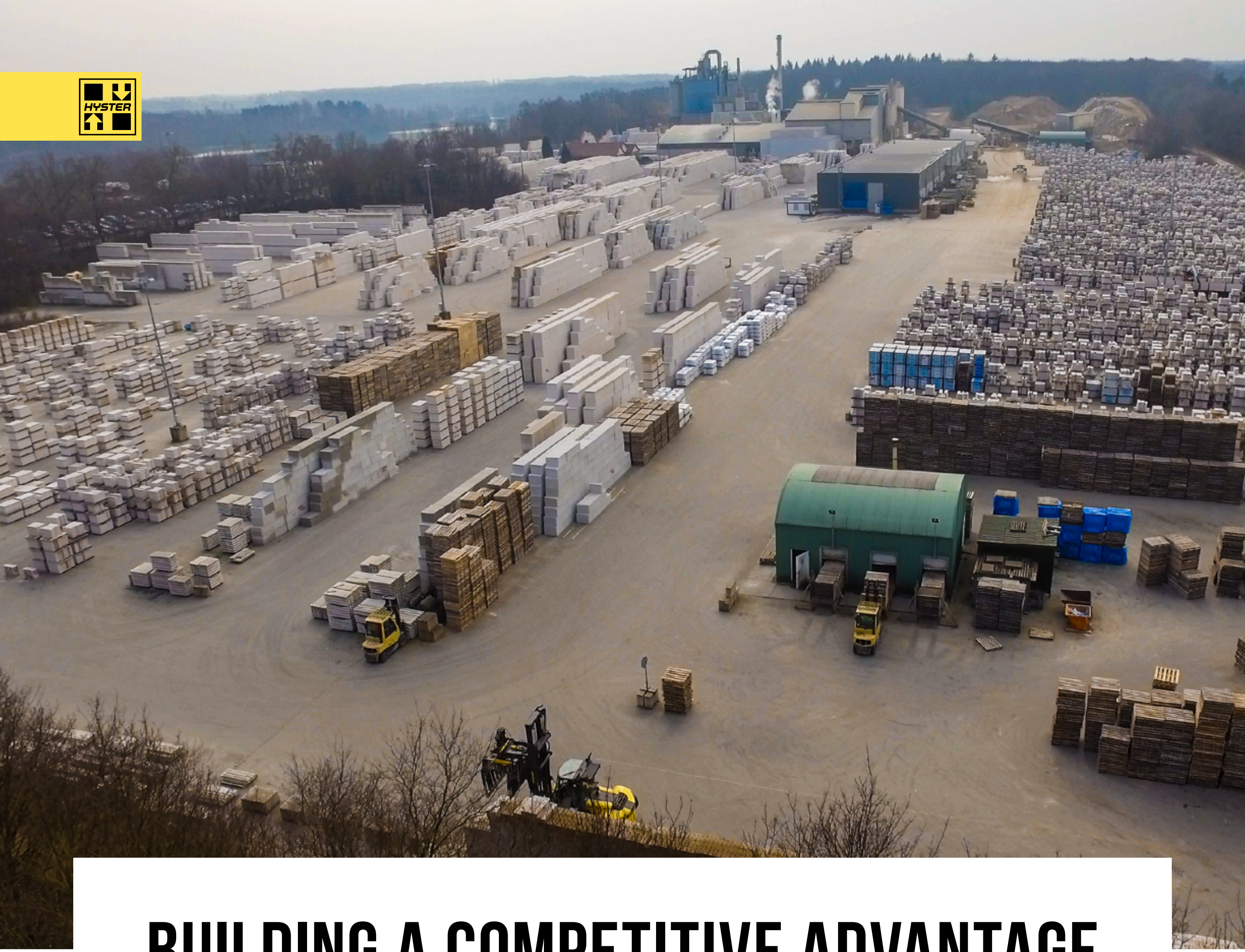


BUILDING A COMPETITIVE ADVANTAGE

The extraction of raw materials through mining, quarrying and forestry. Constructing infrastructure and buildings. Manufacturing and supplying materials and products. Maintenance, operations, and waste disposal. All of these activities form part of the construction industry, a highly diverse sector that is cemented into the fabric of society and the economy across Europe, the Middle East and Africa (EMEA).

