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Building & Construction | Europe

Enablers of a Sustainable Built Environment – Our Key Takeaways

Common denominators: 1) construction customer top challenges are sustainability and productivity, 2) selling systems/solutions drives wallet share and margin, 3) a strong outlook for timber construction, 4) heat pumps are essential, 5) skills are a big bottleneck, and 6) regulation is moving forward

We hosted 18 companies across Building Materials, Capital Goods, Homebuilding and Contractors to understand their solutions and products for, as well as key hurdles to, enabling a more sustainable built environment. Some common themes emerged. [See primer for a discussion on business models.](#)

Selling systems drives market share and mix improvement. Construction customer key challenges are 1) skills availability/productivity and 2) sustainability. Bundling products and upselling can speed up construction times, result in less waste and drive better outcomes for building energy performance. Companies are moving from selling products to solutions/systems, but we learnt the broadest product portfolio is key to customer value and differentiation.

Timber is hot. Timber construction seems set to outgrow the construction market, albeit off a low base. It enables lightweight, modular construction, which increases productivity. Stora Enso and Steico suggested growth rates of 7-10%, at least double underlying construction spend. Engineered timber producers (e.g., Steico, Stora) should benefit, as well as those producing complementary lightweight materials and those exposed to the supply chain (e.g., Duerr). Skills can cap growth in onsite construction, hence the focus on modular opportunities.

Heat pumps are essential to low carbon homes. Persimmon and TopHat explained that heat pumps are essential to deliver low carbon homes. However, the type of heat pump (air sourced) and customer interface matter.

Skills can slow the transition. Mixed opinions on regulation. The industry seems "technology ready" for a step change in emissions associated with the built environment. Skills are a major obstacle. On regulation, some companies highlighted Fit for 55 / REPowerEU as a catalyst for stimulus to support growth in energy renovation. Building code regulations are evolving to support lower carbon cement/concrete, but only slowly. Some companies also highlighted Paybacks as a challenge when it comes to energy renovation upgrades.

Interesting innovations. ReCO2ver: Sika's concrete recycling technology. CarbonCure: carbon removal solution for low carbon concrete. TopHat: Building

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a home in a factory. Calix: At least halving the cost of cement carbon capture.

Powerpanel: Kingspan's insulated roof panel with integrated PVs. Hoffman

Green: clinker free cement with 5x less CO₂ than Ordinary Portland Cement.

Belimo: HVAC Field Devices Enabling Energy Savings In Non-Residential Buildings

We spoke to Dr. Markus Schürch, CFO, and Gérard Moinat, Investor Relations Manager, on Belimo's sustainability strategy and growth opportunities, focussing on energy savings across products' life cycle, payback and business drivers.

Key insights, in our view: 1) Low payback and high energy savings make Belimo's products attractive; 2) R&D and increased regulation, especially in the renovation market, are important growth drivers for the business; 3) managing the supply chain well is a key factor to Belimo's success; and 4) skills shortage in the construction market remains a key bottleneck.

Belimo's devices allow a CO2 saving of 24x on HVAC systems operations. Management told us the 24x CO2 saving is an average across their global product portfolio, with some actuators and valves achieving a 50x CO2 saving in some applications. Most of the CO2 emissions (90%) come from the power used in operations by these devices, with Belimo seeing further room for improvement. Importantly, the CFO told us overall payback across entire HVAC product suite can be a couple of years, which we consider relatively attractive in the context of energy renovation solutions.

Innovation through R&D and increased buildings regulation justify above market growth. Belimo is an innovation leader in the industry, spending c.7% of sales on R&D, on average, over the last decade. Innovation efforts are focussed on renovating, consistently upgrading and digitizing all of the company's existing portfolio, so products are simpler and quicker to install. Management also believes in potential growth opportunities arising from higher regulation standards applied to the renovation market, to which the company is planning on increasing exposure. Through its innovative strategy and supported by regulation measures, Belimo gained 3% market share since 2018, according to the company.

Managing the supply chain is viewed as key to Belimo maintaining the quality of its products. The company emphasized the importance of product design and consistent quality checking with its suppliers. Supplier relationships are well established and strong, ensuring product delivery even in tight market conditions. However, final assembly of products is always done in house, allowing for further quality controls and a degree of tailoring before shipping the product.

Skill shortage in the industry remains a significant bottleneck. Management cited a lack of skill set among plumbers and installers as a growth-limiting factor for the company. To address it, the company is investing in training initiatives geared towards its customers. Material availability is a current issue, but does not represent a significant bottleneck in the medium term.

Calix: Cost Competitive Carbon Capture Technology Enabling Cement Decarbonisation

Our discussion with Daniel Rennie, LEILAC Group CEO, and Darren Charles, Calix Limited CFO, revolved around Calix's licensed cement kiln technology, designed to capture process emissions from limestone calcination in cement production. We focussed on revenue opportunities, cost implications and main hurdles with broader adoption.

Key insights, in our view: 1) LEILAC technology has demonstrated the technology works and is able to capture 25% of process emissions; 2) subsidies and favorable regulation are seen as key to the business; and 3) main hurdles remain around CO₂ usage once it has been successfully captured.

LEILAC technology allows to capture 25% of process emissions. Calix is an Australia-listed company whose licensed technology enables cement decarbonisation. Specifically, it tackles cement's process emissions, which occur in the limestone calcination process. The Calix Technology, known as Low Emissions Intensity Lime And Cement (LEILAC), re-engineers the existing process flows of a traditional calciner, indirectly heating the limestone via a special steel vessel. LEILAC is a separate entity, of which Calix owns c.93%, with the remaining 7% owned by Carbon Direct. LEILAC technology can either be implemented as a "greenfield" build or fully/partially retrofitted; the technology is able to capture 25% of process emissions, which account for c.60% of total emissions in cement production. Costs are c.20/25 Eur/t of CO₂ abated; however, they do vary on a site by site basis. As a technology company, the business model consists in LEILAC licensing its technology to cement players and earning a fee, where a portion is destined to parent company Calix. We previously [compared](#) LEILAC technology with other carbon capture solutions.

