constructsteel

Monthly update for the construction industry

September 2021

Construction market trends

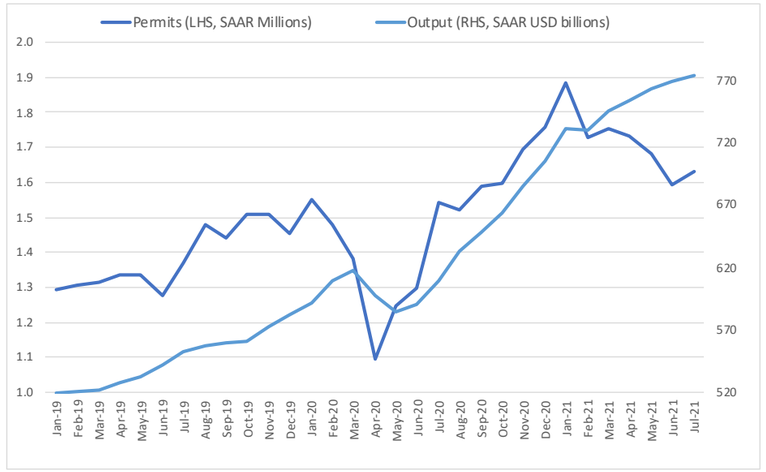
United States

Surging construction costs and house prices impact negatively on housing starts and permits; architecture firms reporting strong business conditions.

Following three months of decline, permits recovered slightly in July and by 2.3% m-o-m (5.7% y-o-y) due to the volatile multi-family home segment. Private non-residential output fell -0.2% m-o-m (-3.6%, y-o-y) in July. Architecture Billings Index (ABI) continued to record strong activity and at 54.6 in July (> 50, expansion).

Private residential permits vs outputl

Source: US Census, American Institute of Architects



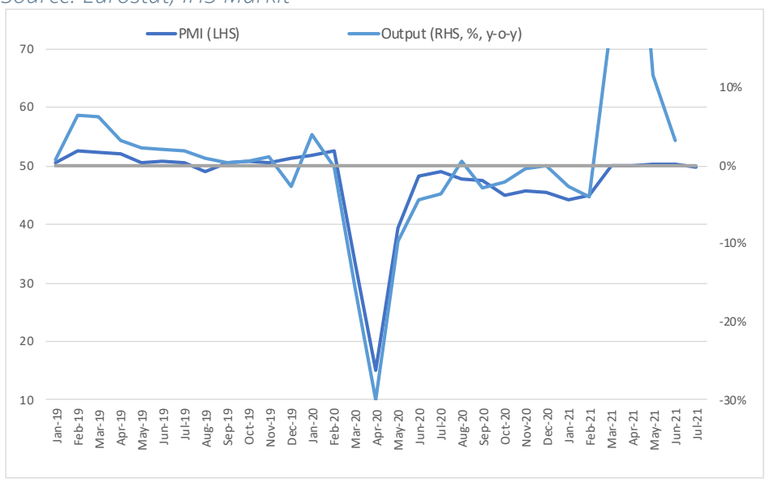
Europe

Home building sector recovers but commercial and civil still weak.

Eurozone output fell -1.7% m-o-m in June (3.2% y-o-y). IHS Markit Eurozone Construction PMI fell to 49.5 in August from 49.8 in July amid contruction material shortages (< 50, contraction).

Eurozone construction output vs PMI

Source: Eurostat, IHS Markit



Knowledge partner:
McKinsey & Company

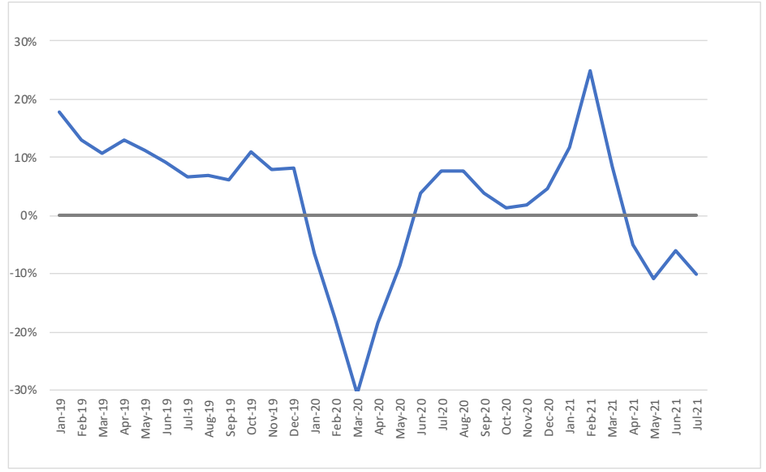
China

Property market slowing after authorities step up curbs in early 2021 to prevent overheating.

The 3 month moving average y-o-y growth in floor space started fell to -10% in July; floor space sold up 3.4% during same period.

