

Construct²ZERO

The Construction Industry's Zero carbon change programme

Business Champions – Launch Interviews

Hanson UK

Feature interview questions to:



1. Why is making progress on Net Zero important to your business?
2. Which of the 9 priorities are more relevant to your business and clients and why?
3. What are doing to make progress against the relevant priorities (of the 9) in the short and long-term? (Could include targets or milestones)
4. How have you helped your supply chain understand what is required against the 9 priorities?
5. As a business leader what do you think the biggest challenge is and how are you working to overcome it?
6. In your view what is the one innovation or change that is going to have the biggest impact on carbon or progress in our industry?



Business Leader

Question N1:

Why is making progress on Net Zero important to your business?



Our long term success depends on sustainable business practices

Sustainability is a term that has come to mean much more than environmental protection. It is about working efficiently, making a profit and investing in value-creating projects to grow business. And, as importantly, it's about people, including health, safety and wellbeing, succession planning, diversity and adding value to our customers and our communities

I believe however that the original definition of sustainability, “to meet our own needs without compromising the ability of future generations to meet their own needs” is more important now than ever before

It was recently announced that CO₂ in our atmosphere is at the highest level ever recorded. This really concerns me as the effect of this on global temperatures are now recognised as undisputable fact; and we must act now to do something about this for our society as a whole

Making progress on net zero is of great importance to us. It makes good business sense for our long term success, and it is morally right for our people and our planet



Question N1:

Why is making progress on Net Zero important to your business?



Question N2:

Which of the 9 priorities are more relevant to your business and clients and why?



Hanson UK is part of the global business HeidelbergCement that operates in 60 countries around the world with 58,000 employees. Globally, HeidelbergCement is No.1 for aggregates, No.2 for cement and No.3 for concrete supplies

We operate across four division; aggregates (crushed rock, sand and gravel); concrete; cement; and asphalt and contracting. We have over 300 manufacturing sites across the UK

So, as a manufacturer of heavy building materials, the most important Construct Zero priority for us is to innovate and produce the lowest carbon materials possible for use in construction

We understand that our customers are seeking the lowest carbon solutions for their projects; and by collaborating at an early stage of development we are able to work together on solutions to deliver lower carbon in construction activities



Question N2:

Which of the 9 priorities are more relevant to your business and clients and why?



300+
manufacturing sites
across the UK



6,000+
deliveries
every day by
road, rail and water



1,200+
Hanson-livered
vehicles



10 packed
products plants



178 ready-mixed
concrete plants



6 marine
aggregate dredgers



47 sand, gravel
and rock quarries



3 cement plants



37
asphalt plants



3 grinding
plants making
Regen GGBS



19 rail depots and
wharves supplied by
road, rail and sea



1 joint venture
rail company,
Mendip Rail



Question N3:

What are doing to make progress against the relevant priorities (of the 9) in the short and long-term? (Could include targets or milestones)



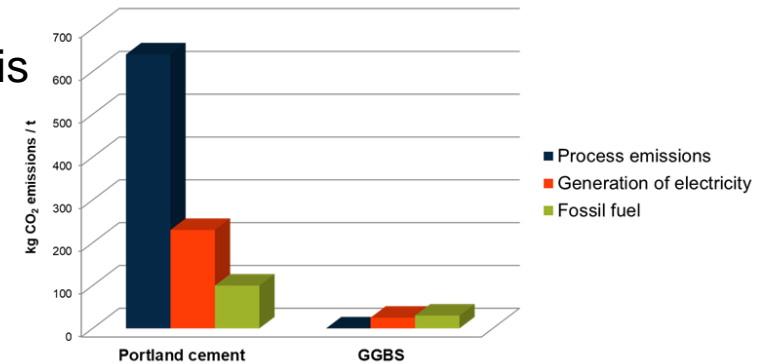
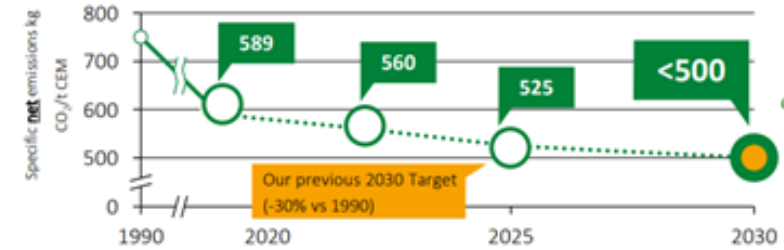
HeidelbergCement was the first global cement company to sign up to the SBTi for a 2°C reduction in accordance with the Paris agreement and its strategy is currently being assessed against a 1.5°C reduction. We have committed to carbon neutral concrete by 2050 with key accelerated milestones to help us achieve this

Hanson UK has developed a CO₂ roadmap to reduce carbon across all areas of the business for scope 1, 2 and 3 emissions to complement this global effort

Around 90% of the Hanson UK CO₂ emissions are from our 3 cement works; it is this area therefore that we are prioritising reductions by:

