1 percent. In Germany, with more than 49 gigawatts of solar already installed, we believe wholesale prices may decrease by approximately 40 percent by 2030, heavily influenced by intense competition for tendered volumes.

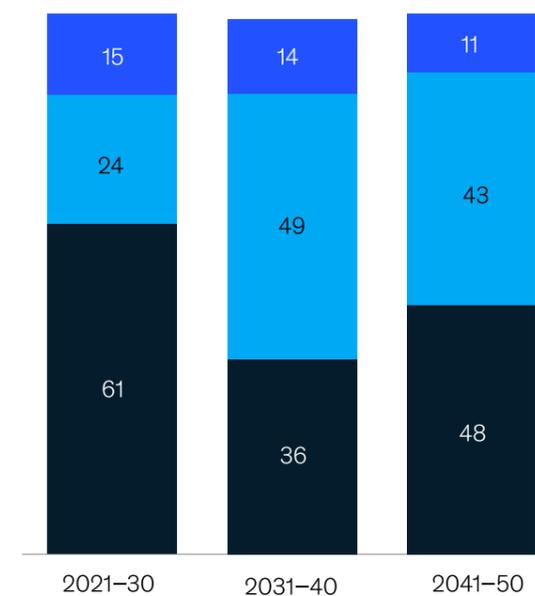
McKinsey estimates that about half the required investments do not have stand-alone investment cases today (exhibit). On the one hand, rapidly evolving regulatory frameworks may well introduce policies that bolster these investment cases. On the other, regulatory decisions may have a negative impact on infrastructure operators' portfolios, with return and risk of specific assets susceptible to changes in carbon pricing, tariff preferences, and other factors.

About half the investments required to meet emissions targets do not have positive stand-alone investment cases for their stakeholders.

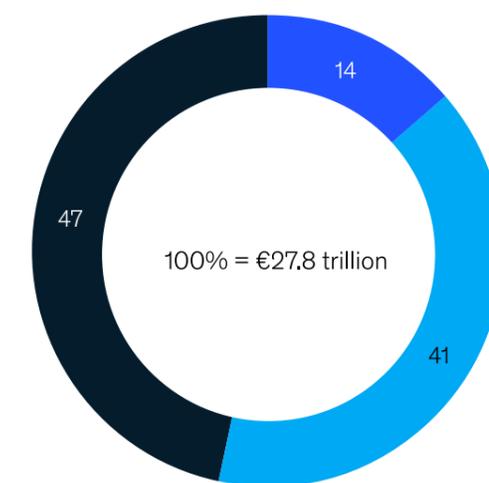
Emissions-reduction investments by type of investment case for individual stakeholders

● No stand-alone business case² ● Stand-alone business case² ● Infrastructure³

Total capex¹ in EU-27 within time bracket, %



Total capex by sector, 2020–50, %



Note: Figures may not sum to 100%, because of rounding.

¹Capital expenditures.

²Investment cases that are net-present-value positive. For assumptions (including weighted average cost of capital and lifetime expectancy), see technical appendix.

³As an enabling public service, infrastructure will be required to undergird projects even when they have achieved a stand-alone business case.

Maximising investment opportunities

Infrastructure investors can start by building an in-depth understanding of the core technologies for a net-zero world, including hydrogen, biofuels, heat pumps, and carbon-capture technology. Investors will want to carefully consider where to play on the risk-return scale, bearing in mind how the options might resonate with LPs: demand for riskier sustainable portfolios may not always align with LPs' risk appetite, requiring careful design of investment products and funds. Investment strategies should also consider how technology deployment is expected to evolve over time.

Investors will want to define how to engage with these technologies, with three common approaches in mind: buying a portfolio of existing assets, adding individual projects to an existing portfolio, or building a portfolio from scratch—that is, greenfield building of the physical asset, not the investment vehicle.

As markets mature, the pricing of existing sustainable options is set to escalate, potentially making the economics of bolt-on acquisitions challenging. For example, McKinsey analysis finds that renewable-energy valuations increased from a multiple of about 10 in 2019 to a multiple of about 15 in 2021, growing faster and achieving higher multiples than comparable assets in the same time frame.