Supportive regulation plays an important role. The fastest growth is expected to take place in regions with incentive mechanisms to decarbonize. Europe is the clearest leader, with the highest price on CO₂ emissions. North America has a different incentive mechanism (45Q), but there is ample room for improvement, according to Calix. Overall, global carbon pricing clearly supports scaling of the technology.

Once captured, the issue is where to use/store the carbon. Once captured, CO₂ can be either sequestered or transported through pipelines for other uses. Currently, the primary hurdle for Calix/LEILAC is enabling CO₂ transport and storage infrastructure. Indeed, storage only works where there exist specific geological formations, whereas transport networks are challenging and expensive to build.

CarbonCure: Enabling Savings In Concrete Emissions By Replacing Cement Through CO2 Injection

We spoke to CarbonCure's CEO, Robert Niven. Among the company's different technologies, we focussed on CarbonCure's carbon removal technology and how it supports concrete producers, reducing emissions and providing them with an additional revenue stream through voluntary carbon offsets.

Key insights, in our view: 1) Regulation on greener concrete and voluntary carbon markets are seen as key growth drivers for the business, 2) IP and branding protect the business from new entrants, and 3) software innovations are the next key focus for CarbonCure.

Regulation on sustainable concrete and voluntary carbon market policies are the two main growth drivers for CarbonCure. CarbonCure's technology retrofits concrete plants, allowing them to convert CO2 into calcium carbonate when injected in the concrete mix. This process reduces the need for cement in the concrete mix, improving the concrete's sustainability footprint. As a result, higher regulation on "greener" building standards is considerably important for the company's growth prospects. CarbonCure also engages with the voluntary carbon market, generating carbon offset certificates as a result of its technology. These certificates provide an appealing additional revenue stream, which can be shared with concrete producers.

IP on its technologies and a branding factor protect the business from new entrants.

CarbonCure has invested strongly in IP developments, and now holds 125 patents, protecting its technologies. The CEO also spoke about the importance of CarbonCure's concrete branding when it comes to building projects' specifiers, given the repeat nature of the business. Currently, the business operates primarily in the US, and plans to enter European markets in 2023/2024.

From here, software innovations are seen as essential to the business' strategy.

CarbonCure's partnership with Amazon allowed it to create a tool collecting data on CO2 removed and tracking all of its product's environmental impacts in the cloud. According to the company, this granularity on data tracking allows it to sell its carbon offsets at a premium. The CEO specified the majority of innovations the company will bring in the future will be on further improving the software side of the business.

Technologies not limited to carbon in concrete. We also learnt about CarbonCure's other technologies which support circularity and water management at concrete facilities. Ideally, the business looks to sell its solutions as a bundle.

Dürr: Solid Wood Machinery Equipment Provider Supporting Sustainable Timber Construction

We hosted Dürr's CFO, Dietmar Heinrich, and learnt more about the company's portfolio in solid wood construction equipment, overall market growth in wood construction and how Dürr intends to leverage its position.

Key insights, in our view: 1) Demand for sustainable construction is growing rapidly, as timber modular construction is becoming increasingly popular; 2) Dürr's strategy focuses on innovation, efficiency and increasing its global footprint.

Modular construction is becoming increasingly popular. Through its Homag business (~40% of group revenues), Dürr designs machinery and equipment for the production of wood destined to furniture and floorings (90% of revenues) and construction elements (10% of revenues). Dürr's CFO spoke about a growing trend in timber modular construction with Germany as an example of increasing adoption. Dürr expects a 6% CAGR growth in prefabricated timber buildings, both residential and non-residential, with overall share of total timber buildings around 25-30% across the country.

Solid wood construction market growth: Dürr sees the solid wood machinery market growing at a 6.4% CAGR through 2025 ie. a ~30% market volume growth. Sustainability is seen as the key growth driver, with recent order wins underpinning the potential of the market.

Innovation and efficiency are at the core of Dürr's strategy. The group targets 2-3% annual average organic sales growth in the medium term, supplemented by M&A, by investing in innovation, efficiency and increasing its global footprint. Dürr's CFO told us that the company is constantly focussed on innovation and that part of its success can be explained by its flexibility in tailoring the design of its wood machinery according to customers' requests.

Exhibit 1: Through Homag, Dürr is exposed to the furniture and construction markets



Exhibit 2: Construction trends point to higher timber adoption



Eiffage: French Conglomerate Building Sustainable Cities

We learnt about Eiffage's sustainability efforts across different business divisions with Xavier Ombrédanne, Director of Finance, Treasury and IR.

Key insights, in our view: 1) Growing in sustainability, but project economics remains main focus; 2) limited opportunities to build a competitive advantage; 3) energy transition remains a powerful tailwind for the Contracting business.

At the centre stage of Sustainable construction, but not a driving force. As a major European contractor, Eiffage lies between the materials / solutions & technology providers of sustainable construction and final clients. It is proactively pushing multiple innovations (via pilot projects, add-ons like project € + CO2 quotes, in-depth review of procurement to measure/optimize carbon component of offering, etc.). Yet in the end, Eiffage is technology agnostic vs. the upstream (the materials/solutions providers) – there, more work needs to be done on price parity (like for low-carbon cement) to push for mainstream adoption. The final decision on greater adoption of sustainable project options lies with the client, where the focus remains on project economics (payback of more sustainable solutions vs. classic offering).

A must-do, but limited opportunities to build a competitive advantage for now. Eiffage is active on many pilot projects for sustainable construction (17-story wood tower Hyperion, for example), which enable it to improve construction methods, showcase expertise to customers, progress on certification. It invests in new concepts / start-ups (B3 Ecodesign for sustainable, economical housing from used sea containers, Savare for offsite construction of wood panels), as well as invests - modestly - in R&D (new processes for more sustainable road paving via greater recycling and use of bio-sourced aggregates). However, this is still seen as a must-do and a 'defensive' move (remain relevant in the integration of others' technologies/sustainable solutions) rather than the build-up of a lasting competitive advantage vs. peers, engaged in similar ventures. Price - and what makes a contractor cheaper (i.e. better internal organisation, better access to resources/equipment, better design, better local knowledge, etc.) - is still the dominant factor in winning projects, although regulation/law should broaden the selection processes over time (French law just adopted requiring clients to use other factors than price - esp. environmental credentials - in choosing a project winner, although this will come into force only from mid-2026). Beyond price, the company also sees a need to work on scalability of solutions (industrialisation of processes, with greater emphasis on offsite building to lower CO2 footprint, waste, noise, better allocate staff resource, etc.).

