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Business Champion Commitment

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

Keltbray's strategy within the market place is to redefine the way sustainable development is delivered.

As part of this, it's extremely important to us to make progress in our journey to achieving Net-Zero, not only to de-carbonise our own operations, but also because most of our clients can only achieve their Net-Zero ambitions if we support them in doing so.

This particular position within the industry puts the Net-Zero agenda and drive for Keltbray to achieve it at the very forefront of our Sustainability Strategy.

Which of the nine priorities (detailed below) are most relevant to your business and clients and why?

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

The fuel required to power our road vehicles and onsite plant accounts for almost 90% of Keltbray's energy demand. However, these vehicles and heavy plant are necessary to support our client's requirements, therefore, accelerating the shift to finding a zero emissions alternative is key to us and our clients.

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

Maximising use of MMC is very relevant to our business model as it allows us to explore and implement production line efficiencies off-site, and eliminate wastes and risks on-site. Keltbray has an off-site pre-cast concrete facility which makes various components. Optimising the concept of MMC will provide us greater control of the materials needed to produce the given components off site, which in return will allow a project to act more like an assembly project. This will significantly reduce the construction time and the size of the work-force required for a project. Increasing the speed of a project and reducing the risk by reducing the size of work force on site are both very relevant to us and our clients.

3. Championing developments and infrastructure investments that both enable connectivity with low carbon modes of transport and design to incorporate readiness for zero emission vehicles Buildings

The infrastructure arm of Keltbray specialises in electrification of the national grid from high voltage transmission to the low voltage distribution. As the country decarbonises and more renewable energy comes on board, it will be key to design and implement smart grids, which can provide power for low carbon vehicles and also communicate to such vehicles in order to utilise the storage capacity. Keltbray is set up to support the developments and deployments of such projects and sees it as a priority.

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5. Scale up industry capability to deliver low carbon heat solutions in buildings, supporting heat pump deployment, trials of hydrogen heating systems and heat networks

This priority is also very relevant to us and our clients as we have been working for several years on a pile which does not only act as the foundation for a building, but can also provide several additional benefits such as a heat pump which can be utilised to provide heating or cooling to a building

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

Measuring the performance of our operations has been at the forefront our carbon management journey. This priority is very relevant to us and our clients as we are very data led in our decision making process. We have systems to measure our Scope 1 and 2 emissions and we are working on different ways to visualise the performance of all of our vehicles in order to measure our efficiency. We are also working internally and with external stakeholders to standardise a way to measure Scope 3 emissions, which will be a great step forward for the industry.

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.

At Keltbray we pride ourselves on being innovators, the Group's capabilities and services are constantly striving to designing out carbon (i.e. hollow pile), reducing embedded carbon (i.e. offering low carbon concrete as a standard material for temporary works), and reducing operational carbon (i.e. rolling out the latest engine technology, alternative fuels for further immediate benefits and the pioneering of new technology such a fuel cells).

Our ambition to innovate and our commitment to supporting our client's ambition to achieve Net-Zero also makes this a key priority.

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.

We have been at the forefront of the deployment of low carbon concrete, becoming the first civil engineering firm to offer a low carbon concrete as a standard material for temporary works.

We are continuously exploring the capabilities of alternative building materials, and working with stakeholders to explore and push the boundaries of both the materials and the building standards to enable sustainable materials to be used in different sections of a project.

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

We have set a clear vision for the Group to achieve Net-Zero and are working with each division to set local objectives in order to provide a structure for what we need to achieve in the short term.

By setting science based targets (Scope 1, 2 and 3), we will provide clarity on what we need to do to be in line with the global effort of keeping the temperature well below 2*C and we are committed to achieving our science based target by 2026.

To ensure we are able to visualise the performance of our on-site plant we are rolling out digital monitoring equipment which will allow a consistent review of our operational carbon performance, and allow us to engage with our teams and strive for maximum efficiency.

We are working very closely with suppliers of alternative materials and equipment's and are hosting different trials in collaboration with external verifiers, such as Imperial College, which will quantify the benefits of such possible solutions.

We are also collaborating with clients, policy makers and different industry leaders to fully understand the challenges to Net-Zero with the objective of breaking the barriers and speeding up the process.

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

With those suppliers who have a key impact to our carbon performance i.e. concrete and fuel, we are working closely to understand the possible alternatives to the original solution.

For concrete, we have worked extremely closely with one of our key suppliers and have provided our commitment to low carbon concrete; this was achieved by guaranteeing that we will use at least 11,000m3 of low carbon concrete by July 2021. This has enabled our supplier to make the necessary investment in the batching plant in order to increase their supply capacity.

Similarly, with regards to fuel, we have worked closely with our supplier and have carried out extensive testing of a hydrotreated vegetable oil (HVO) on our machines. To achieve this we have utilised our close relationship with Imperial College to carry out live monitoring of the tail pipe emissions, in order to quantify the actual environmental benefits.

Both suppliers were tackled first as the product they supply is a key contributor of our overall emissions, however, to provide structure and ensure the same level of engagement and development with all tier 1 suppliers we have made it a company objective to engage, support and challenge them.

What do you think the biggest challenge is and how are you working to overcome it?

I strongly believe the biggest challenge is to synchronise every stakeholder and the relevant operations needed for a project to achieve Net-Zero.

