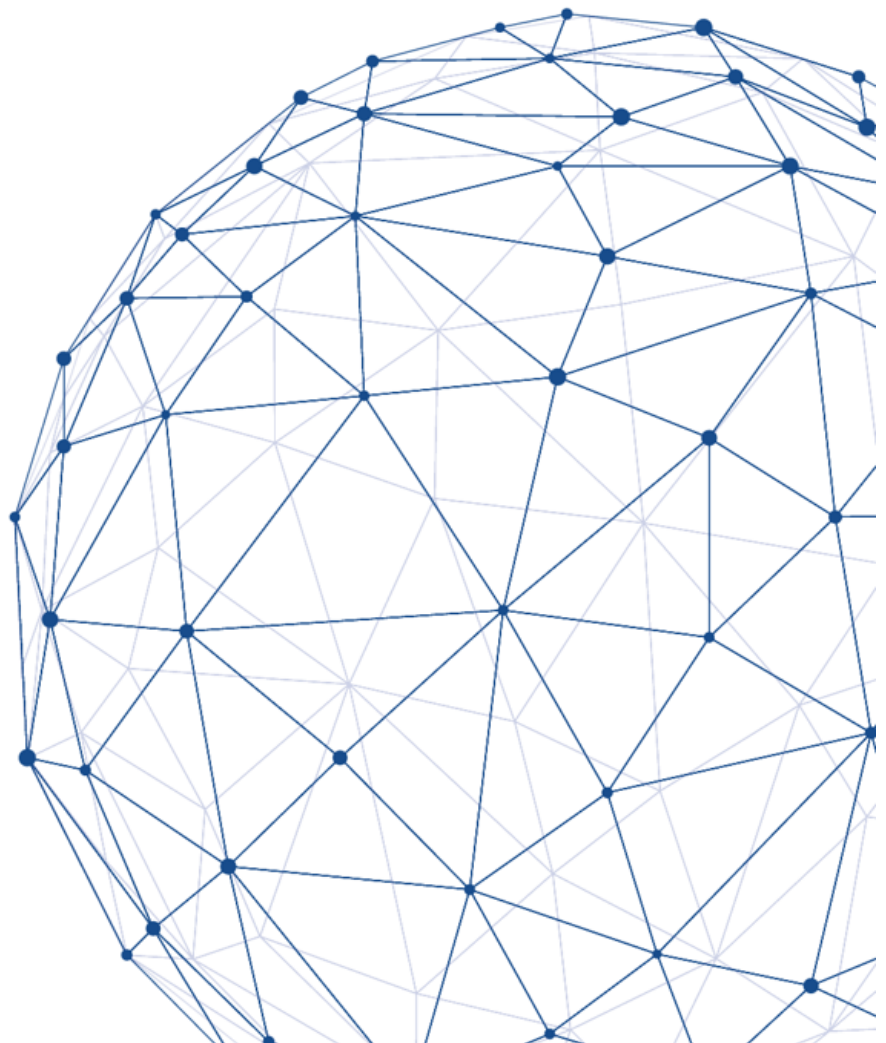


ESG considerations for the credit ratings of construction and construction-materials corporates

Europe's construction sector has faced significant challenges in recent years, from high raw material and energy prices to project bottlenecks and labour shortages. Today, ESG-related challenges are climbing up the industry's agenda. Companies are under pressure to reduce their environmental footprint and invest in sustainable materials to help the industry meet emissions and other environmental goals as part of the energy transition. This document explains the ESG factors we consider relevant to credit ratings.

Scope Ratings GmbH, 07 December 2022



1. General ESG framework at Scope

Our ESG framework evaluates the extent to which ESG factors are credit-relevant for different industries. We also provide an overview of how ESG factors are integrated into our credit analysis. Our evaluations are not mutually exclusive or collectively exhaustive as these factors overlap and evolve. Reporting standards for these non-financial key performance indicators are undergoing major changes, shedding ever more light on stakeholders' understanding and expectations of ESG. We therefore aim to update the framework on a regular basis.

Our corporate credit rating analysis remains focused on credit quality and credit assessment drivers. We only consider an ESG factor relevant to our credit rating process if it has a ubiquitously discernible and material impact on the rated entity's cash flow profile and, by extension, its overall credit quality. Contrary to ESG ratings, which are largely based on quantitative scores for different rating dimensions, credit-relevant ESG drivers are mostly of a qualitative nature. Hence, identified ESG rating factors are based on an opinion in a relative context.