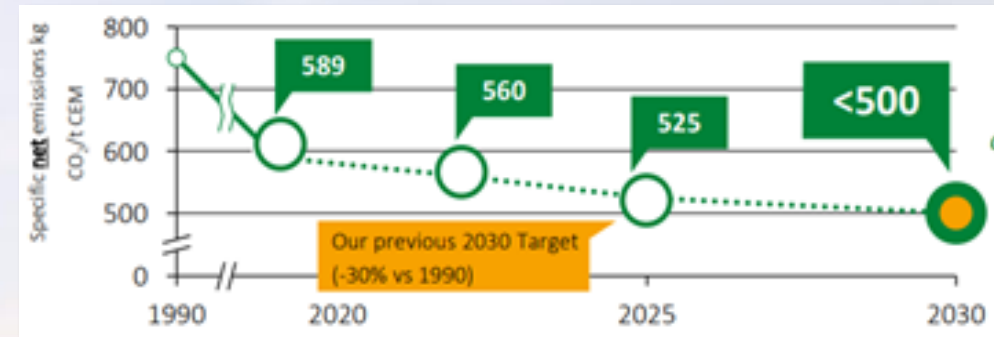
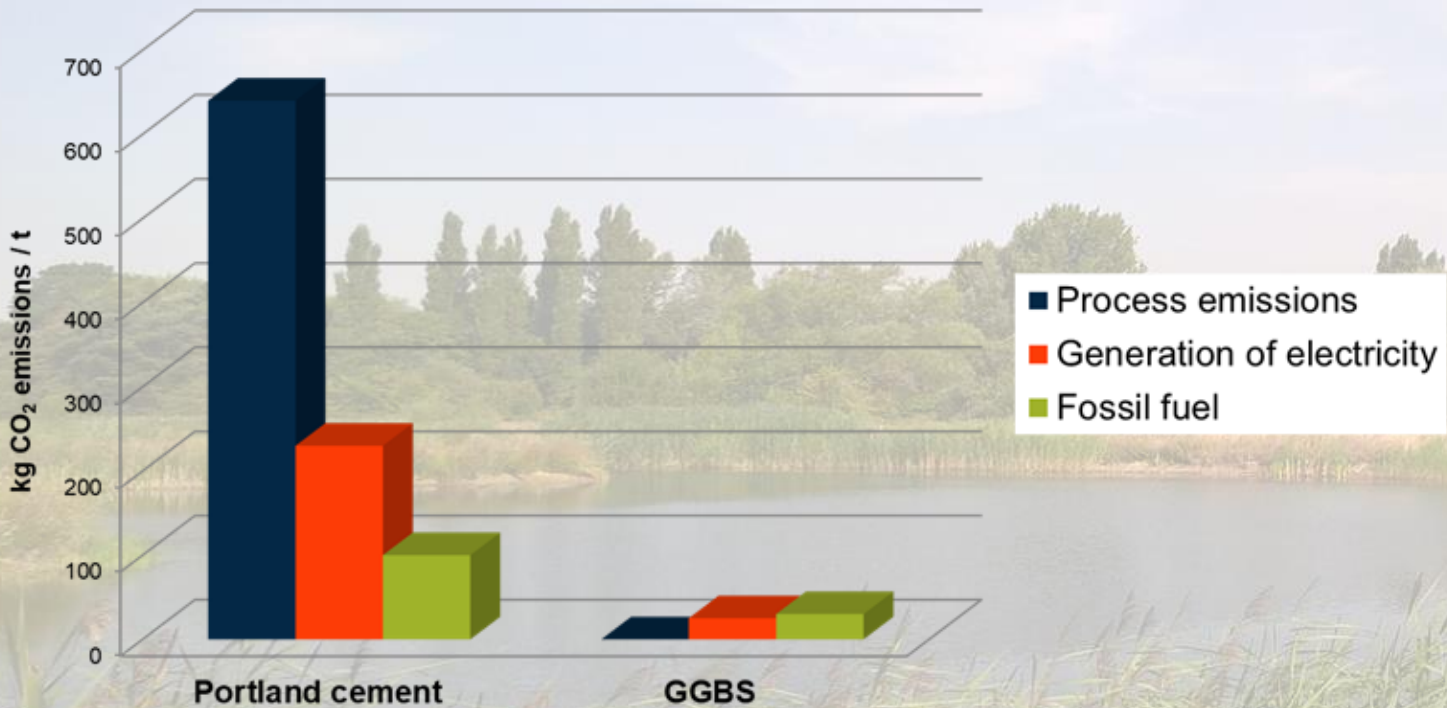
- Increasing the use of alternative fuels and alternative raw materials
- Using secondary cementitious materials such as our Regen product with a significantly lower CO₂ footprint
- Making major investments in plant efficiency and CO₂ reduction at plant level
- Increasing the share of sustainable low carbon concrete products

Whilst 30% of the emissions from cement manufacture are derived from the fuels we use; 70% are derived from the chemical reactions within the process and so we need to innovate in the area of carbon capture and storage (CCS) to resolve this issue and have extensive activities in this area already



Question N3:

What are you doing to make progress against the relevant priorities (of the 9) in the short and long-term? (Could include targets or milestones)



Question N4:

How have you helped your supply chain understand what is required against the 9 priorities?

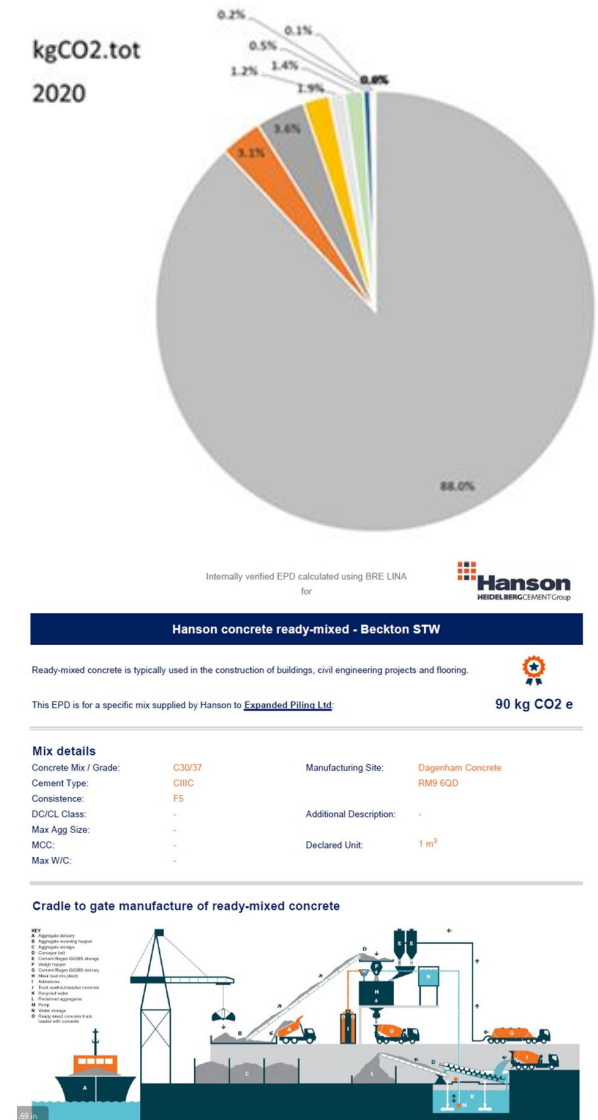


We recognise that we are an integral part of the value chain and our materials are part of the life-cycle of any construction project