Bigger picture, the energy transition remains a powerful tailwind for the Contracting business. Energy renovation (strong momentum with short/improved payback for clients - Eiffage Construction and Eiffage Energy Systems), Renewables (offshore wind farm foundation/rotation pieces, substations - Eiffage Infrastructure; solar PV, T&D - Eiffage Energy Systems), new French nuclear developments (Eiffage Infrastructure / Eiffage Energy Systems), decarbonisation of Transport / Toll roads (free-flow tolling systems, EV charging stations - Eiffage Concessions via APRR; Grand Paris Express - Eiffage Infrastructure) continue to offer multiple opportunities to grow the business, with less focus on building more and emphasis on (re)building better.

FLSmidth Co.: Technology And Solutions To Enable Cement Customers To Go Carbon Neutral

We spoke about FLSmidth Co's different opportunities within the market of green cement with Carsten Riisberg Lund, President of Cement Industry, and Jannick Denholt, VP, Head of Investor Relations.

Key insights, in our view: 1) FLSmidth's equipment solutions for green cement ultimately depend on end user demand for green cement, 2) the company targets a 2030 solution allowing CO2 free production of cement, 3) innovation in machinery/equipment is a continuous process for the company, and 4) FLSmidth has an integrated presence in equipment enabling cement decarbonisation.

Ultimately, FLSmidth's equipment solutions for green cement depend on end user demand for green cement. FLSmidth provides innovative engineering, equipment and service solutions to the global mining and cement industries. Its cement division accounts for c.33% of group sales. FLSmidth enables cement companies to produce "greener" cement through its innovative equipment and machinery. As a result, demand for its products and overall size of the market for green cement ultimately relies on end user appetite for green cement. In turn, this can be supported through more stringent regulations on sustainable buildings. Clearly, in markets with carbon pricing mechanisms in place, demand for enabling machinery is higher.

By 2030, FLSmidth wants to sell a solution allowing producers a CO2 free cement production. According to Carsten, demand for this type of solution would vary by geography: some parts of the world are further away from this road, some are down that road already. The company is also active in the carbon capture market, as it is working on relevant product offerings for cement producers.

Innovation is seen as key to FLSmidth's success. FLSmidth is continuously working on innovating its product portfolio. To enable clinker reduction, the company has recently developed a system supporting calcined clay and is in the process of releasing a new product in the same area. Constant dialogue with clients is viewed as essential to understand evolving industry needs and speed up innovation.

Technology maturity. FLSmidth is present in all 4 stages of Cement decarbonisation: (i) Efficiency, (ii) Fuel Substitution, (iii) Clinker reduction, (iv) Carbon Capture. Technology in the first 2 stages is generating very good traction already, while the 3rd pillar is also more mature, according to the company. New efforts and R&D are focusing on the final stage, with FLSmidth at the forefront. The strategy relies not only on lower emissions, but on lower cost of ownership for clients, reducing the Capex and Opex needs.

Holcim: A Leader In Cement Decarbonisation, Broadening Into A Solution Provider Across All Building Materials Via M&A

We discussed with CFO Géraldine Picaud Holcim's strategy to achieve its industry-leading decarbonisation target of 475kg CO₂/t cement, particularly by promoting adoption of low-carbon products. We also touched on the group's M&A strategy looking at expanding the Solutions & Products division.

Key insights, in our view: 1) Branding greener cement and concrete supports adoption and increases customer awareness, 2) expanding in the Solutions & Products division through M&A provides Holcim with cross-selling opportunities in construction projects, and 3) sales channels and discussions for the business have fundamentally changed.

Branding green products increases customer awareness and supports growth. Holcim was the first corporate to brand its green concrete, EcoPact, and green cement, EcoPlanet. As more tenders in construction factor in CO₂ considerations, having a product aligned was strategically important, according to the CFO. Despite construction being a local market, the brands are global, given the decarbonization issue is also a global one. Holcim sells its green branded products at a premium; currently, EcoPact represents 10% of total concrete sales and remains an important growth engine for the business. The group targets EcoPact to be 25% of all ready mix sales by 2025. Holcim is also focussing on increasing the recycled product share in its cement composition, currently at 30%. The CFO spoke about a more reactive European community on the recycling front, both from a regulator standpoint and from industry players' perspective. These initiatives will support Holcim's industry-leading decarbonisation target of 475kg CO₂/t cement by 2030.

Solutions & Products supports cross selling opportunities. Holcim's strategy also focusses on investing in energy efficient products across the whole building envelope, expanding its Solutions & Products business through M&A. Following its Firestone acquisition, a non-residential roofing player, it has bought Malarkey, a residential focussed roofing company. Increasing its product offering allows Holcim to increase its wallet share in construction projects, lift margins and obtain synergies on the cost side, such as procurement.

Greater focus on decarbonization has fundamentally changed Holcim's sales approach. As regulation, particularly in Europe, pushes for increased decarbonization, construction tenders have changed. Conversations are less about price and more about product performance. Exposure to roofing also allows Holcim to have access to key stakeholders early on in construction projects; as a result, the business is able to leverage these sales relationships to push more of its other products in a given project.

Hoffmann Green Cement Technologies: A Cold, Clean Process To Produce Clinker-Free Cement

We discussed with CFO Jérôme Caron Hoffmann's CO2 free cement production. We learnt about the company's plans to scale production, as well as to diversify its revenue stream by licensing its patented technology internationally.

Key insights, in our view: 1) Hoffman's clinker free cement has a carbon footprint that is 5 times less than Ordinary Portland Cement (OPC). 2) Its product is priced at a c.100% premium to OPC, but this is not seen as a negative in commercial discussions with customers, rather focussed on the sustainable characteristics of the product (possibly this could be due to generally low volumes sold at present). 3) Hoffmann Green aims to expand internationally through licensing its patented technology. 4) Raw material availability is not an issue currently.