To give this scale, the construction industry represents around 13% of global GDP (Gross Domestic Product) with an output of around $7.5 trillion per year and 18 million workers. In Europe specifically, this sector accounts for 9% of European GDP, and has increased, with a 3-4% annual growth over the past five years.

At various touchpoints throughout the construction supply chain, materials handling is central to operations, but like many industries, the field of construction is evolving. This presents new challenges for materials handling that require effective solutions, fast. However, with change comes new opportunities and innovations, that could help businesses to harness the power of their lift truck fleet to gain a competitive advantage.

// COVID-19 AND CONSTRUCTION

Before we continue, it is important to address the impact of the Covid-19 pandemic on the construction industry.

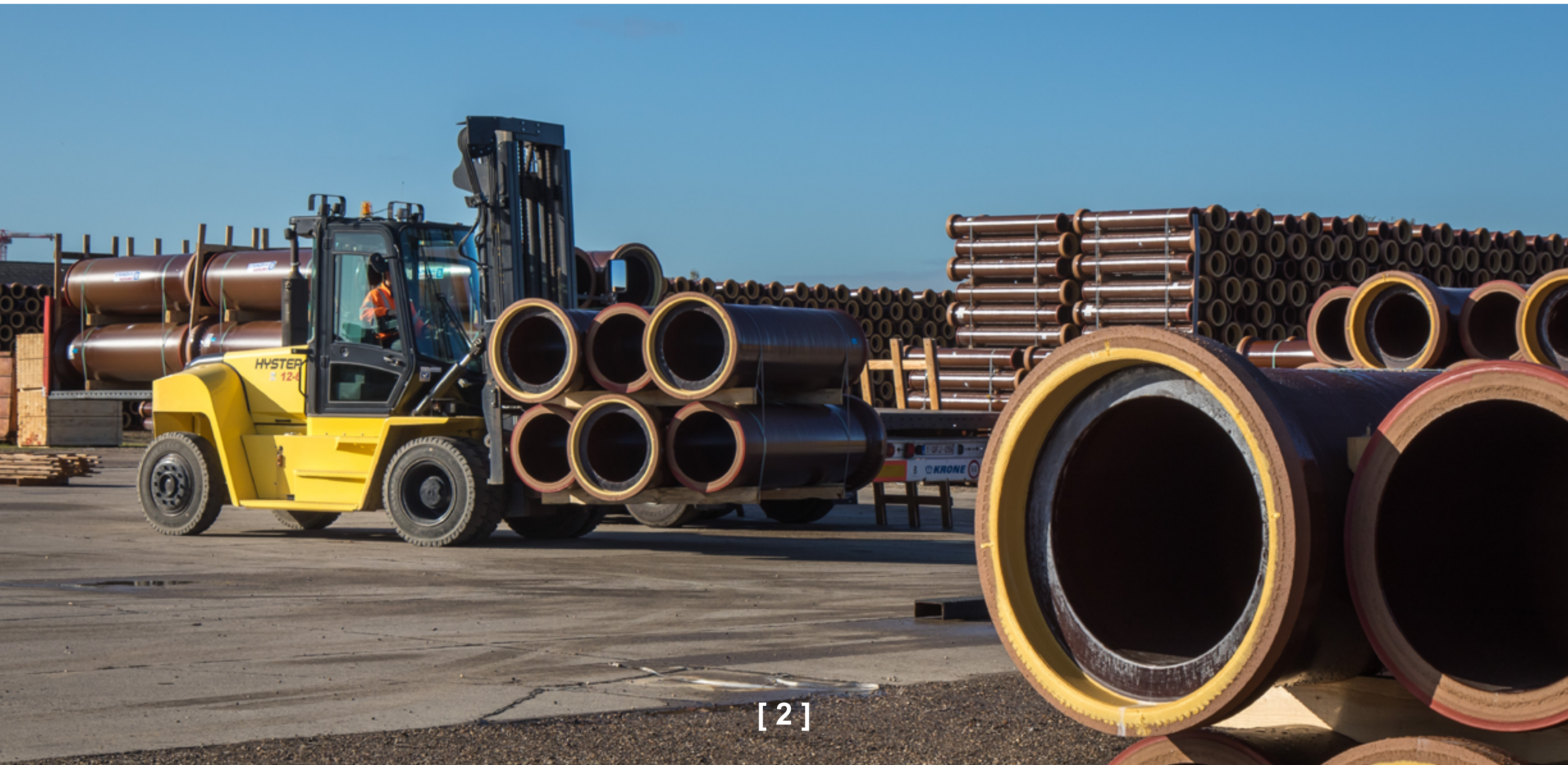
In the European Union, construction output decreased significantly during 2020, and both residential and commercial construction sectors are expected to grow more slowly than previously anticipated. As certain commercial industries struggle post-Covid, the associated sectors of construction may also continue to decline even after the rest of the economy begins to recover.