As a vertically integrated business some 90% of all the materials we use in the products we manufacture are locally sourced from our own operations. 88% of our CO₂ emissions are from cement manufacture, 9% from all our other operational sites and just 3% from the 6000+ deliveries we make each day

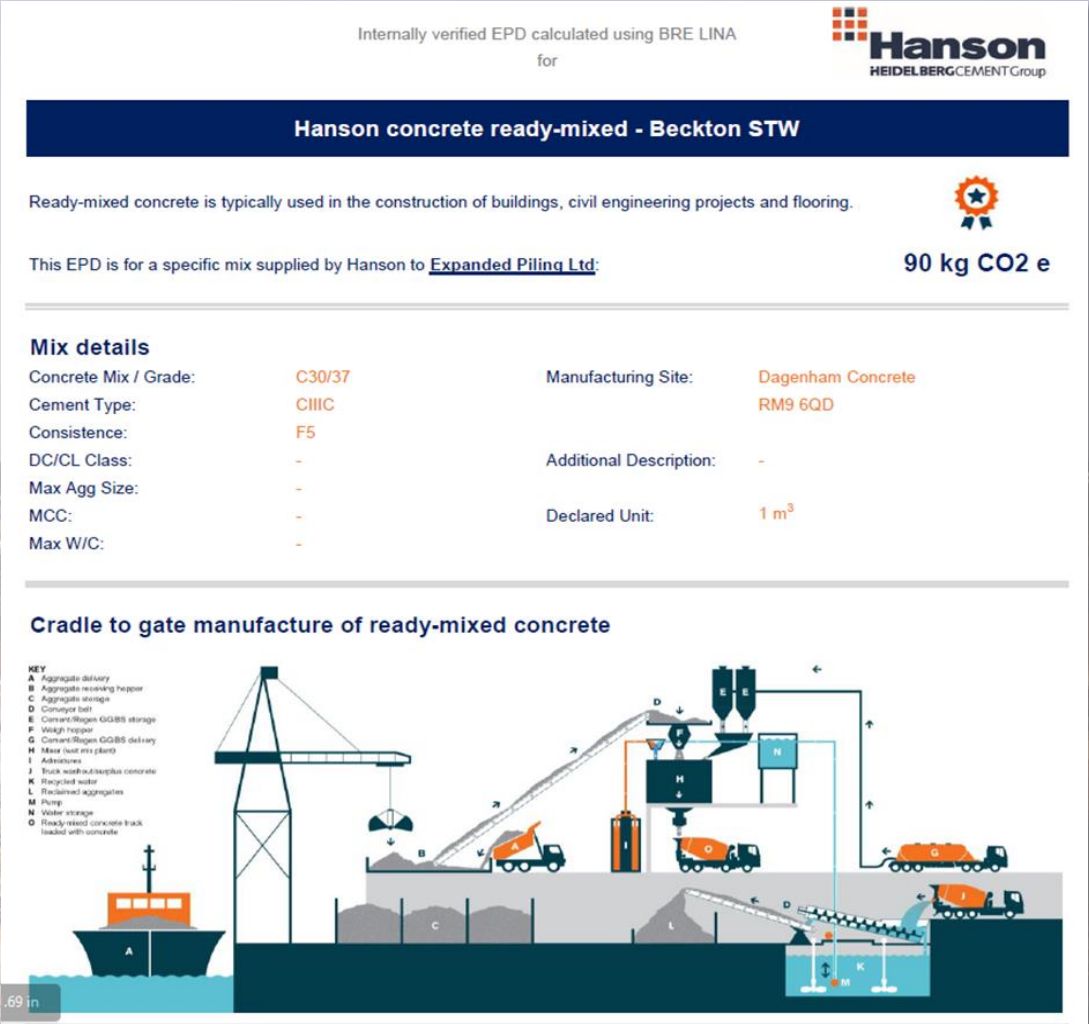
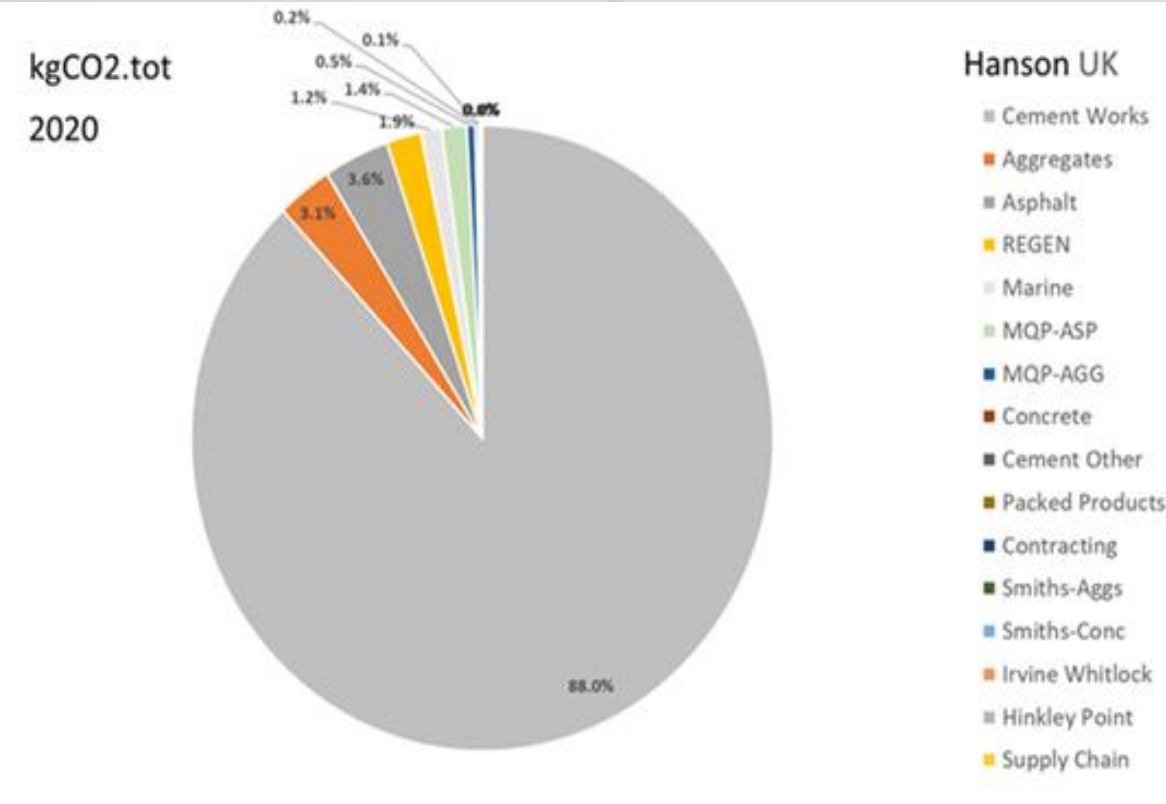
We see maximum potential in the immediate term to collaborate with our clients to work together to offer the optimum solutions for their projects. For example we're able to offer project specific environmental product declarations (EPDs) to enable the lowest practical carbon solutions for any given project

