

## CONSTRUCTION SUPPLY CHAIN: MATERIALS SHORTAGES AND COSTS

1. This note summarises the work done by the Materials Supply Working Group on construction industry supply chains. The group was set up in June 2021 in response to reports of supply chain constraints affecting the construction sector, to examine where the immediate shortages were most acute and to identify opportunities to remove barriers and build capacity within Scotland. I chaired weekly meetings of this group for 12 weeks, the last one on Tuesday 28 September 2021. Membership of this group can be seen at Annex A.

### Background

2. Construction is a significant sector in its own right with 130,000 employees (2020), contributing £7.85 billion GVA to the economy (2019). Although the sector's main market is within the UK, Scotland's construction exports are still worth £125 million (2019). It also provides fundamental support to all sectors of the economy from critical infrastructure through housing to public buildings.
3. There have been several factors that affected the construction supply chain. Lockdown in 2020 saw large parts of the economy shut down, and as restrictions eased there was a short-term peak in demand, arising from a large increase in DIY/domestic works, including house extensions and garden works. Stocks of materials were run down due to the lockdown, and continuing constraints on production through physical distancing requirements. In addition, EU Exit exacerbated logistical issues.
4. There are reports that a greater degree of collaboration is developing between SMEs in the construction sector who are working together, and potentially sharing resources in a bid to secure the best possible prices on the resources that are available. Some businesses are seeking to diversify beyond the core markets they currently serve and develop innovative products/services to assist their recovery from the pandemic.<sup>1</sup>
5. Historically, the UK construction sector has been a net importer, and this trend continues (see Annex D). Roughly 60% of imported materials used in UK construction projects are from the EU. Items such as cement, steel, aggregates and plastics have also been difficult to obtain.
6. Scottish Enterprise's report on feedback from its customers in September 2021 showed that shortages of many goods were prompting businesses to review and expand their supply chains at both home and overseas. Construction and engineering sectors continued to report shortages of materials e.g. concrete, plastics, metal, wood and there was a growing second hand market. The rise in wood prices continued to make pallets harder to source for hauliers potentially resulting in higher prices passed on to businesses or customers.
7. The position does now appear to be improving. BICS data from Wave 46 (December 2021) shows that for construction sector businesses with 10+ employees and a presence in Scotland, 88.1% were able to get the goods, services and materials they needed from within the UK in the previous month, compared with a low of 66.3% in July 2021. Many of these businesses (just over 23%) had changed suppliers or found alternative solutions.

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<sup>1</sup> <https://www.scottishconstructionnow.com/article/collaboration-diversification-and-innovation-can-help-construction-smes-combat-rising-prices>

8. Across the UK, the latest Purchasing Managers' Index (published 7 January 2022<sup>2</sup>) noted that construction activity levels continue to be high and also some easing in cost inflation. Although higher fuel, energy and raw material prices continued to push up average costs across the construction sector in December, the report noted that the overall rate of inflation eased for the fourth month running to its lowest since March and that supplier delays are now the least widespread since November 2020.
9. The latest Product Availability Statement from the Construction Leadership Council (18 January<sup>3</sup>), shows that UK sales remain strong and a gradual improvement in supply has been helped by the seasonal reduction in demand particularly in domestic repair, maintenance and improvement over the Christmas period. There are relatively good stocks and availability of most products, including timber where prices have also fallen from their peak.

### **Actions taken**

10. The Materials Working Group undertook a range of work to identify opportunities to mitigate the effects of supply chain constraints.
11. I encouraged the construction and manufacturing sectors, including in an open letter on 26 July 2021, to consider every opportunity for Scotland to manufacture as many of the construction materials we require as possible and for businesses to come forward and work with us to ramp up manufacturing supply chains.
12. I met a range of businesses and organisations across the main areas identified as priorities for the sector (see details in Annex B). Five main commodities were identified by the industry as having particular issues, whether in terms of availability, price or both. These were: timber; aggregates, cement and concrete; chemicals; pipes and drainage; and steel. In addition, logistics (availability of HGV drivers and haulage in particular) has been a major issue for this sector as it is across the economy as a whole.
13. Shortages caused some significant price rises across these key commodities which will have implications for the delivery of projects, and the margins businesses are able to achieve within fixed price contracts. Timber and steel products have seen particularly large price increases. On 28 July 2021 we issued a Construction Procurement Notice, Resources for construction projects: CPN 3/2021<sup>4</sup> which acknowledges and provides guidance relating to the current commercial and logistical pressures in the construction sector. The CPN also advises employers in the public sector on actions they can consider for future contracts. This has been welcomed by the sector.
14. Enterprise agencies were key members of the Working Group. My letter of 6 August 2021 identified how they could support the efforts of the Group. Some examples of support provided by HIE and Scottish Enterprise, and Zero Waste Scotland, can be seen at Annex C.
15. Scottish Enterprise have followed up with businesses who stepped forward as a result of my letter, and along with the Scottish Manufacturing Advisory Service (SMAS) colleagues and specialists continue to work with them to link them with potential customers, grow their businesses and review their