Conversely, infrastructure construction is predicted to maintain growth momentum, supported by public spending. And DIY renovation and construction projects are driving demand for building materials from those making improvements while spending more time at home, so DIY retailers and wholesalers have seen unexpected growth.

However, although production of materials has been restored to pre-pandemic levels in most countries*, the supply chain itself remains under strain in some areas, so getting materials and equipment where it needs to be (and when) could be problematic for some.

In the Middle East and North Africa, it is a similar picture. 2020 saw a decline in the sector, though a modest recovery with growth of 1% is anticipated in 2021, rising to 4.1% in 2022. The construction industry in this region is affected not only by the impact of Covid-19 and lockdowns, but also by issues around climate change, oil demand, and other restrictions on construction activity.

And this is true across EMEA. Many factors that existed before Covid-19 continue to challenge the sector.



SEVEN KEY CHALLENGES IN 2021

SKILLS SHORTAGES

1

Before the pandemic, the industry faced a shortage of skilled labour, and that hasn't gone away, just because construction projects have been delayed or cancelled.

Research in Europe has shown that several occupations relating to the construction industry are among those with the top shortages, including bricklayers, concrete placers and finishers, welders, and sheet metal workers.**

Covid-19 may also have added to this issue in some cases. Northern European countries for instance, would previously have relied upon resource travelling in from Southern and Eastern EU states within the construction industry. With borders closed and free movement restricted, these workforce shortages have been hard to fill.***