The importance/relevance of certain ESG factors is specific to each rated entity, industry and region, except for the dimension of governance, which is universally applicable across all industries. For example, the risk of pollution and environmental damage is important in the utilities, chemicals and natural resources industries but less relevant to the retail sector, where governance and social factors are more relevant. The same applies to an assessment of ESG-related factors that might have a significant impact on a company located in western Europe but no effect on an eastern Europe corporate with a similar business model. A good example is the impact of regulatory risks, which may be significantly greater in some jurisdictions.

Governance is an indication of how well a corporation is controlled and directed and the extent to which the interests of different stakeholders are safeguarded, including the payment of all due amounts on time and in full. Governance is thus relevant to all rated entities. In contrast, environmental and social variables capture risks and opportunities that are often specific to the activities of a company and the industry in which it operates. All such factors may have a direct or indirect impact on a rated entity's market position and its financial performance.

ESG-related factors can directly or indirectly affect all the rating elements which make up our assessment of an issuer's business risk profile, financial risk profile and supplementary rating drivers. We provide a list of ESG factors that we normally consider for a given industry, although only some of the factors listed are likely to apply and be relevant to any given company.

ESG rating drivers are part of the rating framework that is outlined in our [general rating approach](#) in addition to our specific approach to the sector: see our [rating methodology for construction and construction materials corporates](#).

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2. Important ESG themes in the European construction and construction materials industry

The construction and construction-materials (CCM) industry has a significant impact on the environment. Together, the building and construction industry accounted for 39% of global carbon emissions in 2021 while the [construction industry uses 32% of the world's natural resources](#). This equates to 14.6 bn tonnes of CO₂ emissions, a measure of the scale of the opportunity the CCM industry has for reducing emissions and the responsibility for doing so.

Europe's construction sector has faced significant challenges in recent years, from high raw material and energy prices to project bottlenecks and labour shortages. Today, ESG-related challenges are climbing up the industry's agenda. Companies are under pressure to reduce their environmental footprint and invest in sustainable materials to help the industry meet emissions and other environmental goals as part of the energy transition.

European companies in the CCM industry have improved their disclosure on governance and sustainability-related issues, suggesting that they recognise that these issues are linked to improving returns to shareholders and are increasingly important in financing, given growing investor appetite for ESG-linked bonds

At the same time difficult economic conditions – particularly rising costs, due to disruption in supply chains caused by Russia's war in Ukraine, and a lack of skilled professionals – are creating bottlenecks and risk [holding back the CCM industry from improving innovation and sustainable practices](#).

The CCM industry also faces multiple and complex ESG-related challenges from designing and measuring social value, implementing lifecycle and whole-asset thinking, calculating carbon footprints to calculating, benchmarking, and reporting sustainability-linked performance across projects.

The main challenges that we have identified that relate to ESG impacts and risks for any CCM company and the industry at large are:

1. Waste and sustainable building materials
2. Efficient technology
3. Employee health and safety
4. Litigation, bribery and regulatory risk

2.1. Waste and sustainable building materials

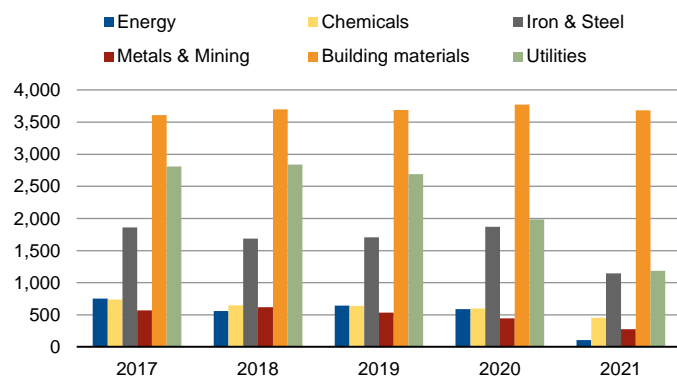
Waste

The CCM industry consumes large amounts of raw materials and natural resources. Construction and Demolition Waste (CDW) represents about [one third of all waste produced in Europe](#). Over recent years, the world at large has focused on switching to renewable energy. However, this will only address 55% of global emissions. The remaining 45% come from the extraction of raw materials and building materials such as cement and concrete, stone, steel, wood, glass and plastic (window frames, insulation), aluminium, and composites. Most of these are made from finite raw materials, extraction of which can harm the environment and generate considerable waste. To help mitigate the scarcity of non-renewable raw materials and reduce the environmental impact of construction projects and activities, CCM companies will need to shift to a more sustainable model, commonly referred to as the circular economy.