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

Source: National Bureau of Statistics of China



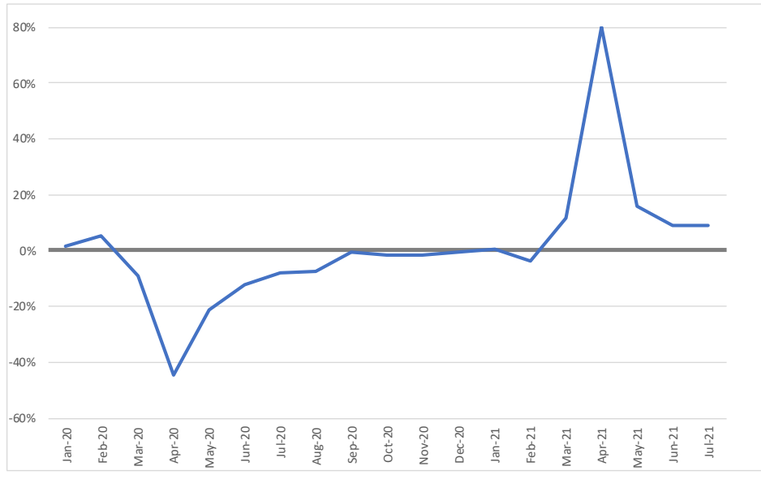
India

Indian economy showing signs of growth but still far from pre-pandemic levels of activity.

Weighted average of eight core industries output up 9.4% y-o-y in July with all sectors increasing (except crude oil) and mainly due to weak base of comparison in 2020.

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

Source: Ministry of Commerce & Industy, India



Special topic: ACT COVID-19 Surge Centre delivered in record time with pre-fab steel

Technology Research &Development | Steel Australia Winter 2021

In the grip of the global COVID-19 pandemic, construction company Manteena and pre-fabrication specialists Austruss delivered a world class COVID-19 surge centre in just 36 days. Manteena was engaged by Aspen Medical under a design and construct contract to deliver a 17,000m2 51-bed medical facility for the act and surrounding region. Working day and night shifts, the team had upwards of 130 contractors on-site and completed 22,000 man hours. The facility was built using pre-fabricated wall frames and roof trusses made from Truecore® steel, manufactured off-site by Austruss. the highly collaborative relationship between Manteena, Austruss and Aspen Medical was essential to on-time delivery of the project, as was the pre-fabricated, highly flexible light gauge steel design.

On 9 April 2020, construction company Manteena commenced the delivery of a COVID-19 Surge Centre on Garran Oval, adjacent to Canberra Hospital.

The project team achieved practical completion after an initial design phase of seven days and a construction period of just 36 days—not only achieving the goal of a very, very tight program but delivering a facility built to Australian Standards, as well as the World Health Organisation (WHO) Sudden Acute Respiratory Infection Treatment Centre manual.

According to Damien Crough (Executive Chairman, prefabAUS), "This COVID specific project was delivered in an unprecedented timescale with the use of prefabricated frames and trusses, wall and ceiling systems, and bathroom pods."

"Australia's prefab industry is merging to mainstream, with significant projects such as the COVID-19 Surge Centre in Canberra taking full advantage of the benefits it has to offer. The focus on design for disassembly and re-use is an inherent sustainability benefit for prefabricated construction."

"Prefabrication has a crucial role to play in transforming Australia's built environment through decreasing construction time frames and construction waste, while increasing quality, productivity and affordability."

Rod Mitton (Design Manager, Manteena) described how the project initially commenced. "I received a phone call from Mantenna CEO Simon Butt on 1 April 2020 asking if I thought we could undertake design and construction of a new medical facility within the next 40 days. Without looking at the date—which just so happened to be April Fool's Day—my answer was, 'Yes, of course we can'."

The brief provided by the client, Aspen Medical, called for the construction of a 17,000m2 medical facility, consisting of 51 patient beds, including patient services panels, treatment areas, administration and nurse stations and staffing facilities. The structure was to be built to cyclone standards to account for the helicopter landing deck near the hospital.

"Simon also explained that the design was only at concept stage at that point. There were no working plans to start the process. The location of the building was not even confirmed," said Mitton.

"We knew that in order to get the project off the ground quickly, we'd have to develop the internal designs sufficiently so as to declare a footprint and begin manufacture of the facility structure and construction foundations immediately. We'd also need to determine construction methodology for the project. There was no tolerance for long lead times, which meant that all technology and equipment would have to be 'off the shelf', or quickly or locally assembled."

"Having undertaken a number of projects with Austruss in the past, I phoned Andrew Fowler [Founder and Managing Director of Austruss] to sound him out on the project. Before the end of the day, Andrew and I had mapped out a plan on how we'd deliver the project using BlueScope's Truecore® steel," said Mitton.

Day 15: Roof sheeting installation.

A flexible design

According to Andrew Fowler (Founder and Managing Director, Austruss), a flexible design was key. "After speaking with Rod, I worked with one of my detailers on a concept based on a sketched-up drawing that Rod had given us. This allowed us to work out how we could finalise some dimensions."