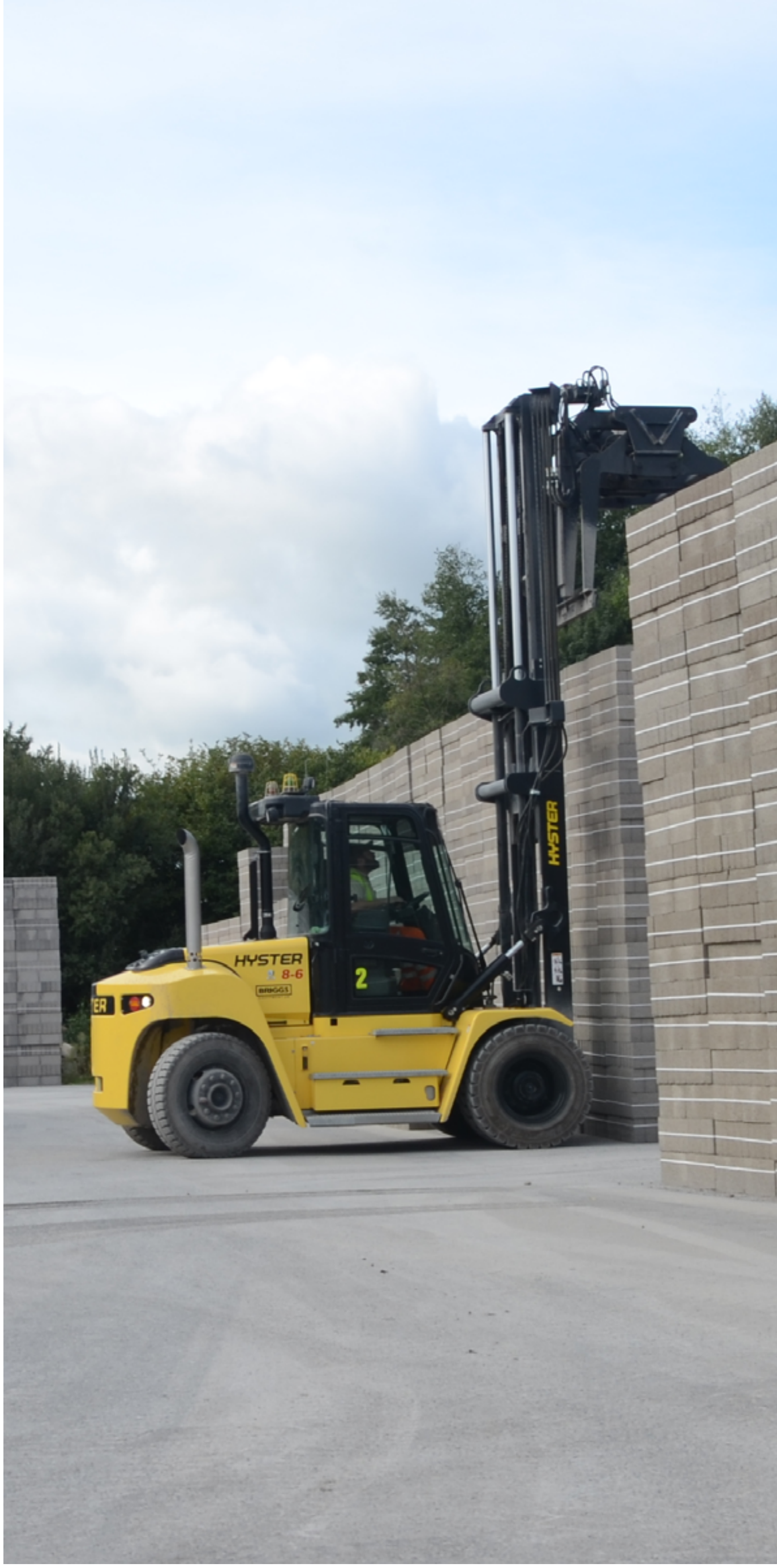
FLUCTUATING COSTS

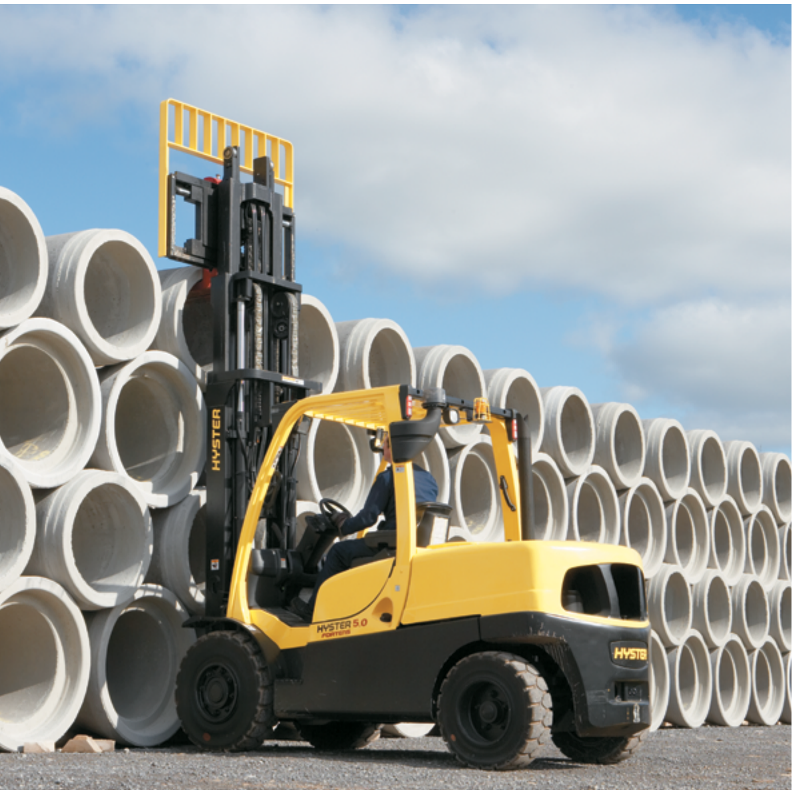
2

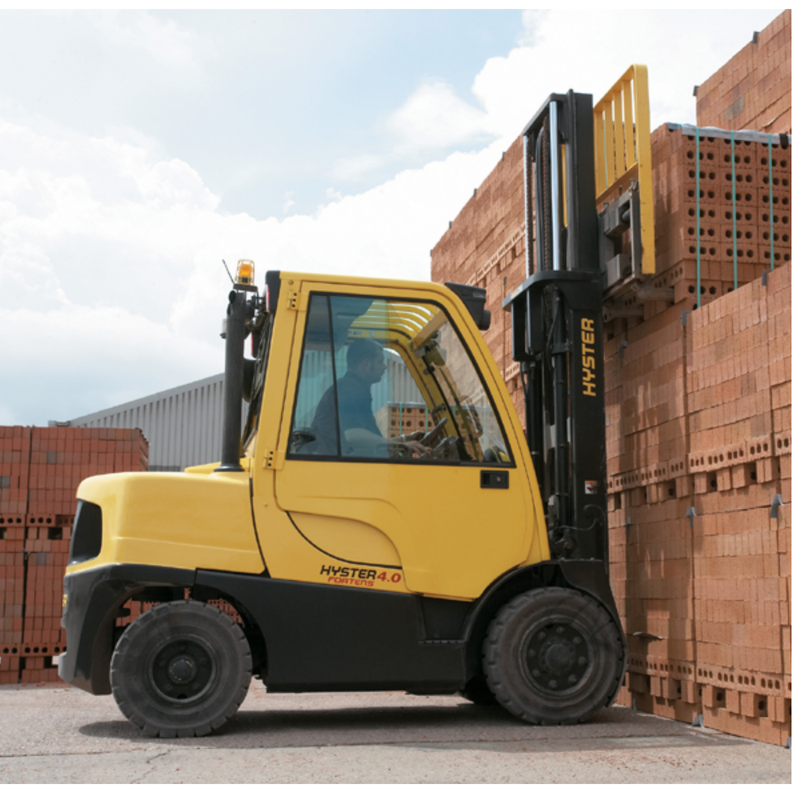
In general, construction costs are declining, so it is possible that profits could go down for lead contractors. Research indicates that prices are set to decline, partly due to the decrease in demand for contractors, but also because of the drop in oil price (with oil an important raw material in construction).****

Yet the prices of some specific construction materials are increasing. For some suppliers this may help sustain business even as demand declines. However, it could be a challenge for their customers during times of economic hardship.

With financial pressures and uncertainties, solutions such as used materials handling equipment and the short term hire of lift trucks can help operations to match the right solution to their budget, with added flexibility but without significant upfront investment in new lift trucks.







3

MANAGING A WIDE AND DIVERSE PRODUCT PORTFOLIO

The building materials industry comprises a vast array of products, from glass and tiles, to bricks and timber, each with its own unique specifications. Furthermore, customers are often demanding different (and custom) requirements in their order, whether in terms of colour, size, style, or other characteristics.

However, building material production processes can be complex. In a process manufacturing environment, minimising clean-up, set-up, and start-up times and costs is a huge challenge. Even a minor change to the product specifications at a customer's request can require manufacturers to interrupt a continuous production process for a protracted period, which (if not managed correctly) can lead to a spike in changeover times and costs, and a drop in efficiency.