Earlier this year we carried out research with a significant number of our customers and face to face meetings with many of our major clients to see how we could work together to integrate their sustainability ambitions with our own. This has already delivered projects with a total embodied carbon content much lower than it may have been previously



Question N4:

How have you helped your supply chain understand what is required against the 9 priorities?



Question N5:

As a business leader what do you think the biggest challenge is and how are you working to overcome it?



Concrete is an essential material for the construction sector from housing to major infrastructure projects. It is durable, flexible and is also 100% recyclable. During use, and in particular during demolition, it absorbs CO₂ from the atmosphere in a process called recarbonation; although this is not currently well known

Hanson UK has reduced CO₂ emissions from cement manufacture by almost 50% since 1990 by better technology, alternative fuel usage and increased efficiency

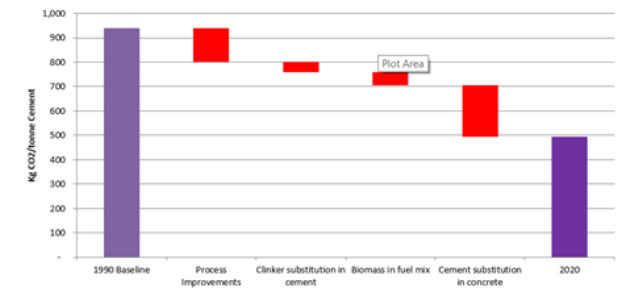
We now strive to achieve further reductions but there is no silver bullet. The scope for further efficiency improvements are limited and we must now look to find solutions that are not currently available on such an industrial scale

We are working with government, trade associations, universities and technical experts in key areas such as hydrogen fuel technology and carbon capture and storage technology

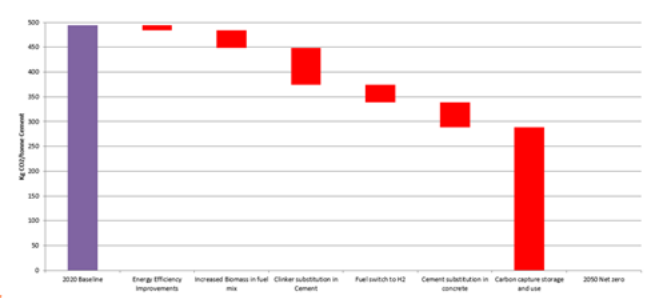
The infrastructure for such technology does not currently exist in the UK but we are working in partnership with others to bring about the change that will allow us to achieve our net zero ambitions by 2050



➤ 1990 to 2020



➤ 2020 to 2050

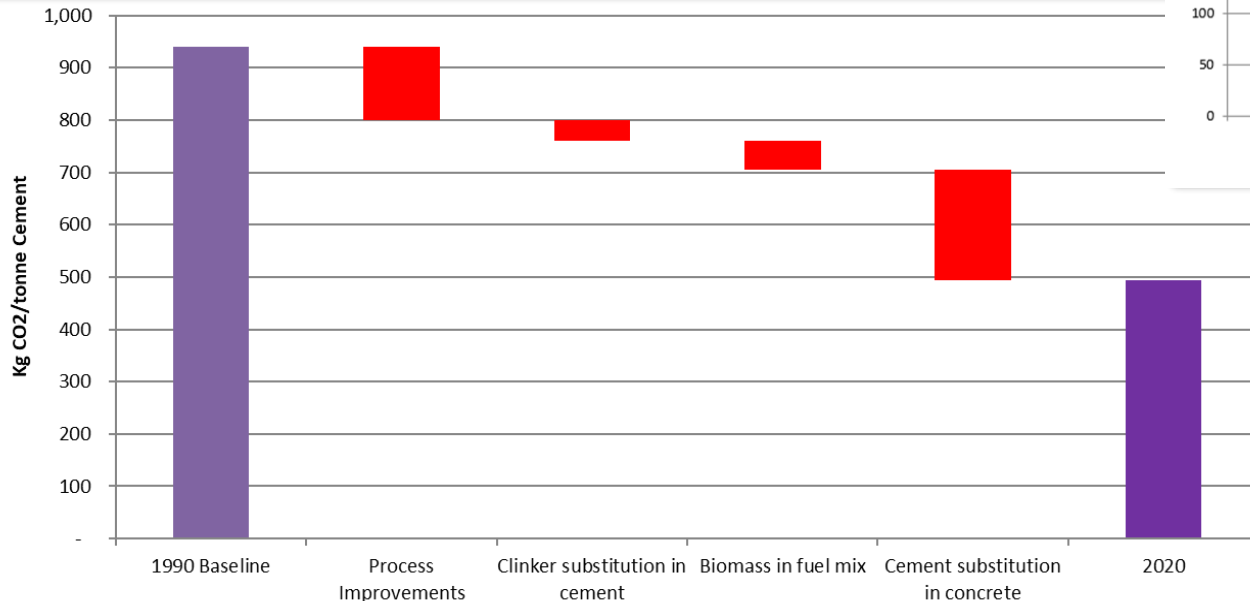


Question N5:

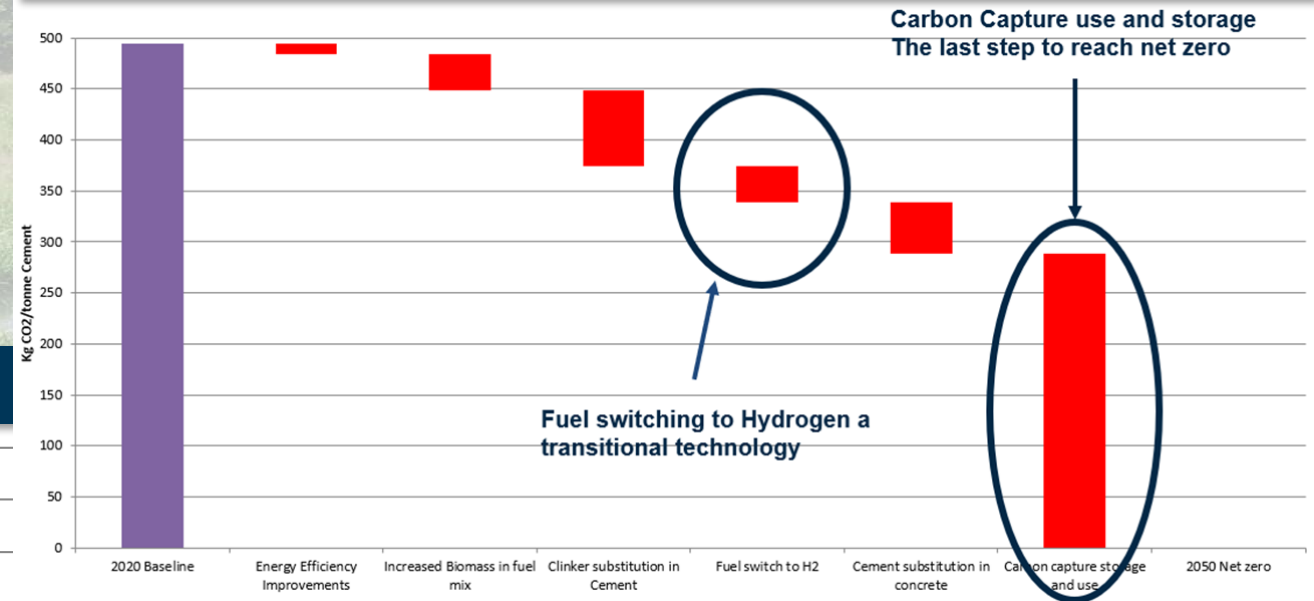
As a business leader what do you think the biggest challenge is and how are you working to overcome it?



1990 to 2020



2020 to 2050



Question N6:

In your view what is the one innovation or change that is going to have the biggest impact on carbon or progress in our industry?



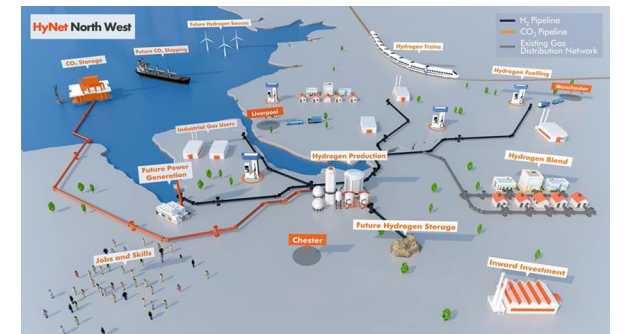
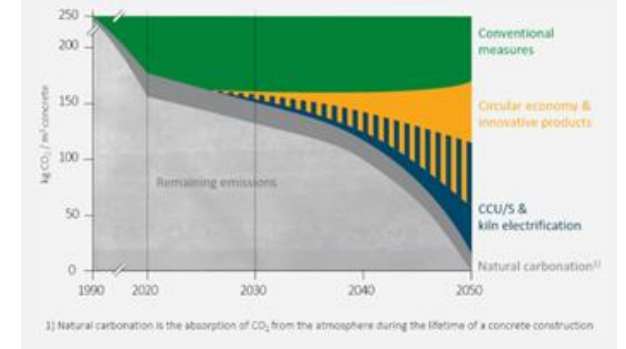
I've said that 70% of emissions during cement manufacture are derived from the chemical reactions within the process

For most construction applications there is no viable alternative to concrete and it has significant advantages over other materials. We will continue to need the material and we must strive to do this sustainably

I believe therefore that the biggest impact to reduce carbon within the construction industry and for the country to achieve its net zero commitments is to develop and innovate in the area of carbon capture usage and storage (CCUS)

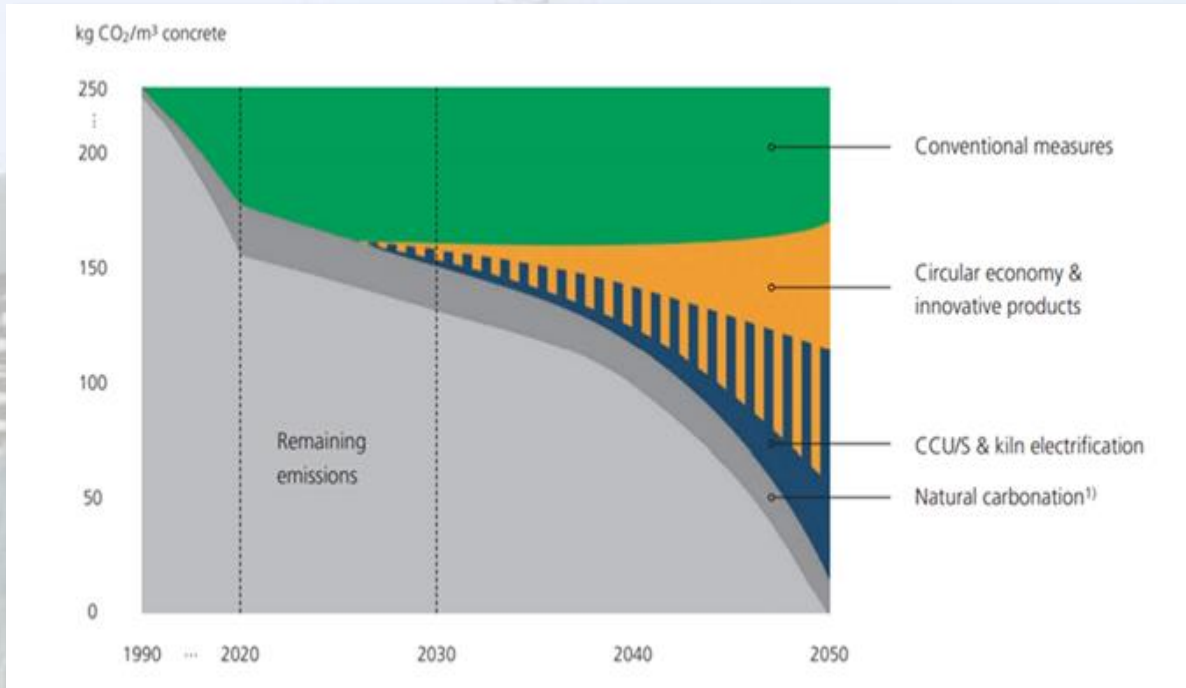
The result will be a reduction in CO₂ to the lowest levels ever seen in every construction activity that uses concrete