"The brief required that the design be flexible, allow hospital live loads, withstand high wind loads, be reusable, and be able to be packed in a shipping container at end of use. Plus, the product needed to be designed to Australian Standards and on-site within just eight days."

"And we did just that," said Fowler.

"We took each section of the building and broke it into certain elements. The only way we thought we could achieve the compressed delivery timeframe was to use a simple kit of parts that were interchangeable. So we designed trusses on either side of the building and they were all standardised. The walls were all standardised. We came up with a telescopic wall frame system to give flexibility to the whole assembly process."

"The key was as many repeatable elements as possible to simplify the delivery process," said Fowler.

Site establishment

By the time a site location was identified one week later, the project team had created a building footprint and established a flexible work-in-progress floorplan.
As such, site establishment was rapid and footings were in place, ready for delivery of the sub-floor structure, three days after taking possession of the site on Thursday 9 April 2020.

Austruss worked throughout the Easter period, delivering the first lot of wall frames to site on Easter Sunday.

"The whole delivery of this project was just in time to suit what Manteena needed and so that the site wasn't too cluttered," said Fowler.

The remaining internal design continued in parallel with manufacture of the structure. Within seven days of the initial engagement, the design team had a preliminary design for which the remaining packages of works could be constructed. In a highly flexible arrangement with the client, stakeholders, architects, engineers and suppliers such as Austruss, the design was finessed throughout the build to accommodate the client's specific needs.

Light weight steel construction

"There was a lot of detail packed into the very short period. Probably the most crucial decision that was made in the first few days of the project was selecting light weight steel construction," said Mitton.

Before contacting Manteena, Aspen Medical had already undertaken enquiries into some Design for Manufacturing and Assembly (DfMA) products. As the design was still evolving, most volumetric options did not provide the flexibility required of the design that was still being decided. More importantly, advice was

that other manufacturers were unable to meet the timeframes set out by the ACT Government.

"From Manteena's perspective, Truecore®'s strength to weight ratio makes it a very viable option for this type of delivery. Its main attributes are that it doubles as a structural frame, as well as providing a substrate to directly affix cladding. It also provides flexibility for wall set out, and running services that heavy gauge structural steel doesn't always provide. It can be produced efficiently without shop drawings if necessary. It's quick to manufacture and easy to erect, negating the need for large in-ground foundations and cranage,"said Mitton.

Assembly and installation

"For the assembly and installation process, our site team divided the floor plate into six stages. As foundations were drilled and concreted in first stage, the flooring team followed immediately behind installing posts and sub-flooring elements. As soon as they finished, the frame erectors started on walls and trusses, and so on. This allowed each trade to completely finish a section without other trades restricting progress. Night shifts were introduced to ensure that no stages fell behind," said Mitton.

"The building was spaced appropriately to allow for changes and finessing of internal design within the first two weeks of construction. As the design set out of the rooms was still being detailed, manufacturing of the frames needed to start in advance of the design if we were going to meet the tight timeframes."

"Austruss came up with the idea of making standard modular frames to meet this purpose. When erected on site, the install team was able to measure the run of the wall and then equally spread the frames to suit. No two frames were greater than 600mm apart as this was the maximum stud spacing allowed to distribute the roof load. Even as wall frames were being delivered, changes were being made to the floor. The Trucore® steel was strong enough to facilitate these changes and adapt to the different loadings on the structure," said Mitton.

Another innovation that Austruss developed was to design and construct the roof trusses to allow a full 3m gap between the trusses. This allowed significant space for plant and equipment to be installed between trusses, not underneath as would occur traditionally. This also reduced the overall height of the building as there were no ceiling voids under the trusses.

Steel cladding

According to Mitton, another important decision was the selection of the cladding to be used in the project.

"The finishes were to be clean, comfortable and thermally efficient. We knew that traditional cladding like plasterboard and cement sheeting were not an option due to the programming constraints of fixing, setting and painting while service trades were waiting to fit out," said Mitton.
"We had to come up with a product that was thermally and acoustically sound that didn't need painting but had a resilient finish to reduce infection control. Thermal cool room panels were the obvious choice, although consideration was given to other products like white rock."

Day 37: Handover of the ACT's COVID-19 Surge Centre.

"The thermal panels are constructed by placing an expanded polystyrene sheet between two layers of Colorbond cladding. Combining the Truecore® framing and the thermal panel meant that we still had a cavity to run the services in, without surface mounting any of the cabling or pipework. This was an important factor for infection control principles," said Mitton.

Sustainability

While not part of the original brief, the team set a goal for the project to be able to be deconstructed and reconstructed elsewhere when no longer required.

"The best estimate is that 90% of the materials used in the construction of the building can be reclaimed and nearly all of the building can be flat packed and re-established in a different location, either locally or internationally. This meant that no component could be no longer than what could fit into a 20 foot container. That goal was set for designers and suppliers," said Mitton.