Building materials manufacturers must be able to schedule their operations to produce goods in big batches, so that they can reduce changeover times and costs, and maximise performance. But they also must be capable of handling the wide and diverse product portfolio produced with an efficient lift truck fleet. The right truck and attachment combination is therefore key to success.

A further consideration is that the materials required to construct a building are also changing. Prefabricated and modular construction are increasing due to lower costs, simple off-site assembly, and time savings. To meet this demand, larger prefabricated panels and segments will likely be required that will need to be handled by lift trucks with suitable attachments. High-capacity electric trucks will give applications the opportunity to move these heavier loads of materials, and to do so within indoor warehouses due to the benefit of zero emissions.

ENVIRONMENTAL SUSTAINABILITY

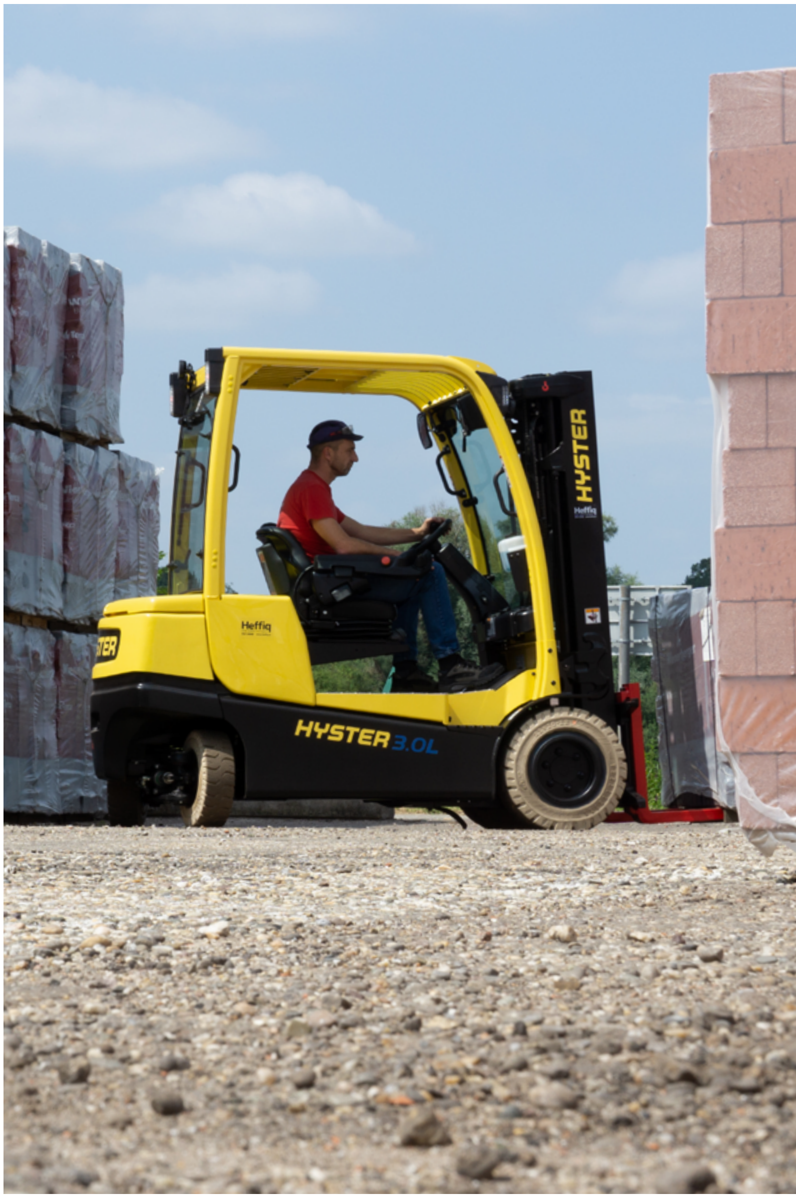
4

Some Governments are stimulating the economy by encouraging construction to meet carbon reduction targets, for example grants to retrofit houses to improve energy efficiency. Such incentives are set to drive a stronger demand toward more sustainable buildings, presenting an opportunity for growth in the construction sector.