HeidelbergCement is working on projects worth £100's million in Sweden, Norway, Canada, Germany; and also in the UK. We are part of the Hynet consortium in the North West which has won government funding to have the worlds first industrial cluster for CO₂ capture and storage; as well as generation of a hydrogen fuel network to provide industrial, commercial and residential outlets. This could be in operation as early as 2027



Question N6:

In your view what is the one innovation or change that is going to have the biggest impact on carbon or progress in our industry?



Feature interview questions to:



1. What do your peers and wider employees within your company think about the businesses' approach to Net Zero?
2. How are the younger generation within your business engaged in this?
3. What more do you think your business could be doing against the 9 priorities?
4. A Youth Voice COP climate is being organised in Milan to bring together young people globally- what would be your key issue to raise?
5. What do you do in your daily life/job that makes a difference?



Emerging Leader

Question N1:

What do your peers and wider employees within your company think about the businesses' approach to Net Zero?



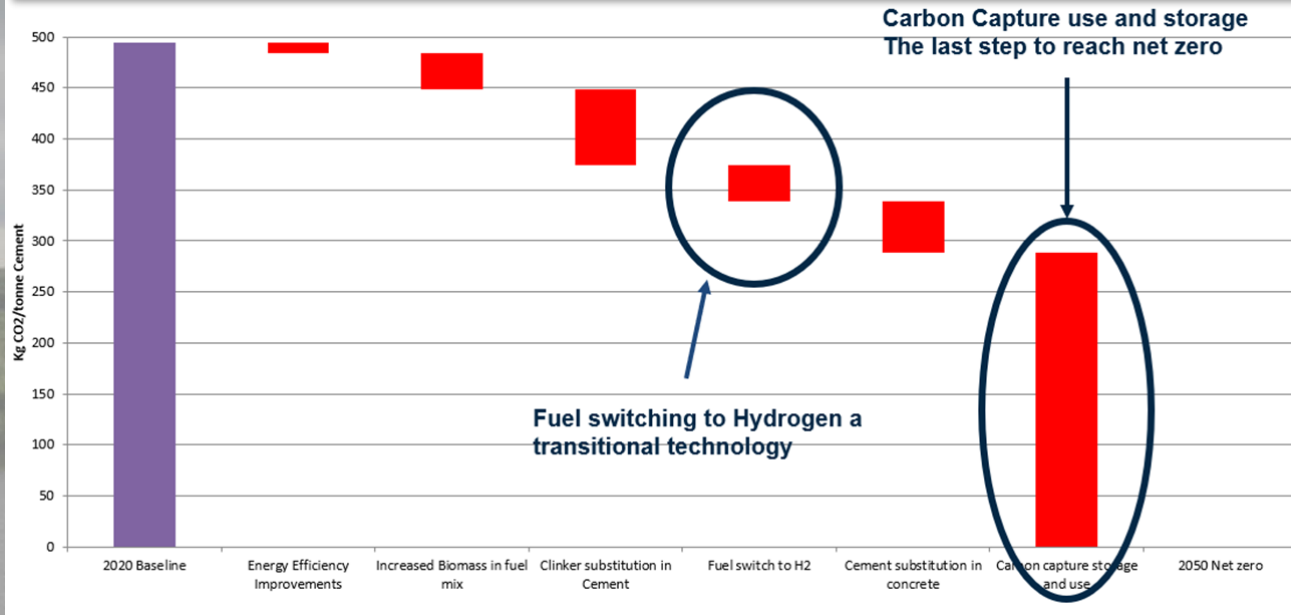
Generally, my peers and wider employees think we are taking the right approach. The net zero targets are well known, and the investment in technologies like carbon capture certainly grabs most people's interest. I think the fact that Hanson and HeidelbergCement are identifying the largest sources of carbon emissions in our business activities, and then actively trying to eliminate them at point of source is something everyone agrees is the right thing for us to do - its not just a 'band-aid' solution. It shows Hanson as a leader on this issue in our industry, and it is something our employees are taking pride in more and more

Question N1:

What do your peers and wider employees within your company think about the businesses' approach to Net Zero?



2020 to 2050

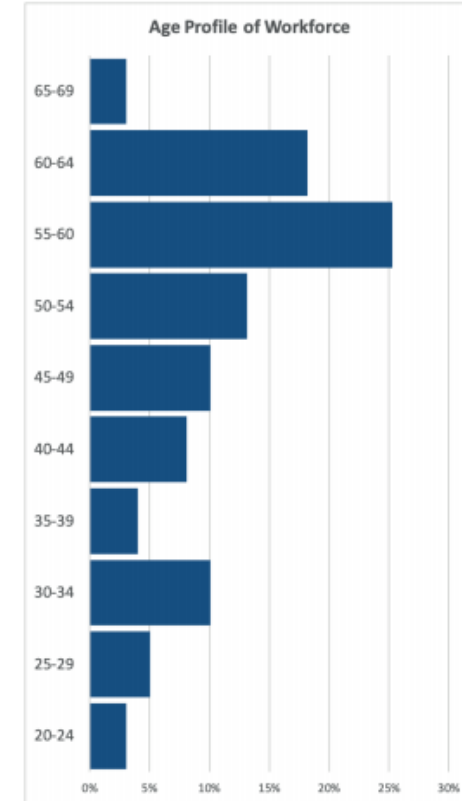


Question N2:

How are the younger generation within your business engaged in this?