Clinker-free cement 101: Management noted that Hoffmann Green Cement is the 1st producer of low-carbon, clinker-free cement in the world. It has developed an innovative manufacturing process that wholly differs from traditional cement making – a cold activation process achieved by mixing co-products from industries and construction (slag, clay, gypsum) with activators and superactivators. The clinker-free cement produced has a carbon intensity that is 5 times less than Portland Cement CEM1, according to management. Hoffmann currently holds a 3% market share in the French market and is looking to increase this as a second cement plant will come online. Costs for the second plant are estimated around EUR22m, for a 250k tonnes capacity; given no kiln is needed, it is significantly less expensive vs. traditional cement plants.

Hoffmann Green's cement is priced at a premium. We learnt that Hoffmann Cement enjoys a clear premium positioning vs. Ordinary Portland Cement (OPC). It is currently priced at 2x OPC per tonne. However, the company did say that scaling production further could reduce the pricing premium over time.

Future internalization relies on licensing model. Hoffmann Green currently generates the majority of its revenue in France. The company also sells internationally by licensing its activation technology: the priority remains Europe, due to its maturity on carbon regulations and its low volatility. Given the CAPEX light model for licensing, the international business will have a higher profitability. By 2035, the company believes it will have a balance between revenue generated in France and internationally.

Raw material availability is not an issue. Hoffmann has long-term contracts with different providers of raw materials and is not dependent on one raw material only. All raw materials and by-products used are widely available in France, Europe and around the world. For instance, Europe holds around 5m-7m tonnes of slag available, despite the company claims that it only needs 300k tonnes of the same material by 2023.

Kingspan: Insulation And Efficient Building Envelope Solutions, With A Focus On Non-Residential

We talked to Catriona Nicholson, Investment Relations Manager at Kingspan, on the business's sustainability solutions and strategies. Our discussion focussed primarily on Scope 3 emissions and Kingspan's efforts to reduce emissions along its supply chain.

Key insights, in our view: 1) Offering solutions across the building envelope (e.g., bundling panels and day lighting solutions) improves sustainability features of a product and drives stronger revenue growth. 2) Engaging with suppliers is key to achieving reductions in Scope 3 emissions. 3) Circularity and recyclability of the products are a key focus. 4) Kingspan's exposure to different geographies and renovation end-markets makes the business more resilient to macroeconomic downturns.

Selling solutions supports top-line growth and margins. We learnt about the example of an integrated insulated panel with solar PV, which enables easy installation to insulate and generate. Panels, being a structural product, tends to typically lend itself to new build; renovations such as a roof replacement, however, can be done without disruption. Therefore, offering a comprehensive roofing system solution compounds the sustainable impact for buildings and also drives growth (i.e. gives greater access to the renovation market).

Decarbonising the supply chain is key to Scope 3 emissions. Scope 3 emissions currently represent around 94% of Kingspan's emissions. The company is undergoing a series of initiatives to reduce these emissions, both by integrating along the supply chain with its own equity and by partnering with key suppliers. It recently invested in H2 Green Steel, a company set to produce steel with 95% less embodied carbon by 2024.

Circularity is much broader than just recycling. Kingspan is undertaking efforts to bring more renewable materials into its products. Product durability is also important, and IR also emphasized how building regulations need to be updated to allow more circular thinking and enable the re use of products, especially on demolished buildings. To this end, Kingspan has partnered with [PolystyreneLoop \(PS Loop\)](#) Cooperative in the Netherlands to recycle EPS and XPS demolition waste. PS Loop's factory is expected to recycle 3,300 tonnes of waste per year once fully operational. Kingspan has also partnered with ECOALF foundation in order to recycle ocean plastic and use it in its own production process. It aims to recycle 1bn bottles per year by 2025. These recycled plastic bottles will be used to produce PET, a raw material used in the manufacture of insulation.

Kingspan thinks it is better positioned vs. 10 years ago in case of a recession.

Geographically, Kingspan is less dependent on the UK & Ireland only vs. the GFC period, and is now exposed to markets which are still early in their building cycles. Additionally, the company believes the conditions are different, as there is not a similar level of excessive building this time. Lastly, the company has a higher exposure to renovation, which traditionally tends to be less volatile than new build in a market slowdown.

Legrand: Enabling Electrification Through Low-Voltage Infrastructure

We discussed with CEO Benoît Coquart Legrand's exposure to sustainability through its product offering and its ambitions going forward.

Key insights, in our view: 1) There is a material opportunity for energy renovation upgrades that is underappreciated; 2) regulation helps, but paybacks to building owners are very important; 3) long-dated upside; and 4) demand for solutions that enable building energy efficiency should outgrow underlying demand.

20% of products target energy efficiency upgrades: Legrand is a pure-play in the building sector, and Mr. Coquart pointed out the business is not an energy services provider but specialises in electrical and digital infrastructure / projects. End market is 40% in Residential, 40% Non-Residential, 10% Data Centres and 10% in various fields. The business has 300k SKUs. In terms of products directly connected to energy efficiency, Legrand estimates this is 20% of products. Examples include, for residential, smart thermostats, as well as products that help save energy in data centres. All these products together represent ~21% of SKUs. Legrand is focusing more on small- to mid-size buildings, rather than large ones; most of its sales are made to buildings below 1500 square metres (which represents 80% of buildings in Europe at the moment). Legrand highlighted the energy upgrade potential, as it believes most energy inefficient buildings are the smaller ones.

Between Residential, Non-Residential and Data Centres, uptake in energy efficient solutions is split across all end markets as energy inefficient buildings span all segments. Legrand believes it will take a long time to make them efficient. The real problem therefore is how to tackle the renovation side. Again, this problem is much more evident in small-size buildings.

Regional trends: When thinking about different regions regarding inefficiency Mr. Coquart highlighted that Europe probably lags simply because the buildings are old. He highlighted that 39% of Greenhouse Gas emissions are coming from buildings, yet much focus is on decarbonising transport.