However, when considering sustainability, it is important to consider that the building and construction industries are responsible for 39% of all carbon emissions in the world with operational emissions (from energy used to heat, cool, and light buildings) accounting for 28%. The remaining 11% comes from embodied carbon emissions, or 'upfront' carbon that is associated with materials and construction processes throughout the whole building lifecycle.

The industry is aiming to dramatically reduce its carbon footprint: 40% less carbon by 2030 and 100% net zero emissions by 2050. Many top building materials manufacturers are committed to developing carbon neutral products by 2050.

Achieving these environmental goals will require changes to materials handling equipment fleets throughout the construction sector, with trends towards alternative power for lift trucks, like lithium-ion batteries and fuel cells, emerging alongside ever "cleaner" combustion engine options.



ENERGY HUNGRY OPERATIONS

5

Energy is a significant cost for many building materials manufacturing companies. For example, energy costs typically constitute 40% to 50% of total manufacturing costs for tile manufacturers, who make their products in industrial scale ovens that run on natural gas.

Slashing energy costs can provide a boost to these companies' bottom lines, but materials handling equipment can also play a key part.

In construction materials applications, trucks are typically used close to capacity and sometimes in almost 24/7 operations. Effective fleet management and matching the right truck, with the right attachment for the job, and the right power source for the particular application can help bring energy costs down and improve efficiency, while also reducing maintenance and downtime. The Total Cost of Ownership according to the application demands is what businesses should look for here, not just the purchase price.

6

GOING DIGITAL

Customers are moving online, perhaps increasingly since Covid-19. They expect companies to provide easily accessible information and a good user experience for online sales, which is a new development for many businesses in this sector.

For construction materials producers, the challenge lies in staying on top of these digital trends, as well as maximising digital marketing tactics. In this sector, not all marketing and sales employees are well-versed in these techniques, so material suppliers need to increasingly look to recruit less traditional sales employees.

Technology and innovative use of data also has a role to play in almost all aspects of construction and the building materials manufacturing environment.

Technologies like artificial intelligence, robotic process automation and the Internet of Things are all important considerations for businesses trying to retain a competitive advantage, and they are not just limited to the production line. Materials handling solutions such as automated lift trucks, alternative power and telematics can be put into place to support the move to Industry 4.0.

7

PEOPLE FIRST

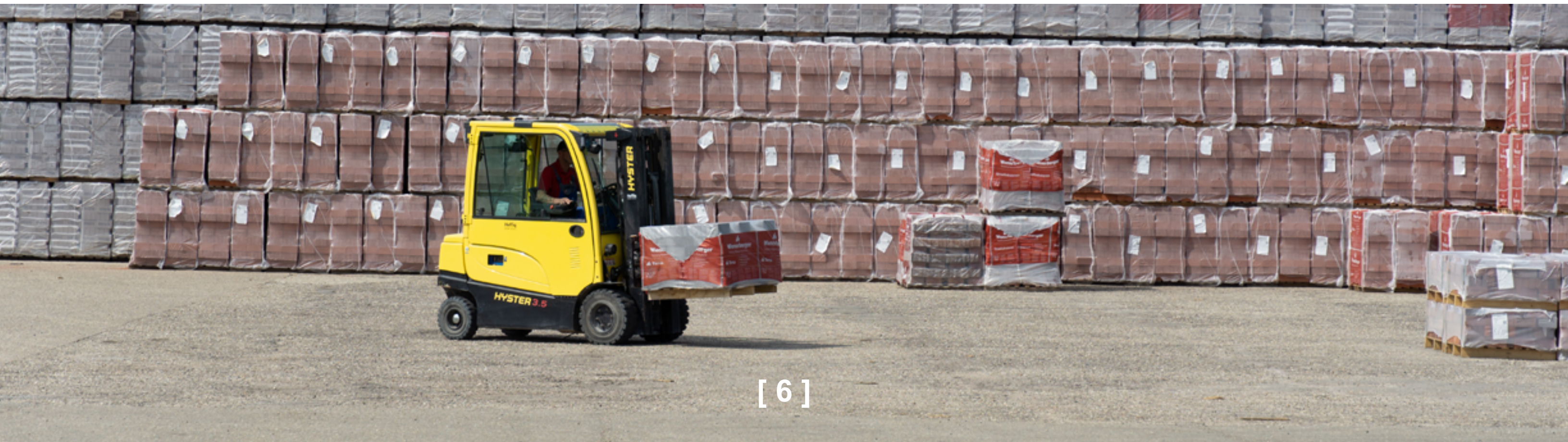
Following Covid-19, keeping people safe is higher on the agenda than ever before. However, the construction materials sector has always had health and safety considerations to contend with, such as issues caused by airborne fibres, dust, toxins, or high noise levels over long periods of time.