"Locally sourcing materials and labour was another crucial aspect of ensuring that we were able to meet the project objectives. We were able to gain a commitment from regional and local contractors to do so. Austruss for one fabricated over Easter when most companies would have been shut down."

"There was minimal waste as a result of the build. We had very little left over on-site and what was left was de-assembled and sent back to Austruss," said Mitton.

The speed of trust

This project was a success for both Austruss and Manteena who have worked on many projects together since Austruss opened their doors 17 years ago.

Fowler said, "The only way this project could be undertaken was due to the trust we'd developed with Manteena. We've had a longstanding relationship with Manteena. It comes down to the speed of trust. If you trust people you can get a lot done incredibly quickly."

The unique circumstances of this project just further cemented their working relationship. "It just adds a new level of trust between both parties," said Fowler.

Mitton praised Fowler and the Austruss team. "I want to acknowledge the relationship between Manteena and Austruss and the collaborative nature in which Austruss worked with us. This collaboration enabled the decision making process to proceed unimpeded, with the main objective being to open the facility as quickly as possible."

"Andrew's very inventive and if you have an idea or a need, he will come up with a solution. We knew that if Andrew committed to the project, then he would deliver," said Mitton.

KEY BENEFITS OF TRUECORE® STEEL

Design Flexibility: With the floor plan for the structure still being finalised while frame fabrication was underway, design flexibility was key to the success of this project. According to Fowler, "Even as wall frames were being delivered, changes were being made to the floor plan. And Truecore® steel was strong enough to fulfil these changes and adapt to different loadings on the structure."

The frames made from Truecore® steel allowed for design flexibility. "The product allowed for flexibility – allowing changes to be made onsite," said Mitton. "You take out a few screws, make a few changes and then all of a sudden you've got an opening where you didn't have an opening before."

Impressive strength-to-weight ratio: "Framing made from Truecore® steel is structurally very sound, which helped to allow for large spans of ceilings," said Mitton.

Speed and efficiency: "The frames that Austruss made from Truecore® steel were produced quickly and designed in a way that they were fast to erect onsite and facilitated the running of services (water pipes, electric cabling, and so on) very easily," said Mitton.

Consistent quality: "Knowing that Truecore® steel is a consistent quality product gave Austruss confidence with what they committed to deliver," said Fowler.

Reliable supply chain: "Vital to Austruss turning around the framing so quickly was knowing that enough Truecore® steel product was readily available within such a short time frame," said Fowler.

Technical trends: Seizing the decarbonisation opportunity in construction

Engineering, Construction & Building Materials, McKinsey & Co

As decarbonisation initiatives gain momentum, construction players can benefit from this growing trend—but only if they view ESG as a strategic opportunity and collaborate with other stakeholders in the ecosystem.

Measuring environmental impact

Environmental, social, and governance (ESG) factors are the key measures of a business's sustainability and societal impact within the construction ecosystem. Metrics can be assessed across the entire ecosystem and throughout the life cycle of buildings and infrastructure. The environmental component addresses aspects ranging from air quality and energy management to a project's impact on biodiversity, waste, and water management. Although allocating GHG emissions across the construction ecosystem is not straightforward, construction is directly or indirectly responsible for almost 40 percent of global CO_2 emissions from fuel combustion and 25 percent of GHG emissions overall (Exhibit 1).

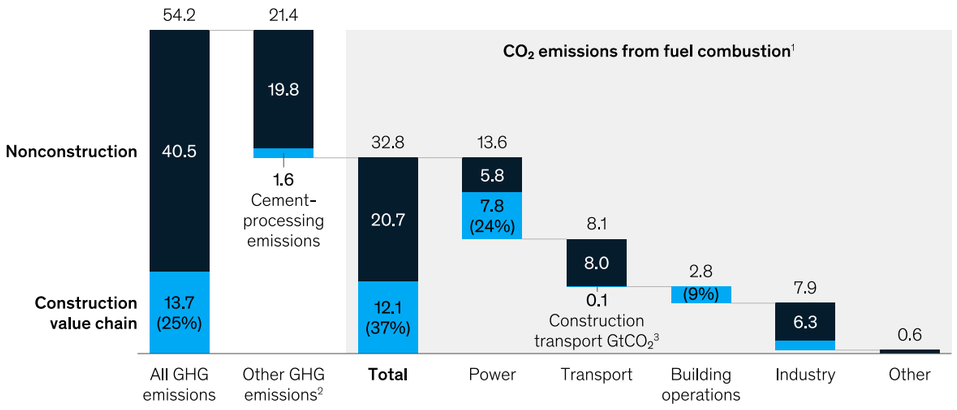
The construction ecosystem is driving global emissions

GHG emissions from the construction ecosystem are mainly driven by two components: raw-material processing for buildings and infrastructure (about 30 percent of total construction emissions per year, largely cement and steel) and buildings operations (about 70 percent) (Exhibit 2). Given typical asset lifetimes of 30 to 130 years, we cannot wait to replace products at the end of their life cycle if we are to meet climate-change-mitigation targets by 2050. With roughly 80 percent of the predicted building stock for 2050 already in existence today, there is a huge need—and opportunity—to retrofit existing assets.