Policy frameworks to deal with climate change introduced across the EU, such as The Circular Economy Action Plan (CEAP), will help to improve recycling of CDW. The plans draw on improved waste management that supports the recycling and reuse of CDW, maintaining and adding value to materials that would otherwise be landfilled or backfilled. The CEAP is one of the main building blocks of the European Green Deal, a set of policy initiatives by the European Commission with the overarching aim of making the EU climate neutral by 2050. Such policies are crucial to reduce pressure on natural resources.

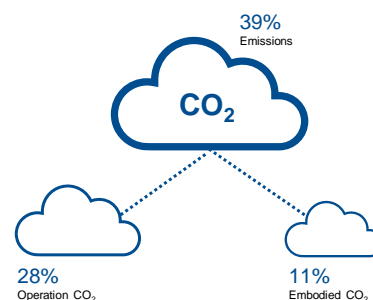
Several companies have adopted waste and circular economic principles. The expense of doing so remains a big challenge, particularly finding cost-effective ways to disassemble or remanufacture materials. While initially costs could go up, we believe that in the medium-term new low-cost alternative building materials will create more incentives for more sustainable industry practices.

Figure 1: Greenhouse gas emissions per sales
(thousand tonnes)



Source: Bloomberg, Scope

Figure 2: CO₂ Emissions of the CCM industry



Source: Scope

Sustainable Building Materials

The construction industry can be broken down into smaller sub sectors: buildings, infrastructure and industrial. However, there is one component that touches all sectors - cement. Cement production alone accounts for as much as 8% of global CO₂ emissions - three times the emissions produced by the aviation sector.

Cement is one of the world's the most used materials. It is the core ingredient in concrete, of which 14bn cubic meters are produced every year. Cement is second only to water as the world's most consumed resource. Concrete suppliers needs to reduce their carbon footprint, and cement accounts for 80% of it.

The dilemma is that cement and concrete are crucial literally for building a climate-neutral Europe, essential for the foundations of wind turbines, the walls of hydro-electric dams and other energy infrastructure such as tidal power installations, not to forget modern housing and new transport infrastructure.

Reducing the CCM industry emissions by the extent necessary to limit warming to 1.5°C will require a huge increase in the use of alternative cements, in addition to lowering the overall demand for cement where possible. Cement producers have already committed to reducing the amount of CO₂ for every tonne of concrete they produce. However, alternatives have yet to be certified based on long-term studies on their performance. Decarbonising the cement industry will be no easy task, but progress is already being made towards the goal of a 21% reduction of CO₂ emissions by 2030 compared to 2015.

The next number of years will see the cement industry go through a 'green transformation'. Leading cement producers like Holcim Ltd. are investing in new ways to reduce their CO₂ emissions, such as the use of biomass waste fuels for cement kilns. However, it is not only the energy used to fire the kilns that releases CO₂, but also the chemical process of making cement.

Mass-timber construction has also received increased attention as an environmentally friendly alternative to concrete because it is much lighter in weight and is therefore ideal for light-frame projects. While concrete remains essential for foundations, timber buildings are lighter so those foundations can be smaller. Mass-timber products are modular and can be produced in a factory, which means faster construction, fewer trucks delivering materials and less disruption to communities around building sites, and a similar process can be done with concrete. Increased use of sustainable materials in construction and development projects is anticipated as ESG strategies become more prevalent, creating potential opportunities for those industry players ready and willing to use such materials.

As far as regulation is concerned, construction products fall under the aegis of the European Union. National, regional and local authorities regulate buildings and construction works. So regulatory compliance remains a complex task for the CCM industry.

Policy frameworks to deal with climate change introduced across the EU, such as the [Construction Products Regulation](#) (CPR) and the European Green Deal, will require all market participants to address these risks by promoting sustainable construction, higher construction standards, and a circular economy. Projects require registration and certifications, e.g., reaction to fire, thermal conductivity or sound insulation.

Relevance to our rating approach:

The cost to transition to more nature-based materials could mean a rise in construction material prices, amid greater scrutiny on the life cycle of materials and further certification to each step of the value/supply chain. Secondary raw materials might prove more expensive than virgin raw materials in some cases. However, in most cases the use of recycled, renewable materials should help to lower the cost in general, as it reduces the amount of waste generated.

The challenge for companies is to find cost-effective ways to recycle construction materials. While costs may rise in the short-term, new low-cost alternative building materials could create more incentives for companies to develop more “circular” business models in the medium to long-term. Greater use of sustainable materials can further enhance a company’s green credentials for investors.

Construction material manufacturers face the potential of an additional “tax” for management of waste products, as an incentive for them to consider the durability, reparability, and end of life use of their products, which will ultimately add more costs to the value chain. In addition, the cost to transition to greener materials, such as concrete, will put more pressure on profitability, which companies will have to absorb or pass on to their clients.