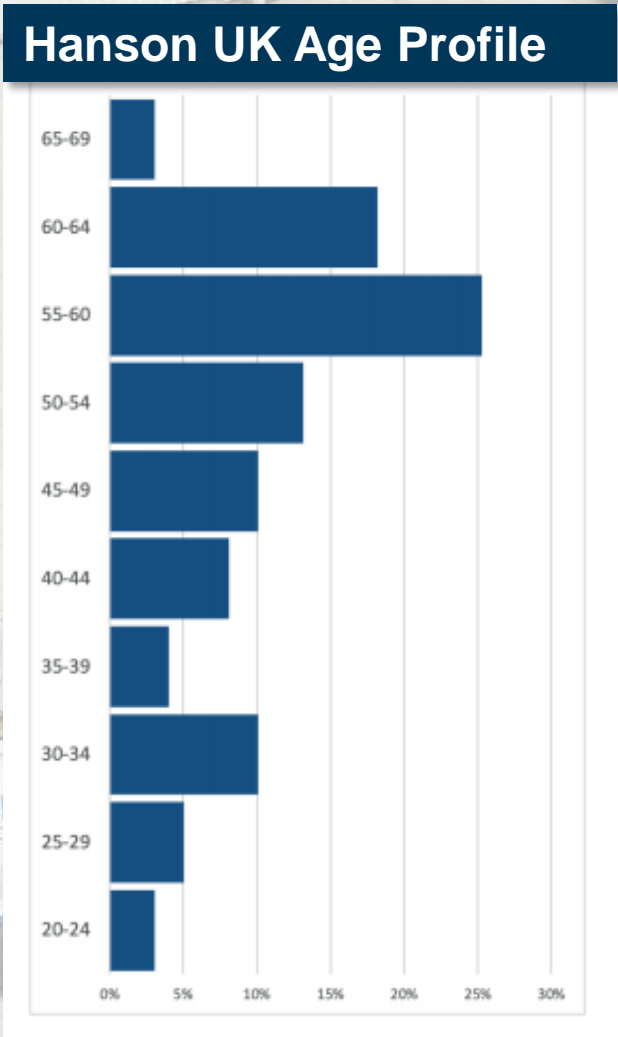


I would say the younger generation within Hanson are very engaged in the journey to net zero, and with sustainability as a whole. Most of us have grown up with climate change being the number one issue in world affairs, so coming in the business and engaging with net zero just seems normal. I think perhaps for older generations, the shift in culture and ways of working to reduce carbon emissions takes some getting used to, but the younger generation have nothing to unlearn so there's no cultural barriers stopping them engaging with the issue. Generally, I would say net zero is something most young people are passionate about, and thus they are a valuable resource to Hanson in driving towards our targets. Unfortunately, under 30s current make up less than 10% of Hanson's workforce, but I think the journey towards greater sustainability is a great opportunity for young people to join the business, bring enthusiasm and fresh ideas and really show leadership in this field. Ultimately, it is the young people who are currently in the business who will be the senior managers and leaders by the time 2050 rolls around, so meeting our net zero targets will be our responsibility. It's a daunting task, but also an extremely inspiring one, and I would say the younger generation at Hanson are very engaged and ready to take it on.



Hanson UK age profile

Question N2:
How are the younger generation within your business engaged in this?



Question N3:

What more do you think your business could be doing against the 9 priorities?



I think Hanson can use their role as a strong voice in the industry to help push all 9 priorities, and it is something we should do at every opportunity – especially in our conversations with major contractors and when we get the occasional opportunity to speak with government officials.

Hanson is a very diverse company, with lots of scope to reduce its own carbon emission and help other companies reduce theirs. Specifically, I think Hanson could do more to assist the following priorities:

1. Accelerating the shift of the construction workforce to zero emission vehicles and onsite plant

- Investment in zero emissions delivery vehicles, such as electric concrete mixers (Hanson is already using hybrid concrete mixers in London)

2. Maximising use of Modern Methods of Construction and improved onsite logistics, reducing waste and transport to sites

- I think Hanson can make a real impact here. Increasing our digital design capability would allow us to fully integrate with BIM, digital rehearsals and other features of smart construction. This would make for a more efficient design and construction rehearsal process when working with major contractors, ultimately decreasing on-site construction time, the risk of mistakes and lowering the carbon footprint of the project.

Question N3:

What more do you think your business could be doing against the 9 priorities?



Question N3:

What more do you think your business could be doing against the 9 priorities?



7. Implementing carbon measurement, to support our construction projects in making quantifiable decisions to remove carbon

- I think, along with the entire industry, there is much more to be done on this. There needs to be industry wide collaboration toward obtaining accurate carbon measurements for all products in the construction materials sector. The data needs to be of an accepted standard with regular auditing and verifying, to ensure customers and the general public know the carbon cost of construction projects, and to allow for decisions to be scrutinised based on this. Hanson can and is working towards being able to provide accurate carbon data for all of our products, but the amount of resource required means we need to work more closely with our competitors and the MPA to achieve this important milestone in the journey to net zero

8. Become world leaders in designing out carbon, developing the capability of our designers and construction professionals to develop designs in line with circular economy - reducing embedded and operational carbon, shifting commercial models to incentivise and reward measurable carbon reductions

- I think Hanson can play a great role in assisting designers design out carbon – Hanson currently offers low carbon product ranges with proven durability for both concrete and asphalt. We can go further by being more engaged with our clients and playing a great role in the design process. The reality is that most of our 'low carbon' products are also our highest performing products, and we need to do a better job of marketing this fact. I think that will help overcome the myth that a product with sustainability credentials cannot also be a high performance product, and therefore give engineers greater confidence to design out carbon using these products

9. Support development of innovative low carbon materials (prioritising concrete and steel), as well as advancing low carbon solutions for manufacturing production processes and distribution

- Again, collaboration with our customers will help us understand where the greatest need for innovative low carbon materials is. Then, with strong investment from the business, Hanson can work toward developing these products to help make net zero construction a reality

Question N3:

What more do you think your business could be doing against the 9 priorities?



The REGEN logo features the word "REGEN" in a bold, black, sans-serif font, with a green square containing a white grid pattern to its left.