The contribution from raw materials comes primarily from energy-intensive cement production and through metals (about 50 percent of global steel production is used for construction), which contributes almost 7 percent of global GHG emissions. The contribution from commercial and residential building operations is mainly driven by space and water heating within buildings, heat leakage due to poor insulation, and other energy usage such as lighting, air conditioning, and appliances.

Across the value chain, the construction ecosystem accounts for approximately 25 percent of global GHG emissions.

GHG emissions in $GtCO_2e$, 2017



Design is the most important factor in determining GHG emissions over a building's lifetime. By the time the construction process begins, the majority of decisions affecting the project's GHG emissions are locked in. The ability to influence a building's lifetime emissions is highest very early in a project and before construction has started.

Fundamental design decisions—such as new construction versus upgrading, building size and shape, level of insulation, and floor-space flexibility—can have a significant impact on emissions for decades to come.

If left unaddressed, the construction ecosystem's carbon output is expected to grow over the next 30 years as we seek to meet the demands of an expanding population and increased urbanisation. On a positive note, this opens opportunities to optimize new builds, while a simultaneous shift toward renewable energy will help to mitigate emissions. With power-system decarbonisation leading to a reduction in emissions by 2050, the need to eliminate annual emissions remains significant for the construction and real estate ecosystem to meet the 2016 Paris Agreement's 1.5-degree warming target.

Nevertheless, tackling emissions will be challenging. Providing incentives for players across the value chain to take joint action is a necessary part of this process. The construction ecosystem is in the midst of a transition that is reshaping all parts of the industry. A further challenge is how to deploy smart technologies across millions of locations in an industry

with the second-lowest level of digitalisation and relatively low levels of productivity growth.

Focusing on specific decarbonisation initiatives can be cost-effective

The scale of the problem is substantial, as are the challenges faced by the player in the ecosystem. But the good news is that there are clear actions each player can take to dramatically reduce its carbon footprint—and many of these actions will also deliver cost savings. However, a combined effort will be required across both existing and new building stock if the industry is to achieve its ultimate goal of net-zero emissions at an ecosystem level. To chart the decarbonisation pathway of the construction industry, McKinsey has assessed a range of levers to decarbonisation. Each lever is assessed for abatement potential, and for cost, on a net-present-value (NPV) basis, to assess the abatement cost in euros per ton of CO_2. For the European markets alone, McKinsey has modelled more than 1,000 business cases to establish the most cost-effective pathway to decarbonisation.

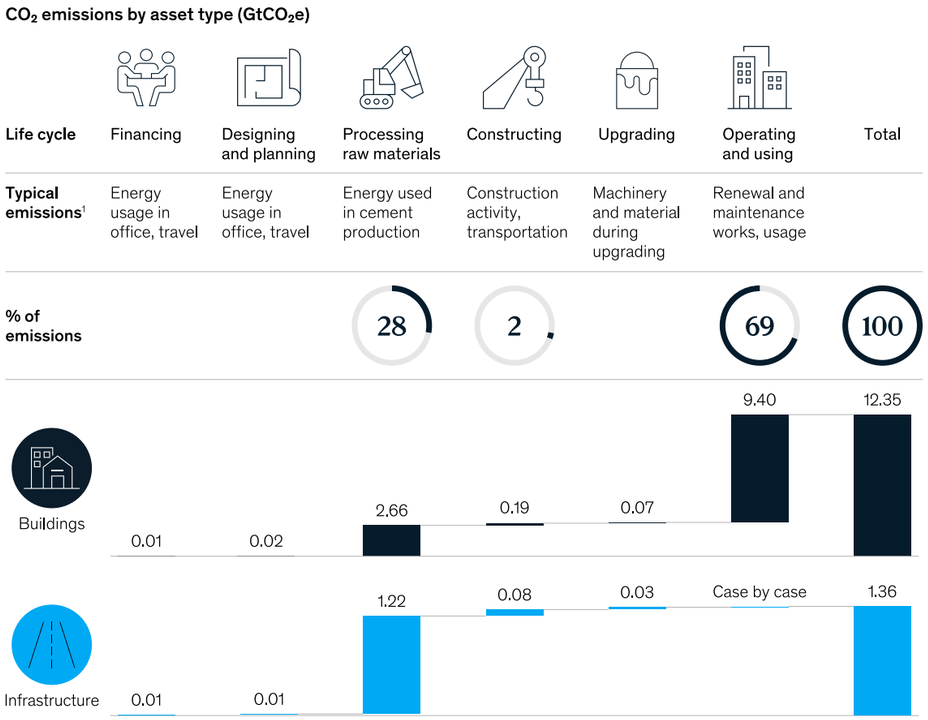
This assessment shows that it is possible to reach net-zero emissions for operating buildings at an average cost of €5 per ton of CO_2, contributing substantially to the overall net-zero pathway that can be achieved at net-zero cost by 2050 in Europe.