However, as currently seen in renewable energy assets, a more gradual approach of expanding on an existing portfolio of similar assets may face cost challenges as asset classes appreciate rapidly, and limited market opportunities may not be conducive to the transition speeds LPs are looking for. Opening up greenfield opportunities can be exciting and is increasingly being pursued by leading infrastructure investors, but building something from scratch is also resource-intensive and risky—which not all LPs are looking for.

Finally, investors can broadly engage with a variety of stakeholders to fully understand the scope of possibilities:

- Policy makers: Ongoing engagement will be key in understanding and monitoring policy developments critical for managing risk and identifying new opportunities.
- Sustainable LPs: It's crucial for investors to understand the expectations of these LPs regarding sustainability targets, risk appetites, and implications for returns.
- State-owned enterprises and industrials: Projects that are still in pilot phases can offer investors firsthand understanding of emerging technologies and markets while allowing them to position themselves as partners of choice as these technologies mature.

Existing portfolios

Many of today's infrastructure-investment portfolios include high-emissions legacy assets. However, portfolio-wide decarbonisation targets are increasingly common, with more than \$43 trillion in assets already managed under the net-zero asset managers initiative. Some leading LPs have gone a step further and locked out certain sub-sectors, such as coal. Others go so far as to exclude high-environmental-impact energy sources such as oil sands and arctic exploration.

McKinsey estimates that the value of assets stranded as a result of the transition to net-zero emissions could total €215 billion. To transition smoothly, investors will need to devise strategies for smart and timely disposition of outdated assets, as well as innovative options for repurposing or generating other forms of value from assets such as land

value. For example, Europe has already reduced more than 120 metric megatons per year of refining capacity. While about 80 percent of that reduced capacity has been repurposed, these efforts have focused on conversion to terminals—an outcome that does not move the needle in achieving net-zero ambitions.

However, executing repurposing plans is not always straightforward. While some asset managers have been creative in repurposing assets, potential is limited. Retrofitting is not always cost-effective, particularly in especially old or outdated assets. And some solutions that have proven popular, such as converting refineries to biofuel plants and storage terminals, have patchy demand and thus can be undertaken profitably only a limited number of times. The business case for everything from refurbishment to land restoration, as well as the effects of decisions on the local workforce and community, will play into how investors unwind unsustainable legacy assets.

Protecting and advancing existing portfolios

Investors can start by conducting careful portfolio diagnostics to assess transition risk, understanding that risk on an asset-by-asset basis, and identifying potential for sustainable improvements through process efficiencies, alternative feedstocks and power sources, and redesigned products. Investors that closely monitor green-tech penetration will be best poised to determine optimal holding and exit timelines for legacy assets.

Leading investors may also explore innovative business models by aggregating sub-scale assets into portfolios large enough to generate cost-effective sustainability upgrades. In this way, savings on an individual home level—for example, environmental and cost savings from installing heat pumps—can be bundled into an investable option at the right scale.

Finally, investors can play an important role by working with public sector and other stakeholders to draw up socially balanced transition and wind-down plans for fossil assets. The private sector's involvement in the energy transition can help maintain energy security by supporting smooth transitions, and collaboration with private investors will be key to fully understanding the cost of certain regulatory measures and to developing the ability to finance new, sustainable development at reasonable costs. At the same time, certain investments that are critical to decarbonisation, such as power transmission and EV-charging networks, will require close collaboration between the two sectors.

Investors in infrastructure investments are, by nature, in it for the long haul. That's a challenge at a time when the world is rapidly changing, entire technologies are being introduced and retired within a decade, and emissions targets make certain innovations a must. Infrastructure investors must plan ahead for anticipated challenges to infrastructure investment opportunities, such as by developing a deep understanding of emerging technologies, both so they know where to find their next investment opportunities and so they can seek ways to future-proof existing assets. They can also carefully manage current assets to support modernisation where possible and cost-effective wind-down of legacy assets where not.