The Hanson HeidelbergCEMENT Group logo, featuring a blue square icon with a white grid pattern and the company name in black text.

THE STRENGTH BEHIND SUSTAINABLE CONCRETE

The Hanson HeidelbergCEMENT Group logo, featuring a blue square icon with a white grid pattern and the company name in black text.

The EcoPlus REGEN logo features the word "EcoPlus" in a green, sans-serif font, with "REGEN" in a bold, black, sans-serif font below it, and a green square containing a white grid pattern to the left.

Concrete that's greener from the ground up

A detailed architectural line drawing of a modern building with a complex, multi-tiered structure and a grid-like facade.

The Hanson HeidelbergCEMENT Group logo, featuring a blue square icon with a white grid pattern and the company name in black text.

Hanson era[®] 140

Technical data sheet

A photograph of two construction workers wearing high-visibility orange and yellow safety suits and white hard hats, standing on a road construction site.

A new warm-mix asphalt solution that is designed to be environmentally friendly.

Hanson era[®] 140 incorporates a specialist bitumen that allows asphalt to be produced at a reduced temperature (up to 30 degrees lower), when compared to conventional hot mix asphalt. This in turn leads to a fall in the level of embodied CO₂.

The sustainability benefits of this product can be enhanced even further with the incorporation of recycled material within the mix.

The era logo features the word "era" in a bold, black, sans-serif font, with "today's greenest asphalt" in a smaller font below it.

The Hanson HeidelbergCEMENT Group logo, featuring a blue square icon with a white grid pattern and the company name in black text.

Reduced Emission Asphalt (REA)

A photograph of a white Hanson Reduced Emission Asphalt (REA) truck with a large orange and white striped tank, parked on a road construction site.

Hanson's new range of Reduced Emission Asphalt (REA) products help to minimise the impact of asphalt production and laying on local air quality.

Question N4:

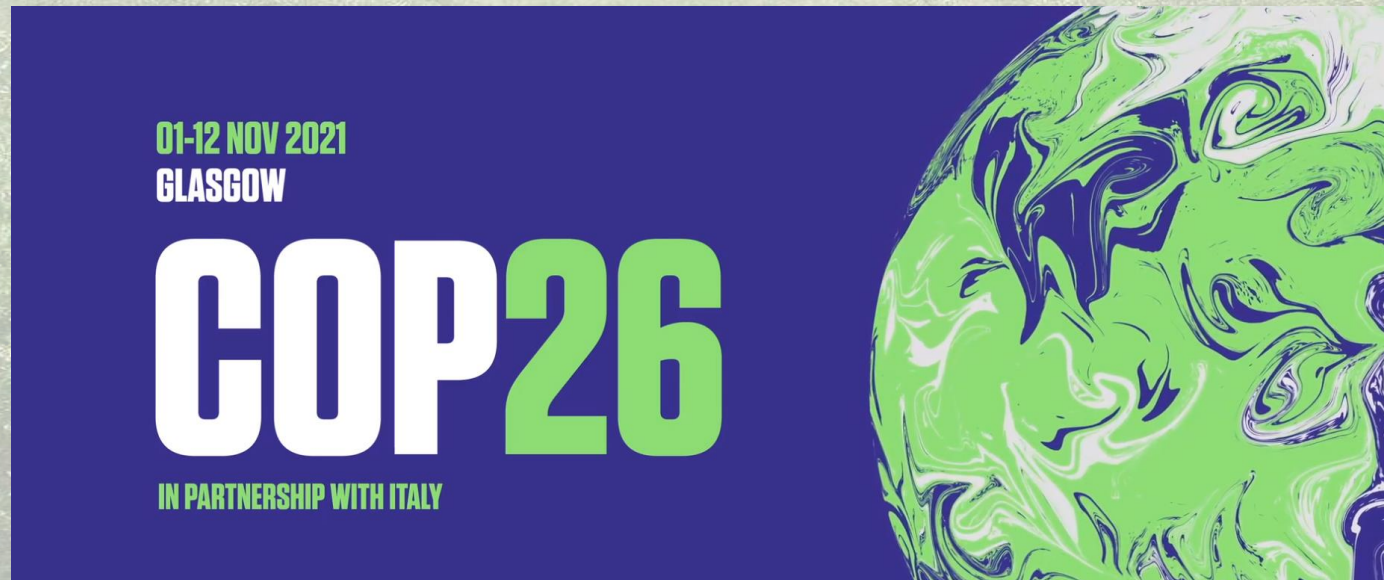
A Youth Voice COP climate is being organised in Milan to bring together young people globally- what would be your key issue to raise?



My key issue would be to encourage a re-think around the metrics associated with carbon emissions and the journey to net zero. While everyone knows that net zero by 2050 is the target, there is little talk of any year-on-year improvements and personally I feel like this dis-engages most people as 2050 feels like a long way off. I think it is very important to start seeing gradual year-on-year improvement in emissions from all major countries, and this will give people a lot more confidence that we are heading in the right direction. I think having a year-on-year metric for carbon performance, and associated penalties for not doing so, will inspire much more immediate government action. This will then have a trickle-down effect into the construction industry, putting a greater emphasis on immediate action in our sector and allowing companies who are already making progress toward net zero to benefit and grow

Question N4:

A Youth Voice COP climate is being organised in Milan to bring together young people globally- what would be your key issue to raise?



Question N5:

What do you do in your daily life/job that makes a difference?



In my daily life I try to be an informed consumer, and try to ensure I re-use things I have at home as much as possible and purchase sustainable products. Its not always easy, especially when they cost more! But I think its our job as consumers to create greater demand for lower carbon products, and force major suppliers to become more sustainable in order to stay relevant

In my job, I have an active role in promoting sustainability through being part of Hanson's major projects bidding team. I try to identify where Hanson can help clients reach their sustainability goals, and promote sustainable solutions wherever possible. These conversations are starting to happen now, and I hope this can build towards creating collaborative supply chains on construction projects, with all parties aligned towards maximizing sustainability. I've been fortunate enough to see the full breath of the Hanson business during my time here, and I have tried to use that privilege to keep the conversation going on carbon wherever I go, and share achievements and best practice from one area to another. It's a big part of what drives me, and its certainly crucial to the future of our business!

Question N5:

What do you do in your daily life/job that makes a difference?