Average abatement costs for other sectors vary significantly: for example, the industry abatement cost averages €85 per ton abated, transport €–120 per ton abated and agriculture €–25 per ton abated. Given that the average building emits two tons of CO_2 per year, the average annual cost increase would be only €10 per dwelling per building per year—an increase to the average energy bill of approximately 1 percent. Moreover, even without the more expensive abatement levers, the heating would still experience 85 percent abatement.

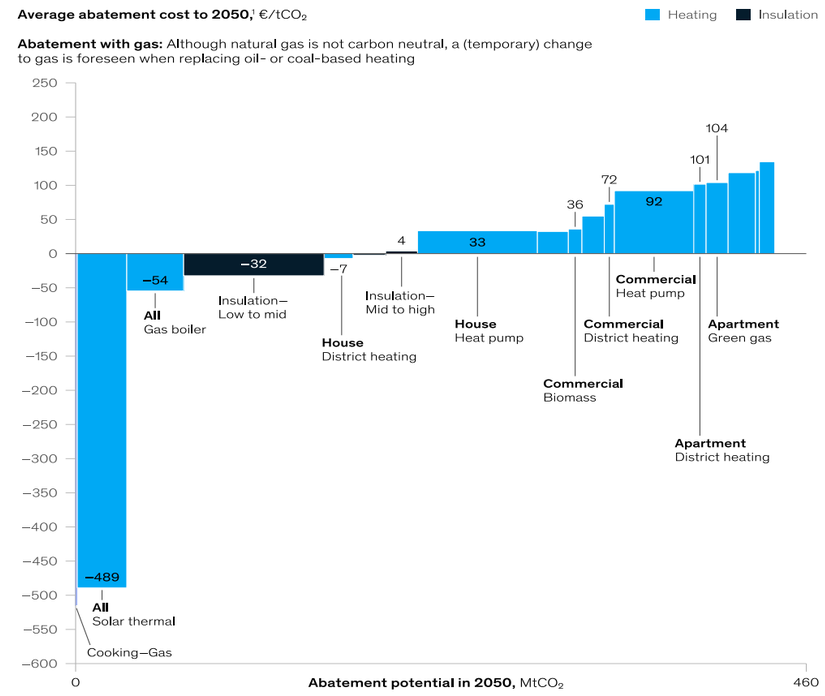
Reducing the emissions impact of new builds

Turning to new building construction, we see that it is responsible for more than 2.5 gigatons of CO_2e globally (5 percent of total GHG emissions).

Building operations and raw-material processing are the largest GHG contributors along the construction value chain.



Switching to solar thermal and medium insulation in existing stock is a no-regrets move to reduce emissions from heating.



Concrete and steel processing represents the largest share (60 percent) of embodied carbon because of the large quantities of each material incorporated in a typical structure and the energy-intensive production process.

Reducing emissions for new builds requires a different approach than that for decarbonising building operations. Regulations for new builds are currently tightening, requiring higher levels of insulation: for example, new buildings in the European Union are now subject to the Energy Performance of Buildings Directive. In addition, decarbonisation of materials can be achieved through a combination of several main measures: demand reduction and circularity, optimising construction and material, and material decarbonisation.

McKinsey modelled a potential abatement pathway for materials and construction processes, taking as an example a European residential building (five stories, 500-square-meter footprint), to assess the optimal combination of the principal measures (Exhibit 3).

The pathway for this vision of net-zero carbon buildings at zero cost increase may require a rethinking of basic principles and a combination of existing and alternative materials. The optimal mix of these will vary for different buildings and locations. Analysis for the building used in this illustration (mainly based around well-known and more-established levers) suggests that most abatement potential comes from reducing upstream emissions in the material-production process (optimising construction and materials, 40 percent). The remainder of the abatement potential comes from lowering demand, including primary resources and circularity. The pathway suggests that a share of these measures would bring cost savings to the industry.

Companies stand to benefit from tackling emissions

Capital markets are shifting toward ESG, with more and cheaper capital available for sustainable players — this will be one driver of a rapid increase in demand for ESG-friendly buildings. Furthermore, consumers are becoming as aware of the emissions generated by their homes and workplaces as they are of the environmental impact of what they drive, how they travel, and what they eat.

The decarbonisation and sustainability focus will shift inexorably toward construction and real estate, following scrutiny of other industries in recent years. At the same time, the drive toward sustainability brings significant

opportunities for value creation.

Companies can benefit from approaching ESG as a strategic opportunity versus the traditional view that it is simply a cost that is hard to pass on to other players in the value chain (for example, tenants or developers). As discussed, many carbon-abatement levers can be cost-effective. Within operations ESG could involve installing insulation and district heating in Europe or, in the context of construction of new stock, reducing demand for primary resources through design and process optimisation and shifting from commonly used materials to more energy-efficient ones. To capitalise on the strategic opportunities, players should consider changes in value pools, respond to megatrends such as new technology and services with new business models, and boldly tap into the capital market.