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<sup>2</sup> <https://www.markiteconomics.com/Public/Home/PressRelease/75dc4c9ea8e84e4484f528cc052aa0d8>

<sup>3</sup> <https://www.constructionleadershipcouncil.co.uk/news/construction-product-availability-statement-10/>

<sup>4</sup> <https://www.gov.scot/publications/resources-for-construction-projects-cpn-3-2021/>

operations. HIE is working on several projects in the construction materials supply chain that aim to increase capacity, strengthen the supply chain, and in some cases deliver new products to the construction sector.

16. Through the Construction Scotland Innovation Centre and UHI's Make it Smarter Hub, funded by our Advancing Manufacturing Challenge Fund (AMCF) the sector is being supported to adopt new technologies and methods that will increase productivity and quality.
17. Examples of other work supported by the public sector include the support offered by Zero Waste Scotland to businesses producing new sustainable construction materials, also helping businesses reduce waste in Scotland and reduce overall carbon emissions.
18. A practical example of where we have helped to ease supply chain issues with low carbon alternatives is the new facility being launched by Innovative Ash Solutions, a 50-50 joint venture between Scottish waste and resource management company Levenseat and environmental and renewable energy consultant Organic Innovative Solutions. This plant will enable the manufacture of lower-carbon cement products following a £500,000 award from Scottish Government-backed Zero Waste Scotland's Circular Economy Investment Fund.
19. The Construction Scotland Innovation Centre (CSIC) has a number of innovative materials in development which may also help, and in partnership with NMIS held a webinar on 31 August for manufacturing companies, where I was delighted to give the keynote presentation. This was a very successful event with over 100 attendees.
20. These emerging opportunities across a range of new materials and new technologies under development across different commodities are vital to our achieving our net zero ambition as the built environment is estimated to account for about 40% of all carbon emissions. CSIC plays a key role in supporting such work, including through Accelerate to Zero, their net zero programme for the built environment.
21. Having written to them more than once, I was also delighted to see that the UK Government yielded to our calls for the extension of CE certification, which was widely seen as another potential threat to security of supply of materials. This was another positive example of the power of collaboration when government and industry work together.
22. I was also pleased to see that the UK Government has now taken action in a number of areas to improve the availability of HGV drivers, including introducing a number of initiatives to provide support and training for new HGV drivers, expanding HGV driver testing capacity and improving licensing processes.
23. For its part, Transport Scotland is developing a strategy for improving rest and welfare facilities for hauliers as part of its Strategic Transport Projects Review. This will identify locations, options for intervention, consultation and develop business cases for investment.
24. Our skills officials are also working with stakeholders to develop a Working with Business Action Plan. Bringing a cross-Government approach, the plan focuses on employability, skills and fair work principles to identify actions to mitigate the impact of labour shortages, including HGV drivers.
25. Beyond the short-term review carried out by the Materials Supply Working Group, work is well underway to build on the success of the new supply

chains created in Scotland through our Supply Chains Development Programme (SCDP) with the ambition of improving the capacity, capability and development of Scottish supply chains.