Recycling can lead to significant savings for CCM companies as input costs rise – notably for energy and water – and will likely be important for firms bidding for future projects as governments and other clients focus on sustainability in procurement.

2.2. Efficient technology

The biggest differentiator for contractors in the future will likely be efficiency-enhancing technology. Companies need to implement their own measures for a more efficient use of raw materials and to respect commitments to greater energy efficiency. Companies can also benefit from the use of innovative technologies.

One example is augmented reality which facilitates 3D visualisation of future projects, automated measuring of buildings, and safety training and hazard simulation. Another is the use of drones, for heat mapping, thermal imaging, streamlining the construction process, and replacing otherwise dangerous human tasks such as scaling supertall structures.

Big data has the potential to transform the construction industry, as it has in the healthcare and retail sectors. The task for construction companies is to use stored data to identify patterns and minimise or avoid problems frequently encountered in projects.

Building Information Modelling

The construction industry has a poor reputation when it comes to [adopting new technologies](#), leading inefficient information management throughout a structure’s lifecycle. To overcome this challenge, the industry needs to embrace new technological innovation, such as Building Information Modelling (BIM). [BIM is being adopted rapidly by different parts of the value chain](#) as a strategic tool to deliver cost savings, productivity and operation efficiencies, improved infrastructure quality and better environmental performance.

In addition, BIM is now a requirement for many construction contracts across the UK and Ireland. As such, the European Commission set up the EU BIM task group in 2016 to align the use of modelling in public works projects across the region. Progress has been slower in other parts of the world, with no such government backed support in the US or China. However, the pandemic has proved an incentive to do things differently, encouraging the industry to rely more on digital technologies to protect profitability.

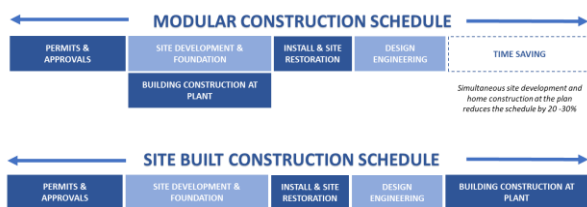
Building technology can analyse live data to determine when and why existing plant and equipment are not working as they should, make the necessary adjustments, so systems can be optimised and energy waste reduced. [New proposals by the EU call for the mandatory disclosure of the emissions](#) potential of new buildings over their whole life cycle, starting with larger buildings by 2027 and applying to all buildings after 2030. If such technologies are factored into the initial construction stages, more sustainable outcomes can be achieved without significant financial impact. As such, new buildings will not require as much maintenance in the future and will be more attractive to investors.

Modular construction

The industry is paying increasingly close attention to modular construction (formerly known as prefab). Proponents argue that it can deliver greater environmental and social sustainability benefits than conventional construction methods by reducing waste, reducing disruption to building sites and surrounding areas, making working conditions safer, and saving on energy. Modular buildings can serve multiple purposes during their service life and can be dismantled without generating demolition waste.

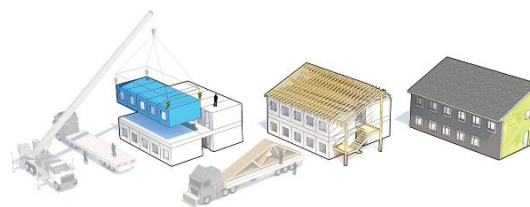
Modular construction is typically associated with houses but can be used in any context: offices, hotels, industrial buildings. Not only does modular construction have a lower carbon footprint, but it also saves time. For example, modular construction [can cut construction schedules by 20%–50%](#), while also significantly lower costs.

Figure 3: Timeline Comparison



Source: Scope

Figure 4: Modular Construction



Source: Holst Architecture

Relevance to our rating approach:

Companies that do not fully realise the benefits of innovative technologies, such as BIM, risk becoming uncompetitive and at a disadvantage in tenders. Innovation inevitably requires investment: upgraded hardware, software licensing, training staff and so forth.

A lack of innovation can lead to companies finding themselves in a vicious cycle of repeating mistakes or replicating inefficient processes if insights from previous projects are not retained and applied to new ones. Better data use is critical. More data-driven informed decision-making allows for better resource management and shorter lead times, which reduces costs and working capital requirements.

The ability to measure emissions and report them in a timely fashion will help to please regulators and help attract investors and customers with increasingly demanding reporting requirements of their own. This will be a positive for operational cash flow by lowering the risk of more onerous regulatory scrutiny.

Companies face the risk of lower liquidity and/or reduced attractiveness of assets that have not incorporated climate mitigation into their business models and projects. Poorly environmentally-conceived projects may have to be sold at a discount.