By contrast, a failure to act now could leave construction open to serious challenges from future entrants operating closer to market expectations, through increasingly stringent regulation that incentivises low-carbon players and penalises others, or because capital markets limit investments in companies that lack a serious commitment to decarbonisation. New players entering the market can focus on the main trends disrupting an industry without having to undergo a transformational shift. This can translate into a significant advantage over more-established players.
The smart-buildings segment is expected to grow at 10 to 13 percent CAGR until 2025; examples range from new materials and approaches to tackling waste sources to green-design solutions based on building-information modelling and IoT-based energy management . Equally, recent years have seen a significant increase in societal pressure on companies to reduce their environmental impact, and growing regulatory pressure puts businesses across the construction and real estate ecosystem at risk; building-material suppliers, for example, have the highest exposure among all industries to higher carbon prices in terms of EBITDA . Regulators in more than 50 countries have already established or are planning a form of carbon taxation.

No single player in the ecosystem can tackle the emissions issue alone

The construction ecosystem is highly fragmented, with many steps along the product life cycle. Although each player in this highly complex eco-system can make a difference and capture opportunities, collaborative efforts among various stakeholders are likely to yield the best results. For example, developers can influence design and planning, while contractors can have an impact on construction of new buildings and upgrades to existing stock — depending on the asset type, each stakeholder has an impact on emissions at multiple stages of the product life cycle; equally, large chunks of emissions are affected by multiple players.

Moreover, the impacts of the emissions transition will be unevenly distributed, creating challenges for many individual companies and actors. Stakeholders must prepare for significant changes to policies and regulations, risk-sharing schemes (such as performance-based, energy-reduction contracts), alternative-financing models (for example, green mortgages), and digital innovations (for instance, blockchain-based platforms designed to allocate savings from energy-efficiency investments).

As demand and regulatory pressures mount, the construction ecosystem needs to identify mechanisms to address these pressures. For example, engineering companies will need to optimise cost and ESG design based on lifetime cost (as opposed to upfront cost), and contractors will have to minimise waste, ensure recycling, and replace diesel-powered equipment.

The construction industry is experiencing multiple disruptions, but the drive to sustainability is racing ahead. Just ten years ago, zero-emissions vehicles were only a concept; now they are a reality. Change is arriving quickly, and we are already seeing many modifications to new and existing projects. Accelerating this journey and addressing the challenge head-on will be key.

Construction steel news headlines

construction market and regulations

The US Senate has passed the $1.2 trillion Infrastructure Investment and Jobs Act by a 69-30 margin. The bill, which includes $550 billion in new infrastructure spending over the next five years, represents the largest new federal investment in the country's roads, bridges and highways in decades. Measures in the legislation include $110 billion for improvements to roads and bridges and $66 billion for passenger and freight rail projects, in addition to expanding broadband access and electric vehicle capabilities across the country. Link The bill also includes $100 million over five years to accelerate the deployment of digital construction technologies such as 3D modelling software and digital project management platforms. Link

The Global Alliance for Buildings and Construction has published a report that identifies 10 key measures that national, subnational and local governments need to incorporate, in order to move forward with efforts to decarbonise the building sector. While the report does not provide a "comprehensive strategy", the measures it outlines are designed to help governments, local authorities and construction sector organisations achieve net-zero targets. Link

According to Off-Highway Research, global construction equipment sales are expected to hit 1.13 million units (2% higher than the previous record achieved in 2018), with a value of almost US$110 billion this year. The record-high sales will come about due to the stimulus response to the virus by governments around the world, most significantly in China. Link In the UK, ongoing materials and labour shortages are likely to worsen while turnover is predicted to grow through the rest of 2021. Specialist contractors are particularly concerned about lack of skilled staff able to meet growing demand for the sector's services – there are shortages of skilled labour in all specialist sectors, and this is pushing up labour costs. Nearly two-thirds of survey respondents said they expect the ongoing shortages of materials and equipment to deteriorate as the year goes on. Link

The construction industry in India will enjoy strong growth due to the government's National Infrastructure Pipeline (NIP) and ambition to make India a US$5 trillion economy by 2024, according to a report by India Infrastructure Research. NIP has projected a capital expenditure of US$1.5 trillion to be spent from 2019-25. Over 70% of this has been allocated to four infrastructure sectors: energy (24%), roads (19%), urban infrastructure (16%) and railways (13%). Link

Australia's booming construction industry could be impacted by China's move to restrict steel production, with rising prices impacting the essential material used to build houses as well as threats to supply. There are reports that Beijing is also planning to slap on extra taxes to steel imports, which would further push prices up, making many Aussie importers nervous about ordering from China. With Australia importing a third of its steel needs, the Australian Steel Association's CEO David Buchanan warned the material is also becoming more challenging to source due to COVID-19's impact on shipping causing port congestion. Link