Accelerating upgrades is a challenge: In terms of accelerating upgrades, we asked if regulation is a bottleneck. Mr Coquart stated awareness is improving. Regulation is helpful but improving the payback to building owners is important. Ultimately, people will not invest if they cannot see a tangible payback within a certain time frame, in his view. A number of countries have implemented incentives to make the payback shorter – Legrand has seen improvements (e.g. Italy). Additionally, passive solutions are not enough, Legrand thinks we need both active and passive (active being automating task / monitoring energy consumption of the building etc.). In terms of when demand will really accelerate, Mr Coquart highlighted that even Fit for 55 will take a lot of time to implement.

On green revenue mix: Legrand has the target to take green mix of revenues from 20%

to 80% by 2030. 80% represents both energy efficient products and products with a sustainability profile. Therefore, today, that 20% is actually already 75%. The company is committed to energy efficiency products moving from 32% of sales to 50%. In terms of driving this to 50%, Legrand believe it will be a result of targeted effort and faster underlying market growth. The traditional products are growing in-line with GDP, whilst the green products are growing faster than GDP. Legrand further intends to boost these categories and their relevance in the sales mix via R&D and M&A.

EU taxonomy and its potential impact: 21% of Legrand's sales are generate by energy saving products, yet the taxonomy covers only 8% of sales. In order to explain the difference Legrand highlighted that it wanted to ensure its taxonomy disclosure was robust. Legrand also highlighted that the EU taxonomy does not take into account a number of businesses e.g. distribution, or, for example, that 0% of one's sales can be taxonomy eligible if used in Data Centres. Hence the challenge and the wide gap between taxonomy sales and Legrand's energy efficiency sales.

Data Centres outlook: Two-thirds of this business is in the US due to M&A. Legrand sees potential to grow geographically and product-wise via organic and inorganic opportunities. As for market dynamics, Legrand does not see the demand for Data Centres slowing down (the need for data management is only becoming more important). Going forward, optimism for the growth of the market.

Nibe: Heat Pump Pure-Play

We hosted Nibe's CFO, Hans Backman, and discussed current heat pump penetration, growth opportunities and Nibe's strategy and positioning within the market.

Key insights, in our view: 1) Regulation and subsidies remain key drivers for the business; 2) heat pump penetration is still low, and competition going forward will be intense; 3) Nibe's M&A strategy is focussed on expanding its product range; and 4) skills shortage is a key bottleneck for the industry.

Regulation and subsidies are expected to drive heat pump adoption. REPowerEU, the European's Commission latest plan to cut dependency on Russian gas, targets to double the current deployment rate of individual heat pumps, resulting in a cumulative 10 million units over the next 5 years. Despite this target supporting demand for heat pumps, governments would need to take more concrete actions if they intend to reach the EU's emission goals, according to Nibe. The CFO mentioned the Netherlands as an ideal example, where gas heating systems will be banned in new buildings from 2026. Other discussions to improve the economics of heat pumps revolved around a potential tax on oil and gas heating; the underlying idea is that heat pump manufacturers should be able to run profitable businesses in the absence of subsidies going forward.

Despite heat pumps having been around for decades, the market is relatively still in its early stages. Despite relatively attractive growth prospects, Nibe thinks we are currently past the stage where the industry attracts new entrants, as required technical standards and regulation discourage new players. Given product similarity, competition will primarily arise from HVAC manufacturers and gas legacy companies such as Veillant, Borsch, Veissman, etc. However, Nibe believes its product quality, expertise and multi year presence can enable it to gain further market share, despite its products not being protected by patents.

M&A will remain a key part to Nibe's story. M&A has been a key component of Nibe's growth story over the last decade, and will continue to be so. The company spoke about the opportunity of increasing exposure in the commercial sector, adding on ventilation and cooling to its product portfolio, therefore "owning" the entire climatization of a building. Exposure to commercial end-market also changes sales channel, as the company engages with project leaders, architects and builders rather than home owners.

Skill shortages expected to be a major bottleneck going forward. Skills shortages on heat pump technology, cited by [Persimmon](#) as well, remain a key bottleneck. The company is trying to address this issue by training installers, as well as building products that are easier to install.

Persimmon: UK Volume Homebuilder Enabling Energy Savings Through Net-Zero Homes

We hosted Duncan Shaw, Group Technical Director, Damian Seddon, Group Commercial Director, and Julia Nichols, Group Strategy & Regulatory Director. We focused primarily on Persimmon's sustainability strategy and initiatives to deliver in a changing building regulation backdrop.

Key insights, in our view: 1) Managing the supply chain is key for Persimmon's success – upstream investments in timber construction are expected to drive growth; 2) heat pumps will play a key part in Persimmon's business, although skills shortages remain to be addressed; and 3) Persimmon's sustainability targets will depend on ultimate home users.

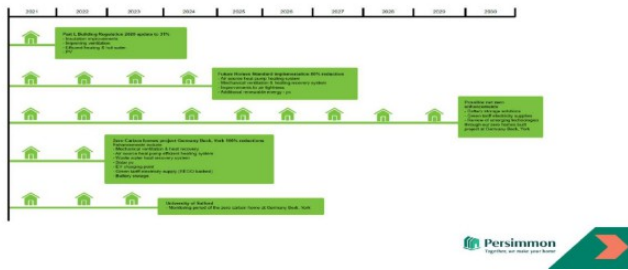
Supply chain management is key. Managing its supply chain adequately will be of primary importance for Persimmon in the context of sustainability targets. Management explained how early engagement by its R&D team with suppliers supports the sourcing of lower carbon materials. Persimmon has also recently launched *Space 4*, its own timber construction manufacturing unit. The decision of investing upstream rather than developing relationships with 3rd parties is mainly due to a higher security of supply. In the context of a higher shift towards timber construction, offsite manufacturing through *Space 4* helps Persimmon address skills shortages, gives it better control over quality and allows for waste reduction.

Heat pumps represent the future standard, but bottlenecks remain. In the context of the Future Homes Standard regulation, set by the UK government to ensure new homes built from 2025 will produce 75-80% less carbon emissions than homes delivered under current regulations, heat pumps will play a decisive role. However, a lack of skills can represent a hurdle for the company. To address the issue, Persimmon is investing in its own personnel through training initiatives.