2.3. Employee health and safety

Health and safety have long been a concern in the construction industry given the physical nature of the work involved., as risks to workers are a particular challenge. The focus has primarily been on physical safety. However, in the last five years, [mental health and well-being risks](#) have increased significantly and have become the most prevalent causes of illness and injury. The social pillar of the EU taxonomy has a greater focus on employee health and wellbeing. For example, influencing the supply chain by reducing the use of 'gig-economy' contracts and provide more certainty in terms of work hours to avoid worker exhaustion from long hours. This will also increase the attractiveness of the industry to work in and reduce the labour shortages.

Construction activities involve many hazards, including i) worker falls, both from heights and from the ground, ii) heavy lifting and manual handling of facilities and materials can take a physical toll and pose problems with an aging workforce, iii) noise and vibration, as well as exposure to dust when proper personal protective equipment is not provided. All these can lead to short- and long-term health problems.

While in previous years, worker safety was a hurdle to optimise labour costs and profitability, in 2021, the construction industry saw an increase in [personal protection equipment \(PPE\)](#) to increase worker safety. The Covid-19 pandemic has also shifted many views on safety, affecting construction site guidelines by way of updated state regulations emphasizing cleanliness and stricter safety protocols.

The focus has firmly shifted from employee volunteer efforts, to integrating ESG into business strategy. When ESG risk management is in place, it means that the health and safety of construction workers and those further along the supply chain have been considered, and a roadmap has been put in place to manage risk.

Technology has a twofold impact: i) increasing workers safety, for example, by using environmental sensors that alert site workers of heat, wind, and noise, so that they can quickly evacuate a job site if needed, and ii) increased usage of technology requires more educated workers to manage and interpret the data produced, making room for different, higher-level jobs. As has been the case in many other industries, an industry's ability to leverage artificial intelligence can completely transform that industry, and the CCM industry is no different.

Relevance to our rating approach:

Failure to implement a robust health and safety environment will mean companies will not be able to attract or retain the best talent. This could be a big problem for organisations with the loss of "key personnel", as they will not have their extensive experience to fall back on when faced with problems, ultimately making the company less competitive. The greater an employee satisfaction level will mean the greater an employer's ability to reduce turnover, control staff costs, and enhance productivity.

Inadequate health and safety protocols/policies on construction sites can lead to an increase in the operational costs of projects. This includes additional costs due to poor productivity, the cost of medical care for employees, loss of person hours, absenteeism, as well as an adverse impact on the image of the organisation.

Organisations with a poor health and safety record are more likely to have delays on site, sites closed down, vast project inefficiencies and substantial cost overruns. Furthermore, companies with a lower number of incidents will benefit from having lower insurance premiums. For companies that are failing to align with the EU taxonomy, there is also the strong possibility that access to insurance will also become more expensive and, in some cases, not achievable.

2.4. Litigation, bribery and regulatory risk

The construction industry faces specific governance issues. The complexity of construction projects exposes companies to a wide range of potential liabilities and litigation in addition to the pressure of completing projects on time and on budget.

Construction companies are exposed to litigation in various phases of a project: procurement, project execution, and post-project commitments such as operational guarantees.

Anti-competitive behaviour is a long-standing bugbear in an industry where profit margins are often narrow and competition fierce.

In Europe, there have been high-profile recent cases of companies falling foul of regulators. In July 2022, the Competition Chamber of the CNMC (Comisión Nacional de los Mercados y la Competencia in Spain) imposed a record [fine of EUR 203m on the six largest listed Spanish construction companies](#) in Spain for continuously altering the functioning of the public works market from 1992 to 2017.

In 2020, the Competition and Markets Authority (CMA) in the UK, fined 2 major suppliers to the construction industry more than GBP 15m for illegally colluding to reduce competition and keep prices up. The CMA found that the companies colluded illegally to reduce competition and maintain or increase prices. In addition, the CMA plans to fine 10 construction firms which it found earlier this year had illegally colluded to rig bids for demolition and asbestos-removal contracts.

Companies are exposed to regulatory risk in its emerging markets – where legal frameworks can be weaker – as many of contracts in the construction industry are agreed with governments. Complex groups with a presence in high-risk countries can face limits on the ability to move cash flow within the group, thus limiting the potential benefits of project and geographic diversification. Transparency related to advance payments and working capital swings is another key area of our governance focus.

Other challenges include fines due to delay of projects – that could result in contract risk, or lack of construction material to timely deliver projects.