The top three performing construction sectors so far in 2021 are data centres, transport, and industrial, manufacturing and distribution, according to Consultant Turner & Townsend's International Construction Market Survey 2021. The top performing sector across all participating markets is data centres, driven by the growth in technology and digitalisation. COVID-19, labour shortages and Government red tape, bureaucracy, and delayed approvals have been listed among core industry challenges. Link

Global construction output is expected to see a growth of 5.7% in 2021, according to GlobalData. This predicted growth would be a robust figure, given that the industry saw a 2.4% decline in 2020 and that cases of those infected with COVID-19 is still high around the world. Many markets have managed to regain growth momentum and have already returned to pre-COVID-19 levels. Out of 65 countries, 25 had recorded year-on-year growth in the first quarter of 2021, including China, France, Italy, India and Saudi Arabia. Link

Building materials and construction technologies

Formwork and scaffolding maker Peri has announced that Germany's first printed house is ready for occupancy. The 160 sq m, two-storey house was created using a Cobod Bod2 printer – printing began in September 2020, using printing mortar from HeidelbergCement with mixing technology from German construction firm M-tec Mathis Technik. Link

In the UK, building materials prices rose 4.5% in July 2021 compared to the previous month and by 20.1% year-on-year. The construction materials price index is at its highest point since current records began in 1996. The materials showing the steepest price increases over the year were imported plywood (up 81.7%), fabricated structural steel (64.7%) and imported sawn or planed wood (64.2%). Link

In the US, non-residential construction input prices are up 23.4% since this time last year, according to an Associated Builders and Contractors. For July, non-residential construction input prices increased 0.8% since the month before. While softwood lumber saw a 29% dip in prices since the previous month, prices for steel mill products, which increased 10.8% in July alone, are up 108.6% for the year. Link

Skanska is planning to use 3D-printed concrete in its work on HS2, a high-speed rail system reported to cost as much as $147 billion, under construction in the U.K. The joint venture between Skanska, U.K. civil contractor Costain and Austrian contractor Strabag will employ a technology called "Printfrastructure" that will print concrete structures on site instead of shipping them in prefabricated slabs or mixing and pouring it at the location. The machine is also capable of going into physically restricting spaces, removing the costs of sending people in to do the same job. Proof-of-concept trials are due to begin next spring. Link
US construction tech player Trimble has announced the creation of Trimble Ventures, a venture fund focused on investing in early and growth-stage innovative companies. The fund will seek to accelerate the digital transformation of the agriculture, construction, geospatial and transportation industries. It will launch with US$200 million allocated for investments and focus on companies with the potential for technology-enabled innovation and disruption in the digital transformation of the industries Trimble serves. Link

construction sector players

Dutch construction company Royal BAM Group reported revenue increase by 17% to €3.6 billion in the first half-year of 2021 compared to the same period last year. Easing of the lockdowns causes by the COVID-19 pandemic and the company's cost reduction programme initiated in September 2020 resulted in a strong recovery. The company said it saw a very strong performance from the Dutch construction and property sectors. Link

The half-year 2021 results from Switzerland-based materials giant Holcim show record-breaking growth in earnings, with EBIT (earnings before interest and tax) at 72.2%, while free cash flow increased by 9% compared to the same period in 2020. In the second quarter alone, Holcim reported 33.2% year-on-year growth in net sales and 56.1% growth in EBIT. From a European perspective, the company said it had seen a strong recovery in the UK, plus "solid demand in France and continuous growth in Eastern European markets". Link

French construction and concessions giant Vinci has released its financial results for the first half of 2021, showing a strong increase in revenue and earnings. Revenue for the whole company in the first half of 2021 totalled €22.6 billion, up 22.3% on an actual basis relative to the first half of 2020. The upturn was particularly strong in France, where business levels in the previous year were badly affected by the first lockdown; outside France, revenue was up 19% compared with the first half of 2019. Link

UK modular housing manufacturer CoreHaus has opened its first manufacturing facility and begun full production of its steel-framed modular homes. One of the newest modular house builders in the country, the company is a joint venture firm made up of Carlton & Co Group and public procurement specialist Fusion21. Link

Multinational modular workspace company Modulaire has completed the acquisition of Italian modular building company Tecnifor which includes the Locabox and FAE businesses – all provide modular buildings, with a fleet of 12,000 units targeted at the construction and public administration sectors. The acquisition comes as Modulaire goes through the process of a change in ownership, with long time private equity owner TDR Capital selling the business to investment firm Brookfield Business Partners in a deal worth US$5 billion. Link

The start of the second half of 2021 saw M&A activity accelerating across the wholesale distribution space and continued a recent trend of numerous deals in the building materials and construction vertical in the US. Companies like US LBM Holdings continued to snatch up businesses, making three acquisitions during the month. L&W Supply, SRS Distribution, Builders First Source and GMS also grew through acquisition as the sector continues to consolidate. Link

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