Net zero targets remain dependent on home users. Persimmon's ambition is to deliver solely net-zero homes in use across all its portfolio by 2030. It plans on doing so without compromising on its lower average selling price vs. the national average. Overall, Persimmon has a number of ongoing pilot projects used to trial new technologies to assess the most effective build methods to achieve the required energy efficiency in homes. However, the company has little control over achieving its net-zero in use target by 2030.

Exhibit 5: Persimmon's roadmap towards net-zero

Our roadmap



Source: Persimmon presentation

Exhibit 6: The company is carrying out several development trials

Development trials

- > New emerging technologies
 - > Development trial site
 - > Germany Beck- University of Salford trial
 - > Whittlesey, Cambridge - Curv infra red heating
 - > Lawrence Weston Bristol - FHS net zero trial
 - > Malmesbury, Zero carbon home
 - > Energy Transition
 - > Alternative heating trials
 - > ASHP, Ground source, Low carbon Heat Networks



Source: Persimmon presentation

Saint-Gobain: Energy Renovation And Lightweight Construction Solutions Across All Construction End Markets Globally

We discussed, together with CFO Sreedhar Natarajan and Head of Investor Relations Vivien Dardel, Saint-Gobain's focus on a sustainable product portfolio, as well as its recent corporate restructuring and how it supports the company's cross-selling strategy.

Key insights, in our view: 1) Recent corporate restructuring supports solutions selling, 2) building sustainable ecosystems in each country is important in the context of product circularity, and 3) renovation market represents a significant opportunity.

Country-based organization supports higher cross-selling and lifts growth. Saint-Gobain recently changed corporate structure, shifting from being organized along product lines to country lines. The new structure is key to enabling cross selling and upselling, and transitions Saint-Gobain from a seller of products to a seller of systems and solutions. According to the CFO, following the restructuring Saint-Gobain has a higher wallet share in construction projects. At the same time, sustainability remains a core theme for Saint-Gobain's growth: we learnt about external thermal insulation systems (ETICS), a system sold by Saint-Gobain that bundles mortars, adhesives and insulation, allowing emission savings and cross-selling at the same time.

The importance of building ecosystems. Discussions also revolved around building ecosystems in the context of increasing product circularity. For example, the CFO told us about the importance of building a working ecosystem in order to recycle construction demolition waste. He explained most technologies are out there already, but they lack a supportive ecosystem to be leveraged upon, and helping to build these ecosystems is the country manager's job within Saint-Gobain. Additionally, he also pointed out Saint-Gobain's advancements in incorporating a higher degree of renewable energy/circularity in its products: examples given were in glass manufacturing and plasterboard.

Growth opportunity provided by the renovation market is significant. Currently, 53% of Saint-Gobain's sales come from renovation. Regulation in the renovation market provides a potential uplift for the business, as requirements for home owners become stringent, particularly in France, Saint-Gobain's largest market.

Sika: Sustainable Building Solutions Across A Variety Of End Markets, Products And Applications

We hosted Philippe Jost, Sika's Head of Construction, to discuss Sika's product offering and how sustainability and productivity drive cross selling opportunities.

Key insights, in our view: 1) Product performance, application and speed of construction supports a pricing premium and enhances products' sustainability footprint; 2) a broad product portfolio and presence in several markets enables Sika to successfully cross-sell its products in a construction project; and 3) customer relationship and sales force approach supports growth.

Sika believes its focus on innovation translates into superior products. Sika differentiates its products on performance and application. Patented technologies, such as ReCO2ver concrete's recycling technology, allow emissions reduction and improve circularity at the same time, without compromising on product performance. Sika is also exposed to modular construction and believes the construction industry is lagging on digitization, including technologies related to 3D printing. Examples of Sika's innovations that support modular building include SmartCore and Purform (adhesives) and 3D concrete printing (admixtures and mortars). Sika stated its products enable faster production time, reduce waste and lead to emissions reduction.

A broad product portfolio allows cross-selling opportunities for Sika. We learnt about the importance of digital channels/training to drive cross selling, as well as the importance of the Sika brand when doing so. Sika is successful after many years of enhancing its product portfolio, harmonising the brand and developing its channel access. According to the company, in order to have a more profitable relationship with the customer, a company needs to bring more products to the table. In some specific projects, this is made easier by speaking to the same customer for different parts of the building. Mr. Jost also spoke about further growth opportunities in the renovation market, less exposed to macroeconomic downturns.

Admixture growth supported by lower clinker ratios: We learnt how lower clinker cements require more admixtures in concrete. Cement decarbonisation can therefore lift organic growth of admixtures vs. history.

Customer at the core. Deepening customer relationships is not only done through the sales force. Direct customer contact is achieved through other teams as well, such as the R&D team. Overall, an holistic approach to customers, with discussions focussing on product innovation, performance and not only limited to price support top-line growth and enable cross-selling.

Skanska: Construction And Property Developer Geared Into Green Buildings

We hosted Lena Hök, Skanska's Executive Vice President, Sustainability. We discussed Skanska's decarbonisation targets and sustainability's increasing importance in contractors' tenders.

Key insights, in our view: 1) Skanska has a verified science-based decarbonisation target, 2) Sustainability in project tenders is becoming increasingly important, 3) Property investors also demand more sustainable buildings.

Decarbonisation targets: Skanska is the only construction company of its size to have a verified science-based decarbonisation target – aiming to reach net zero by 2045. Knowledge, capacity and partnership with industry stakeholders are seen as key to deliver sustainable building projects: a recent pilot in Warsaw uses green concrete, which reduces the whole project's carbon emission by 25%.

Sustainability now is more embedded into project tenders. In construction contracting, Skanska sees sustainability increasingly being included in project tenders, although there are differences between regions and types of customers. For example, Northern Europe is more advanced than Southern Europe, and Europe in general is ahead of the curve vs. the US, with the exception of the coastal areas. Public customers with large infrastructure projects also tend to have more sophisticated sustainability requirements. Today, these requirements focus on energy efficiency, carbon reduction and climate resilience. The fact that Skanska is also a project developer, with construction fulfilled by its own contracting arm, provides the company more exposure to building with a higher sustainability standard.

