

'Zero Carbon' Business Champions (and emerging leaders) from the M&E sector. ECA nomination.

ECA Nominated Business Champion – Dave Kieft, Group MD at RDM Electrical and Mechanical/EFT Consult, South Wales.

www.rdmelecandmech.co.uk

www.eftconsult.co.uk

Dave Kieft has also nominated an Emerging Leader – Chris Jenkins. “Chris has quickly come through the ranks from apprentice, electrician, estimating and project management and now design manager. This is due to his commitment to ensuring innovative solutions at every level. He has led the technical delivery of PAS 3003 and is now a steering group member of BS 40101”.

The answers to Dave Kieft's interview questions are shown below, and aspects of the nine priorities of particular interest are also highlighted below.

Interview questions to Dave Kieft:

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

The key focus of our business is improving the performance of a building, including the energy used and the health of the occupants due to their surroundings. We have recently developed PAS3003- which is now to become BS-40101. We are also focusing on the embedded energy and carbon within the construction of our buildings.

- Which of the CLC's nine priorities are most relevant to your business and your clients, and why?

EFT and our clients realise the importance of analysing the whole life cycle of a buildings- from its inception and construction through to its usage and final deconstruction. We have paid particular focus on points: 2,5,6, 7,8,9 – please see below.

Modern Methods of Construction must come to the forefront of activity. With the proposed implementation of the Future Buildings Standards (2025), industry must design and create buildings fit for the future. These must not only be zero carbon ready, i.e. requiring minimal energy input for 'running' the building, but also minimise the embedded carbon and energy during the whole life cycle- including logistics and construction.

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

We are embarking on an innovative method of construction, enabling 3D printing of up to 4 storey buildings. The mixing will be conducted on site, thereby improving the carbon emissions associated with logistics. Every aspect of the mix and construction process is metered (water, materials, energy) thereby giving transparency for the embedded carbon and energy within the building. This is key to addressing points 2, 7 & 8 in particular.

Through the evolution of these building methods, it will be possible to improve the process and thereby help in addressing point 9.

Our company has also developed a full energy and wellness monitoring system for commercial clients. This enables monitoring and verification of existing BACS and BEMS systems, as well as monitoring the elements responsible for wellness within the building- such as lighting levels, air-quality (Particulates, CO, CO₂, NO_x etc). Importantly this system can be integrated with any existing system and real time data accessed through our single platform. This will aid in addressing point 6.

We are also working with developers to deliver scalable housing solutions, with buildings featuring onsite generation (PV), EESS, and being of NZEB construction- enabling thermal requirements to be met through smart electrical storage heating- thereby also providing grid flexibility and support. These would also be pre-installed with EVCP, which will enable flexible charging through integration with the other technologies. Addressing points 3 and 6.

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

We have tried to simplify the information and have provided a set of achievable steps to deliver the objectives. We have demonstrated that undertaking our processes in relation to wellbeing provides energy efficiency and decarbonization as a natural side effect.

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

The biggest challenges are getting clients to understand the importance of taking the first steps, getting them onside as to why we are driving these changes and demonstrating that it will be to their own business benefits and objectives to do so.

We have and are providing the stepping stones to demonstrate the importance of their business models and CSR responsibilities as well as the ability to demonstrate to their own staff that they work for a company that cares about them and the future generations coming behind us.

- 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?

Construction: as stated earlier- modern methods of construction must be employed going forwards to address how our buildings are constructed as well as understanding full energy and carbon within the construction. This coupled with real-time energy analysis are the greatest tools we have in reducing carbon and energy usage.

Note: the nine Construct Zero Priorities are:

Transport

1. Accelerating the shift of the construction workforce to zero emission vehicles and onsite plant
2. Maximising use of Modern Methods of Construction and improved onsite logistics, reducing waste and transport to sites
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

4. Work with Government to deliver energy efficient retrofitting of existing housing stock

25/5/2021 Paul Reeve, ECA

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
6. Enhancing the [energy performance of new and existing buildings](#) through higher operational energy efficiency standards and better building energy performance monitoring

Construction Activity

7. [Implementing carbon measurement](#), to support our construction/maintenance projects in making quantifiable decisions to remove carbon
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.
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.

ECA nomination contact: Paul Reeve, Director of CSR

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