In many building materials operations, it is also a priority to reduce the risk of incidents involving lift trucks, which could result in injury or damage to equipment, stock, or infrastructure.

Historically, this sector has a reputation for having challenging working environments which are not ideal for manoeuvring or visibility. Driver assistance technologies, such as warning systems, lights, and object detection devices, can all help support operations looking to create a safe working environment.

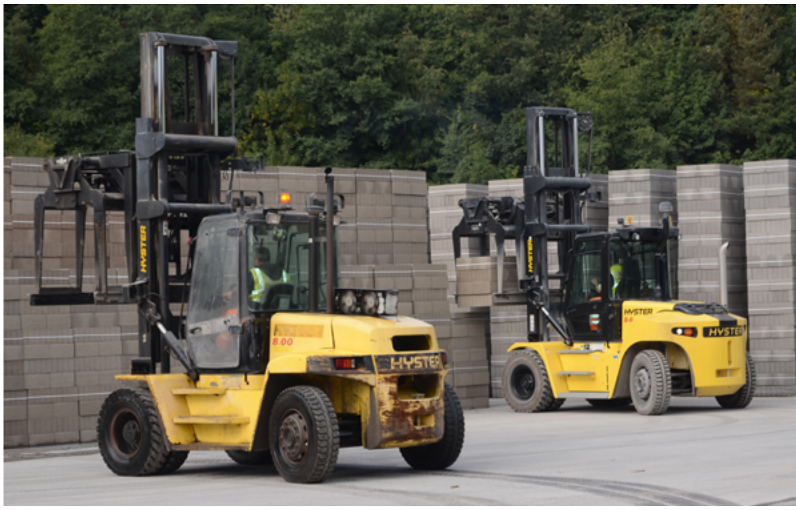
However, the right choice of lift truck, with good visibility as standard and optimal ergonomics can also help give businesses an edge when it comes to operator comfort and efficiency. In fact, the small details make a big difference over a full working day.

For example, in some applications where operators are getting on and off the truck dozens of times per day, it's got to be easy no matter how tall or agile the operator is. Or if an operator has to sit in the cab all day long for months on end, it has to be extremely comfortable and easy to operate, otherwise musculoskeletal issues, and the related sick days, may arise. What's more, reducing operator fatigue may also help to support productivity in operations, while reducing damage.



// LAYING FOUNDATIONS FOR THE FUTURE

Although recovery is expected across the construction sector, it may be slow, and profit margins are expected to be tight. That makes it more essential than ever for businesses to invest their budget in the right materials handling solutions. With an optimal fleet of modern lift trucks in place, operations will be in the best position to overcome the most common challenges facing the industry, and ready to gain the competitive advantage of embracing emerging sector trends.



* https://think.ing.com/articles/european-construction-outlook-2021-construction-output-recovering-but-to-a-lower-level#a17
** European Commission Analysis of shortage and surplus occupations 2020
*** MDPI Review of the Construction Labour Demand and Shortages in the EU Belinda Brucker Juricic 1,*, Mario Galic 2 and Sasa Marenjak 2
**** https://think.ing.com/articles/european-construction-outlook-2021-construction-output-recovering-but-to-a-lower-level#a15