Relevance to our rating approach:

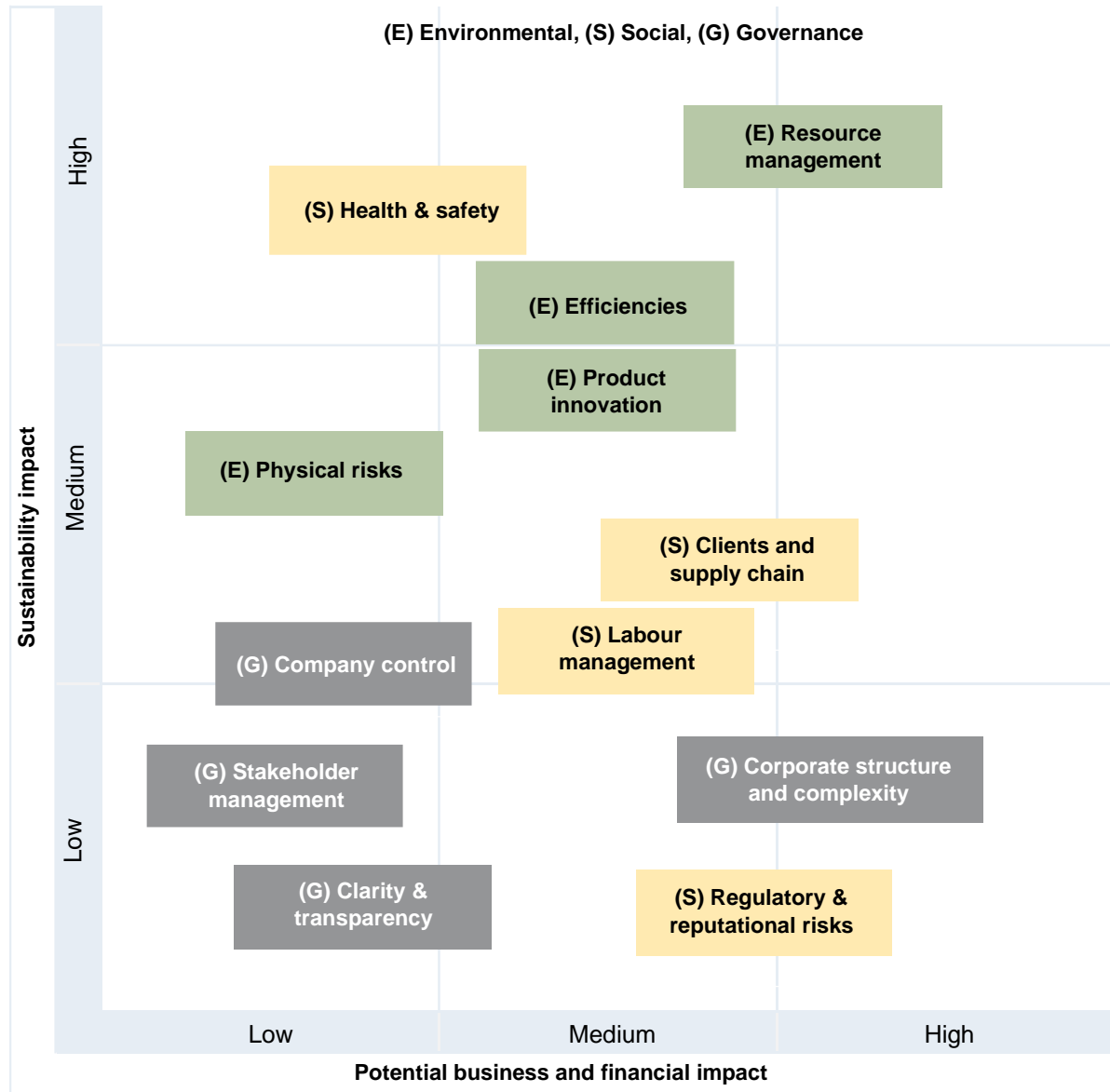
There is a risk of irreversible reputational damage and organisations will find it harder to raise funds or win tenders. Investors continue to push the ESG mindset into the mainstream and want to be seen to be doing their part. They are chasing portfolios with high ESG ratings at an exponential rate and will not want to be seen doing business with organisations who are embroiled in scandals. There will be a smaller amount of capital chasing non ESG friendly companies.

A focus on sustainable targets, instead of maximising short-term profits, will enhance an organisations reputation as a reliable long-term partner for all stakeholders. A company's reputation has a large bearing on their social license to operate.

Any claims or litigation proceeding, could give rise to significant outstanding liabilities and continual cash outflow lowering operating cash flow and financial flexibility, with negative implications for a company's cash flow, profitability, debt levels and refinancing ability.