The fundamental reconfiguration of energy and transportation systems that is currently under way has created an urgency for change. Question marks around the long-term sustainability of certain technologies combine to create an uncertain but exciting future—one in which investors can play a crucial role.

Construction steel news headlines

construction market and regulations

Total construction spending in the US increased in November compared to levels in October and a year earlier. Construction spending in November totalled US\$1.63 trillion at a seasonally adjusted annual rate, 0.4% above the October rate and 9.3% higher than in November 2020. Gains in private residential and non-residential projects outweighed decreases in public outlays. Public sector investments were down in part because Congress has failed to provide funding so far for the Bipartisan Infrastructure bill enacted last year. [Link](#)

An increasing number of urbanisation projects will drive growth in the construction sector in the Middle East. Whilst the Covid-19 pandemic has slowed down project spending in the region, the ongoing modernisation of populous regional centres such as Dubai, Riyadh, and Cairo since the oil price crash of 2014–15 will drive demand for construction. [Link](#)

Turkish builders have postponed some projects and slowed the pace of others after a currency meltdown sent construction costs soaring. The industry, which accounts for about 5% of economic output, may cut jobs and is likely to shrink this quarter as builders await more stable prices, after the sector contracted 6.7% year on year in the third quarter. Costs for rebars, concrete and other construction materials have jumped more than 40% in the past three months. [Link](#)

Rental companies overtook contractors as the biggest buyers of construction equipment in Europe, in terms of volume. Rental companies bought 37.4% of the construction equipment sold in Europe in 2021, followed

by contractors who took a 37.1% share. In value terms, contractors are still by far the most significant equipment buyers, accounting for some 42% of the value of equipment sold in Europe. [Link](#)

Five UK-based modular building firms have teamed up to promote their interests through a new trade body. Make Modular has been set up under the auspices of Make UK, which used to be the Engineering Employers' Federation. The modular building lobby has chosen to align with a manufacturing trade organisation rather than a construction or house-building federation. [Link](#)

Building materials & construction technologies

Danish 3D printer maker Cobod has joined with Mexican cement giant Cemex to devise a method of using conventional ready-mix concrete during the 3D-printing process. The companies say this would reduce time and money compared with current 3D printing methods and traditional construction. [Link](#)

Commercial construction recovery in the US could stall in the coming year as contractors struggle with steel supply and pricing, among other issues. In a survey conducted by US Chamber of Commerce, about 95% contractors said they are experiencing at least one product shortage in the fourth quarter, with steel representing the most-reported product shortage by 27% of respondents. [Link](#)

construction sector players

Crisis-stricken Chinese developer China Evergrande Group has been ordered to demolish 39 buildings at a mega resort it is developing on artificial islands off the island of Hainan on China's

southern coast. Evergrande did not give the reason for the order, though some sources are referring to the company's "unlawful means of obtaining the project certificate", adding that the city had given Evergrande 10 days to tear the buildings down. [Link](#) In the meantime, Chinese authorities have taken over the under-construction Evergrande Guangzhou Football Stadium, which was due to become the world's largest football stadium by capacity. [Link](#)

US-based construction technology company Trimble is expanding infrastructure software solutions portfolio. Trimble has acquired AgileAssets, a provider of enterprise infrastructure asset management software to private organisations and government – including national road authorities and state-level transportation agencies in the US. [Link](#)

A coalition of 62 construction companies known as Jungheung Group has become the third largest contractor in South Korea after completing its purchase of Daewoo Engineering & Construction. The company said it will retain all of Daewoo's staff, and will not interfere in its management decisions. It added that it will focus on improving Daewoo E&C's balance sheet and promoting the smooth operations of its foreign projects. [Link](#)

Saint-Gobain UK and Ireland has announced the sales of three of its four specialist plumbing, heating and sanitaryware distribution brands in the UK. The regional division of the France-based construction sector group will divest itself of the Neville Lumb, DHS and Bassetts distribution businesses. These will be sold to Wolseley UK, with the transactions currently expected to be completed in early 2022. [Link](#)

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