26. The programme spans sectors where we see genuine sustainable economic potential to grow Scottish supply chains and we are exploring how we can better leverage Scotland's annual £13 billion public sector procurement spend, by working with the Enterprise Agencies and the National Manufacturing Institute Scotland, to build resilient strategic supply chains.
27. The SCDP is closely linked to the Supply Chain Resilience and Capability activities within the Construction Leadership Forum and one of the workstreams is focused on increasing the use of Scottish timber in construction as part of our work to reduce the carbon impact of our built environment.
28. In addition, support of our ambition to improve local supply chains is an integral part of our Construction Recovery Plan, published in October 2020, which is also creating opportunities to share good practice and providing practical help for businesses. I continue working with Scottish Futures Trust CEO Peter Reekie to ensure the Construction Recovery Plan, which contains medium- to long-term supply chain actions, remains on track; and understand the role the hub companies can play in our work.
29. In terms of the Supply Chain Resilience and Capability activities within the Recovery Plan, the Construction Leadership Forum website has now been updated with the status of each action under this area<sup>5</sup>. One of the group's actions - an online Construction Directory - is due to be launched in Spring this year. This will help businesses make connections to Scottish suppliers.
30. I continue to chair the Construction Leadership Forum, which meets monthly, and maintains oversight of the important work of the CLF's supply chain subgroup. This group will have a key role going forwards in continuing to drive progress.
31. It is accepted that the industry in Scotland needs to look to a longer-term transformation to help build a stronger and greener economic future. To indicate a pathway towards that goal, it is releasing a series of best practice case studies<sup>6</sup> which show how industry can contribute more to local economies and play its part in supporting local suppliers.
32. The solutions highlighted include projects such as the community-led East Whins Eco-village near Forres, the NHS Louisa Jordan Hospital in Glasgow and the University of Glasgow Campus. Innovative local supply solutions include companies making bricks and concrete from construction industry waste products and a company which manufactures insulation panels from locally grown industrial hemp.
33. The general expectation in the marketplace is that the situation will now begin to settle at least in terms of supply, although some volatility in pricing may continue.

**IVAN McKEE**

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<sup>5</sup> <https://www.constructionforum.scot/recovery-plan/>

<sup>6</sup> <https://www.cs-ic.org/innovationcentre/innovation-support/solutions-in-practice/>

**CONSTRUCTION SUPPLY CHAIN – MEMBERSHIP OF MATERIALS  
SHORTAGES WORKING GROUP**

- Chair - Ivan McKee MSP, Minister for Business, Trade, Tourism and Enterprise
- Brett Amphlett – Builders Merchant Federation
- Stuart Macleod – Faithful & Gould & Construction Scotland
- Martin Dick – Robertson Construction
- Andrew Richards – Safedem Ltd. & CLF supply chain sub group co-chair
- Fiona Hodgson – SNIPEF & CICV member
- Julie Welsh, Scotland Excel
- David Macdonald – Scottish Futures Trust
- Margaret Watson – SE
- Steven Hutcheon - HIE
- John Mackenzie – HIE
- Dermot Rhatigan, SG Manufacturing and Industries, CLF supply chain sub group co-chair
- Morag Watt – SG Supply Chain Development
- Graham Porteous – SG Procurement
- Jamie Kennedy, Transport Scotland

## CONSTRUCTION SUPPLY CHAIN – MEETINGS WITH BUSINESSES

Five main commodities were identified by the industry as having particular issues, whether in terms of availability, price or both. These are: timber; aggregates, cement and concrete; chemicals; pipes and drainage; and steel. In addition, logistics is a major issue for this sector as it is across the economy as a whole. As well as the meetings held with Mr McKee, officials from SG, SE, HIE and other public bodies have had conversations with businesses across these areas.

### Summary of Ministerial engagement by sector

Company	Sector	Date of meeting
BSW	Timber	9 July 2021
James Jones	Timber	12 July 2021
West Fraser (previously Norbord)	Timber - engineered wood products	2 November 2021
Forestry & Land Scotland	Timber supplies	5 August 2021
Tarmac	Cement	Regular ongoing contact
Cemex	Cement & concrete	31 August 2021
Marshalls	Brick	12 July 2021
Travis Perkins	Builders merchants	29 July 2021
The British Coatings Confederation	Chemicals (trade association)	6 September
Wavin	Pipes	2 September 2021
BSB Structural	Steel	9 August 2021
Transport Scotland	Transport /logistics	2 August 2021
Road Haulage Association	Transport /logistics (trade association)	9 August 2021

## EXAMPLES OF PUBLIC SECTOR SUPPORT TO CONSTRUCTION SUPPLY CHAIN COMPANIES

### Enterprise agencies

Our enterprise agencies have provided a range of support for companies in the supply chain for the construction sector ranging from training and development, digital, support for new facilities and loan support.

This includes support for a new manufacturing facility for Morlich Homes, based in Buckie; supporting a new sawmill line and graduate IT at Logie Timber in Forres; and Scottish Co-investment Fund support for Quick Block Ltd in Glasgow (manufacturers of flat-pack recycled plastic and modular building system).

### Zero Waste Scotland

In addition, Zero Waste Scotland has supported a number of construction businesses, giving direct one-to-one support and guidance from six key programmes:

- the Circular Construction Support Service;
- the Energy Efficient Scotland Programme;
- the Circular Economy Business Support Programme;
- the Circular Economy Investment Fund;
- the Covid Site Adaptation Fund; and
- ZWS's Cities Programme.