3. Materiality of ESG factors on the construction and construction materials industry

Our ESG framework includes various broader categories related to environmental, social and governance factors. We differentiate between the impact these factors have on sustainability and on a company's credit profile (business and financial risk). Not all ESG factors influence an issuer's creditworthiness to the same extent.



4. Typical ESG factors in construction and construction materials industry

Governance is generic and applies to all industries. How it is measured is therefore particularly important. The environmental and social factors listed here provide a realistic reflection of the risks and opportunities that a construction and construction materials company might face. The list below is non-exhaustive and expected to evolve over time.

Environment			
	Sub-Indicator	Measurement/Indicator	Credit impact
Resource management	Consumption of natural resources, i.e., water, energy	<ul style="list-style-type: none"> Energy consumption and energy mix (share of renewable energy), both absolute and like-for-like Water consumption (absolute and like-for-like) 	<ul style="list-style-type: none"> Reduced total energy and water consumption, resulting in less dependence on volatile energy prices and scarcer water supplies, thus lowering expenses and ensuring continuous on- and off-site operations.
	Circular economy	<ul style="list-style-type: none"> Use of recycled, renewable and eco-labelled materials Waste production (share of waste recycled, amount/treatment of hazardous waste...) Proportion of water that is reused/recycled 	<ul style="list-style-type: none"> Use of recycled, renewable materials could increase costs in the short term for raw materials but could also help to ensure availability of products and enable participation in a greater variety of tenders. Reduction of waste contributes directly to lower costs for materials, processing and disposal. Reused/recycled water provides independence from scarcer water supplies, ensuring continuity of on-site and off-site operations.
	GHG emissions	<ul style="list-style-type: none"> GHG emissions (direct: volume of waste generated, embodied GHG of materials used; indirect: emissions from subcontractors, final use of the end product) over time 	<ul style="list-style-type: none"> Measuring emissions and reporting them can show leadership in combating climate change, thereby attracting customers and satisfying regulators which is ultimately good for operational cash flow and lowers the risk of more onerous regulatory scrutiny.
	Biodiversity	<ul style="list-style-type: none"> Conservation of natural capital (vegetation of landfills with native species; the conservation of ecosystems by planting trees; habitat creation; developing plans to rescue wild plant life; protecting and limiting areas of natural interest, etc) Level of onsite disturbance Sourcing of materials Engagement with local community 	<ul style="list-style-type: none"> Gaining a strategic advantage by getting ahead of increasing biodiversity regulations and rising investor expectations. Avoiding costs and delays caused by protests about the biodiversity impact of new building projects. Minimise financial costs when damage occurs to ecosystem by avoiding fines, legal settlements, loss of operating licences, affecting operating costs and cash flow.
Efficiencies	Production process	<ul style="list-style-type: none"> Use of BIM or similar processes/tools Use of innovative technologies, e.g., drones or augmented reality Modular Construction 	<ul style="list-style-type: none"> Improving the efficiency of the construction process allows for better resource management and shorter lead times, ultimately reducing costs and working capital. Allows work in a more controlled environment, with less waste, and reduces the amount of time on site.

Environment

	Sub-Indicator	Measurement/Indicator	Credit impact
Product innovation	Technology	<ul style="list-style-type: none"> • Proportion of self-generated renewable energy • Use of Big Data Analytics in smart buildings 	<ul style="list-style-type: none"> • Self-generated renewable energy reduces exposure to risks posed by disruptions to energy supplies or increases in the energy costs. • Ensuring efficient transfer of data and knowledge improves performance. • Having the right data can provide valuable insights into all aspects of an organisation, leading to improved operational efficiencies. • Connected devices, sensors and wearable technologies can boost ESG performance in a range of functions, including energy usage, predictive machinery maintenance, waste management, budget control, and health and safety. Can cut maintenance backlog.
Physical risks	Force majeure risks	<ul style="list-style-type: none"> • Days per year with disruption to on-site operations or transportation activities (supply chains) 	<ul style="list-style-type: none"> • A high exposure to regions that suffer from extreme weather events or natural disasters leads to higher insurance premiums, more likelihood of disruptions of operations/delays, increased capex or higher working capital needs