Property investors also demand more sustainable buildings. In project development, Skanska sees an increasing demand of sustainable buildings from property investors, and the requirements often extend beyond carbon reduction to include wellbeing/comfort too. Skanska sees the emergence of green mortgages accelerates customer buy-in of sustainable buildings. Its BoKlok project showcases sustainable homes can also be low-cost.

Steico: Wood Fiber Insulation And Timber Construction

We spoke to Dr. David Meyer, CFO, and Andreas Schulze, Head of Investor Relations, about Steico's different wood products, cross selling opportunities and future expansion plans in the context of a growing market.

Key insights, in our view: 1) Steico notes its two main business lines, wood fibre insulation and timber construction elements, provide important cross-selling opportunities; 2) wood fibre insulation benefits vs. traditional foam/mineral wool insulation from an environmental standpoint, but this is not the only product advantage; 3) supply chain management is seen as key for maintaining product sustainability footprint; and 4) increased demand for sustainable construction products has led Steico to pursue significant expansion initiatives.

Wood fibre insulation and timber construction elements provide Steico with cross-selling opportunities. Steico is a German manufacturer of wood engineered products, primarily insulation and construction products. This provides the company with the opportunity to provide an integrated construction and insulation system to its customers. Steico's wood fibre insulation and LVL/I joists enable carpenters to benefit from a "one stop shop" solution. According to the company, solutions only account for c.10-15% of total sales at the moment; the group sees high future potential to increase this number.

Sustainability is not the only attractive aspect for Steico's insulation. Speaking to management, we learnt Steico's insulation lambda value, which determines the product's effectiveness, is quite comparable to more traditional mineral wool/foam insulation products. The main advantage provided by wood fibre insulation is its sustainability footprint, given timber's ability to store CO₂. However, we also learnt wood fibre insulation materials play an important role in summer heat protection due to the product's heat retention performance. Currently, 90-95% of Steico's products are geared in residential buildings, with new build vs. renovation being approximately 60/40. Products can be used indifferently in both end markets, although Steico expects to increase its share in new build.

Supply chain management supports Steico's sustainable profile. Steico only uses certified wood products, ensuring wood is coming from sustainably managed forests. Additionally, the majority of the wood used comes from forests within a radius of max.150km around the respective production site; the nature of the product, wood, ensures no issues regarding material availability in the medium term.

CAPEX plans are underway as the business is expanding. Given a high increase in demand in H2 2020, the company decided to invest exclusively on wood fibre insulation. It is building a third production site in Poland, providing a EUR 100-110m top line increase. Overall, the company believes wood based insulation has the chance of gaining further market share (currently at 5-6%) vs. traditional insulation, in the context of an overall growing insulation market.

Stora Enso: Wood-Based Building Products And Solutions

We hosted Lars Völkel, EVP Wood Products Division at Stora Enso. We discussed trends in timber sustainable construction, Stora Enso's business model and future expansion plans.

Key insights, in our view: 1) Traditional wood product parts and building solutions make up the Wood Products Division. Building Solutions is exposed to higher growth trends. 2) A more integrated sales approach is seen as key to achieve growth and pricing premium. 3) Timber construction allows emission savings on time, waste and transport. 4) Regulation is an important tailwind for the business. 5) Logistical costs are the main constraint at the moment for Stora Enso.

Building solutions is the key growth engine within the larger Wood Products division.

Among the Wood Products division, Traditional Wood, which primarily includes wood products used in furniture, accounts for 70% of sales. Building Solutions, which consists of engineered timber products used in construction, such as cross-laminated timber, accounts for 30% of sales. However, Mr. Völkel expects the latter to have significantly higher growth potential in the medium term.

Holistic sales approach supports growth. Stora Enso has a holistic sales force approach. When selling to its customers, it also provides service support by sharing best in class practices. This allows for more efficient construction methods, allowing for example to increase internal floor space. According to Mr. Völkel, this holistic approach allows Stora Enso to successfully price its products at a premium.

Several benefits of building with timber were noted. Timber construction is more sustainable vs. traditional concrete for several reasons. 1) Embedded carbon in timber is significantly lower. 2) Given timber is a lightweight material, it can allow emission savings on less transport: when building with timber, Mr. Völkel estimates truck deliveries at the construction site to be 80% less vs. traditional methods. 3) Lastly, building with timber is faster: construction time is 70% lower vs. concrete; most of the elements are pre fabricated, supporting a reduction in construction waste.

Regulation is supportive, especially at the EU level. Mr. Völkel views regulation as a significant tailwind for Stora Enso. In France, for example, since January 2022 all new buildings need to be built with at least 50% renewable materials. He noted that the biggest challenge in this context is the speed at which EU regulations are implemented into local building regulations across several countries.

Logistic costs are currently the main issue for Stora. Stora is currently struggling for sea freight capacity; 40% of its turnover is generated outside of Europe. However, higher logistic and energy costs are more than offset through pricing increases.

TopHat: Modular Homebuilder Bringing Construction Into The Factory

We hosted Andrew Shepherd, MD of TopHat. Top Hat is a private company and Modular home specialist, bringing home construction into the factory. BoKlok, the offsite housing developer jointly owned by Skanska and Ikea, has appointed TopHat to help deliver its project in the UK.

Key insights, in our view: 1) TopHat sees timber and proprietary 3D printed brick as the key solutions supporting its low embodied carbon homes, which already deliver to the Future Homes standard. 2) Air source heat pumps are installed as standard, with TopHat preferring heat pumps produced by the gas boiler manufacturers, as the user interface is typically understood by the home owner already. 3) TopHat underscored growth potential with 1000 homes today, targeting 5000 over 3-4 years. 4) Skills are very different vs. traditional homebuilders, which TopHat expects might help scalability.

Strong growth potential supported by standardised offering: Currently, TopHat can produce 1000 annually and is in the process of building a second factory to deliver 5000 homes in total over the next 3-4 years. This growth profile is supported by factory-based, modular construction methods with a very high level of standardization. The catalogue of homes has 6-10 variations and 22 house types.