Unless all the material and equipment is emissions free, the simple fact that each stakeholder has their own operational efficiency and also has to satisfy a different scope set by a different client, creates a lot of waste.

Therefore, the biggest immediate challenge the industry has to achieve Net-Zero is to collaborate.

If the developers and principle contractors have the long term visibility of a country's carbon goals, the contractors had the visibility from the projects planning stages, and the suppliers

of materials and equipment had a visibility of the contractor's requirement, then without the need for any other materials or technology the industry would be able to make huge carbon savings.

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 think the biggest impact on carbon the industry can have is how it views materials and developments in order for infrastructure to either be reused, refurbished and finally recycled.

Ultimately, in order to avoid the global temperature continuing to rise we need to stop causing a negative environmental impact.

Therefore, I am not insinuating that we need to stop building, but we should start building with circular economy in mind.

The difficulty of this is that a 50 year old building was not built with circular economy in mind, therefore, to try and de-assemble and retrofit will most like be a lot more difficult to demolish and start new.

That may be the best way in some cases, but in some instances a specific building may still have many more years to live and we should not be looking to demolish and build higher due to its footprint, we should simply look to build new elsewhere and re-instate that existing building.

Such conversations raise many commercial questions, but unless we find a healthier balance between the commercial and the environmental world, we will not keep global temperatures well below 2*C.

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

Our company's journey to Net-Zero has not long started, however, we have engaged all relevant business leads to share the vision and the implementation plan which will support it.

Throughout the different industry's Keltbray is involved in, we have made sure to be aligned to our clients and key stakeholders and have put a clear plan which will aid the decarbonisation of our operations as much as possible, using the currently available technology and have several measures in place we can take with immediate effect.

This practical and tangible approach has been very well received by our peers as they receive our approach to Net-Zero to support their own clients expectations.

One of the biggest changes I have noticed in how our teams and the general industry is starting to think about sustainability and Net-Zero, is that if we don't embrace it and support our clients in achieving their own objectives, we will not keep winning work.

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

I would be lying if I said all the younger generation is heavily engaged in this, but the truth is that we have some pockets throughout the business of very talented individuals who want to make a difference.

When we first started to formalise our journey to Net-Zero there were several contract stand downs within our infrastructure division which we took as an opportunity to engage with our teams and share our Net-Zero vision. As part of this, we asked for members of the team who had an interest if they wanted to become a Net-Zero Advocate. We had great interest and

now have a small team who work within different departments and support our Net-Zero journey.

Our long term plan is to have champions within each business to support and drive their own operations to Net-Zero. This may be a couple of years away for the entire business, but the process has definitely started.

Our temporary works and civil engineering design arm Wentworth House Partnership (WHP) are leading the way with the employment of a sustainability/Net-Zero champion. Tom Dolton who is a grade 2 engineer has taken it upon himself to steer the business to reduce its carbon footprint.

I am working very closely with Tom to implement the PAS2060 Carbon Neutrality Standard in order for them to reduce their carbon emissions as much as possible and what they cannot fully eliminate, they will offset.

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

As much as Keltbray is fully committed to achieving Net-Zero, as mentioned, in the grand scheme of things we have just started the journey. By maturing our culture we will naturally have further engagement and a deeper understanding of how all of our activities will need to adapt in some form for us to have a Net-Zero impact.

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

A key issue that I would raise would be around the practical approach of what we can all do today in order to reduce our emissions.

It's sometimes easier to look at futuristic solutions and technologies which can completely eliminate our emissions, but the reality is that many of the required technologies to replace plant and machinery today do not exist.

Therefore, if we concentrate on how the issues we face today are derived then it may help us become more efficient with immediate effect.

A few examples of this could be:

- The construction industry relies on generators because they are cheap and practical – if planning for a temporary building supply was carried out then mains supply is a lot cheaper and cleaner than a generator
- Excavators are required for several activities on construction and infrastructure projects, we cannot remove them today but we can use them as efficiently as possible, however the reality is that excavators throughout the industry are known to idle between 20 and 50%.

The above examples are very basic, but these approaches can be applied to many activities which when added up have a huge impact.

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

I have loved engineering for many years, and having grown up near the Alps in Northern Italy I have always had a great passion for the natural environment.

I have been working in the industry for around 10 years with the primary objective of my role being to reduce the environmental impact of an organisation.

In this time my skill set has grown and I have refined the ability to understand how a company's operations may be having an impact on the environment, and find solutions to reduce this impact as much as possible.

As part of my daily job I am consistently looking for solutions to reduce the possible environmental impact related to Keltbray activities.

These solutions vary from actual technical changes, to our equipment and process, to engagement of our teams to bring them on board and the way to designing and implementing a short and long term strategy which ensures the company is focused and aligned to the latest legal, client and environmental requirements.

This passion for our daily lives to have a minimal impact on our natural environment is not only applied at work but also throughout my life. In my personal life, I strive to be as energy efficient and create as little waste as possible.

To further support how my knowledge can benefit the environment, I have recently opened a dedicated Instagram account which shows to the public how the smallest changes can make a big difference.

The information I share on the account has been well received and I have found that the little time required to create informative posts (insulating chimney breasts, bleeding radiators, how to choose environmentally friendly paints etc.), has already been applied by friends, family and followers which in return provides environmental benefits.