Social

	Sub-Indicator	Measurement/Indicator	Credit impact
Labour management	Workforce metrics	<ul style="list-style-type: none"> Employee satisfaction, employee retention and turnover Gender diversity Gender pay ratio Talent management 	<ul style="list-style-type: none"> The greater employee satisfaction, the greater an employer's ability to attract and retain skilled staff, reduce turnover, control staff costs, and enhance productivity (less downtime, lower restructuring and litigation costs). Staff-diversity reporting beyond mandatory minimum requirements can limit risk of future penalties. Increasing transparency over gender pay ratios can satisfy legislative scrutiny and mandatory reporting requirements covering pay differences, such as those being rolled out across the EU. The industry's need for skilled staff is growing. Appropriate talent management ensures the availability of the right staff and know-how to support the company's competitive position
	Health and safety	Health & Safety	<ul style="list-style-type: none"> Number of incidents and or illnesses on-site and off-site (suppliers) caused by general working conditions, equipment malfunction, accidents, personnel issues Absentee rate and number of work-related fatalities
Clients and supply chain	Local economic development	<ul style="list-style-type: none"> Share of local contractors 	<ul style="list-style-type: none"> High proportions of local contractors benefit the company's reputational standing in the local market. Use of local suppliers and services will lower costs and save time. Benefits flow from local knowledge and expertise.
Regulatory and reputational risk	Regulation	<ul style="list-style-type: none"> Adherence and reporting on local regulations as well as internal policies and procedures Political risk 	<ul style="list-style-type: none"> Anticipating and adapting to changes in local regulation reduces the risk of penalties, expensive late-stage fixes. Applying internal policies and procedures across markets minimises overall litigation risk as they are typically designed to limit political/regulatory risk in the most mature markets
	Reputation	<ul style="list-style-type: none"> Long-term goals including reporting/disclosure of relevant KPI's Social license to operate Brand image of the organisation 	<ul style="list-style-type: none"> A focus on sustainable targets, instead of maximising short-term profit, helps establish a company's standing as a reliable long-term partner for all stakeholders.

Governance			
	Sub-Indicator	Measurement/Indicator	Credit impact
Management and supervision	Board structure and effectiveness	<ul style="list-style-type: none"> Board independence. Competency and diversity of board members Effectiveness of oversight, risk management and internal control mechanisms Sustainability targets at board and executive management level 	<ul style="list-style-type: none"> Ineffective board or lack of controls can result in poor decision making and failure to achieve strategic goals. Tight controls are vital to minimise fraud, theft, or misapplication of company resources.
	Risk management	<ul style="list-style-type: none"> Risk management framework and culture. Risk adjusted return/performance measures. 	<ul style="list-style-type: none"> Risk awareness at all levels of an organisation is crucial for effective strategic, operational and financial risk mitigation.
	Bribery and corruption	<ul style="list-style-type: none"> Frequency and magnitude of bribery and corruption incidents. 	<ul style="list-style-type: none"> Adverse reputational consequences can lead to regulatory reprimands or fines, loss of assets, and/or operating licenses.
Clarity and transparency	Financial disclosure	<ul style="list-style-type: none"> Timeliness and quality (GAAP) of disclosures. Comprehensiveness of disclosure (e.g., terms of loan agreements, contingent liabilities, related party transactions, ownership structure etc). Consistency in reporting formats. 	<ul style="list-style-type: none"> Rapid and comprehensive financial reporting instils confidence and signals strong and effective internal controls. Conversely, slow and incomplete reporting may signal weak controls, incompetence or attempts are hiding something (creative accounting).
	Transparency of communication	<ul style="list-style-type: none"> Earnings call and investor presentations that help stakeholders understand the drivers of company performance, its strategy and direction. Risk factor (incl. ESG-related risks) and sensitivity analysis. 	<ul style="list-style-type: none"> Transparency is often associated with a strong governance culture. Understanding and openness about risk factors allows a company to hedge against risks and prepare mitigation strategies.
Corporate structure	Complexity	<ul style="list-style-type: none"> Complex and in-transparent ownership structure (nominee holdings hiding true owners). Complex group structure. Complex debt structure. Significant related party transactions. Aggressive tax optimisation strategies. History of frequent legal or regulatory infractions. 	<ul style="list-style-type: none"> Opaque company ownership, cross holdings, and significant minority interests may hide conflicts of interest. Complex debt structures can result in unexpected events of default and cross acceleration. Related party transactions can disguise inappropriate diversion of company assets. Aggressive tax strategies can backfire and result in unexpected tax penalties, negative publicity, and reputational damage.
Stakeholder management	Stakeholder relations	<ul style="list-style-type: none"> Respect and balance of interests of all stakeholders. 	<ul style="list-style-type: none"> Stakeholder disputes may have negative reputational and financial consequences.
	Shareholder distributions	<ul style="list-style-type: none"> Financial policy clarity, consistency, credibility, and track record. Board level endorsement of financial policy. 	<ul style="list-style-type: none"> A clear and credible financial policy helps management meet strategic targets and manage stakeholder expectations.

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