Cost competitive: Mr. Shepherd highlighted that he believes TopHat's offering is competitive against the traditional "volume" homebuilders, but that this relies on a high degree of repeatability - in other words TopHat's offering is probably not best suited for bespoke / smaller housing projects. Turnkey solution - houses sold with kitchen / bathrooms installed at the factory - i.e. units shipped on a fully completed basis.

The technology: Low embodied carbon homes are supported by 1) timber construction, 2) proprietary 3D printed brick technology, which looks like clay brick, and 3) triple glazed windows as standard. Low operating carbon homes are supported by installing air sourced heat pumps and PVs on the roof as standard, helping customers to optimise energy consumption using devices / sensors. All homes are A1 fire rated. Design is intentional so that future maintenance of homes is supported by traditional tradesman.

Skills requirements are very different to traditional homebuilders: Of 250 employees, only 20 come from homebuilding backgrounds. Many employees come from other industrial settings (automotive an example). We think this could be a structural advantage for TopHat, considering skills bottlenecks in the construction industry.

Partnerships being investigated: TopHat continues to work with existing Industry players / volume homebuilders to deliver its offering.

Expert Speaker: Dr. Martin Sabel, Secretary General of the German Heat Pump Association (BWP)

Following our [call](#) in February, we hosted Dr. Sabel for a second time, discussing the heat pump market landscape, industry targets, regulative support and hurdles to mass adoption.

Key insights, in our view: 1) Germany will play a pivotal role in the context of REPowerEU plans; 2) economics for heat pumps are still unfavorable, despite having recently improved; and 3) given heat pumps are not a particularly sophisticated product, traditional oil and gas players are investing significantly in the heat pump market.

Germany's heat pump penetration targets are key towards achieving European goals.

Providing some useful context: In 2021, 154,000 heat pumps were sold in Germany, which was a 28% YoY increase after the record year of a 40% increase in 2020. 82% of units sold were Air-to-Water, +33% YoY; the remaining 18% units sold were geothermal, +10% YoY. The European Commission currently targets 10m new heat pumps over the next five years. Germany has the goal to install c.3m heat pumps by 2025, therefore playing a pivotal role towards the EU's objective. Currently, Germany has a subsidy scheme that covers 35% of the heat pump's upfront cost, or 45% if it is to replace oil heating.

Heat pump economics vs. gas boilers are still unfavorable. Heat pumps run on electricity, so confronting the two products is about looking at the ratio between electricity prices and gas prices. It has typically been a ratio of 3.5 and this is not ideal for heat pumps. In recent months we have seen a decrease in electricity prices by ~15% and we had an increase in gas prices of about 95%; as a result, the ratio looks more favorable (2.7 roughly). In terms of the upfront cost, including heat pump and installation in a renovation scenario without a grant, it is reasonable to assume €20,000 for an Air-to-Water, €30,000 for a 10kW geothermal, for a single family home (requiring a 10kW heat pump capacity).

German traditional oil and gas players are investing in heat pump technology. Dr. Sabel told us the German Heat Pump Association includes around 70 manufacturers; the largest market share belongs to the country's traditional manufacturers of heating systems. Viessmann Group, for example, committed to invest c.EUR1bn to expand its heat pump portfolio. Additionally, on a product level the difference between AC and heat pumps is not significantly different, leaving further room for new entrants. However, the lack of skilled installers remains a key bottleneck.

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	COUNT	% OF TOTAL	COUNT	% OF TOTAL IBC	% OF RATING CATEGORY	COUNT	% OF TOTAL OTHER MISC
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Underweight/Sell	564	16%	95	11%	17%	219	14%
TOTAL	3,552		842			1550	

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INDUSTRY COVERAGE: Building & Construction

COMPANY (TICKER)	RATING (AS OF)	PRICE* (05/20/2022)
Bart Gysens, CFA		
Instone Real Estate Group AG (INS2.DE)	O (03/27/2018)	€11.70
Cedar Ekblom, CFA		
Breedon Group PLC (BREE.L)	O (02/12/2021)	68p
Buzzi Unicem SpA (BZU.MI)	U (01/08/2020)	€17.67
CRH (CRH.I)	E (06/14/2021)	€36.97
Geberit AG (GEBN.S)	U (06/19/2020)	SFr 513.40
HeidelbergCement AG (HEIG.DE)	E (03/15/2022)	€51.86
Holcim Ltd. (HOLN.S)	O (01/08/2020)	SFr 46.57
Kingspan Group PLC (KSP.I)	E (05/18/2020)	€72.64
Rockwool International A/S (ROCKb.CO)	U (11/30/2020)	DKr 1,981.50
Saint-Gobain (SGOB.PA)	O (03/04/2022)	€51.96
Sika AG (SIKAS)	O (10/07/2020)	SFr 256.70
Christopher Fremantle, CFA		
Barratt Developments PLC (BDEV.L)	O (03/20/2017)	489p
Berkeley Group Holdings PLC (BKGH.L)	U (03/20/2017)	4,122p
Metrovacesa SA (MMC.MC)	E (11/19/2019)	€6.90
Persimmon PLC (PSN.L)	E (03/20/2017)	2,120p
Taylor Wimpey PLC (TW.L)	O (03/20/2017)	127p
Nicolas J Mora		
ACS Actividades de Construcción y Servic (ACS.MC)	E (10/08/2020)	€25.43
Ferrovial SA (FER.MC)	O (10/06/2014)	€23.31
Pam Liu		
Balfour Beatty plc (BALF.L)	U (03/20/2022)	253p
Belimo Holding AG (BEAN.S)	O (03/14/2022)	SFr 375.00
Genuit Group plc (GENG.L)	E (05/04/2022)	424p
Kingfisher (KGF.L)	E (06/03/2021)	247p
Nibe Industrier AB (NIBEb.ST)	E (02/22/2022)	SKr 86.02
Skanska AB (SKAb.ST)	E (08/10/2021)	SKr 166.40
Uponor Oyj (UPONOR.HE)	E (05/04/2022)	€15.46
Wienerberger AG (WBSV.V)	E (10/21/2020)	€23.96

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* Historical prices are not split adjusted.