Companies supported include

- Brewster Brothers (cement recovery from concrete, recycled aggregates, soils and sand);
- MacRebur Ltd (manufacturer of road surfaces);
- Ligna Alba (production of Scottish wood dowel laminated timber panels);
- Industrial Nature Ltd (sustainable construction materials manufacturer of innovative bio-composite thermal blocks and other insulation products);
- Kenoteq (manufacturing their K-Briq, a sustainable building product that replaces traditional kiln fired bricks in construction); and
- KR Cladding (repurposing of PIR board from composite cladding panels removed from buildings being repaired, refurbished or demolished for reuse as a rigid insulation board)

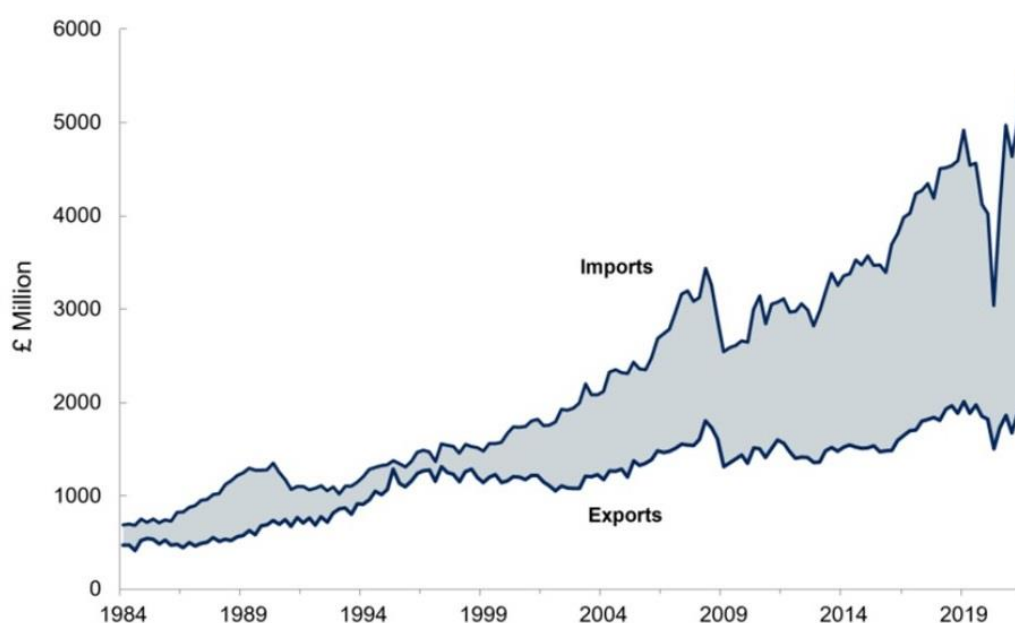
## UK MONTHLY STATISTICS OF BUILDING MATERIALS AND COMPONENTS

BEIS publishes monthly statistics of building materials and components, with some data available by nation for a very limited number of commodities.<sup>7</sup> The latest report, published on 12 January 2022 shows the following for the UK construction market:

- Imports of construction materials increased by £532 million in Q3 2021 compared to the previous quarter, an increase of 10.7%.
- Exports of construction materials decreased by £35 million in Q3 2021 compared to the previous quarter, a decrease of 1.9%.
- As a result, between Q2 2021 and Q3 2021, the quarterly trade deficit widened by £567 million to £3,687 million, an increase of 18.2%.
- Over the whole of 2020, imports of construction materials decreased by 11.0% compared to 2019, from £18,144 million to £16,144 million.
- In the same period exports decreased by 10.4%, from £7,723 million to £6,916 million.
- Over the period from Quarter 1 1984 to Quarter 3 2021, construction materials imports have increased, on average (per quarter), by 4.7%. Over the same period, exports increased by an average of 1.9% per quarter.
- The trade deficit was historically at its smallest throughout the 1990s, with a mean of £309 million over this period. This trade deficit was 24% of the value of imports. As of Quarter 3 2021, the trade deficit is £3,687 million, 67% of the value of imports.

### Imports and Exports of Construction Materials

**Chart 8: Quarterly Exports and Imports of Construction Materials, UK**  
Value in pounds sterling



Source: *Monthly Statistics of Building Materials and Components, Table 14*

<sup>7</sup> <https://www.gov.uk/government/collections/building-materials-and-components-monthly-statistics-2012>  
Includes data at country level for sand and gravel; bricks (no figures available for Scotland - there is only one brick manufacturer here); and concrete building blocks (Scotland and Wales combined);