

“At Tarmac, there is a business-wide focus on sustainable innovation and solutions which help customers and clients deliver better outcomes for both the built environment and wider society. It’s important to remember that we are not alone in this ambition and that collaboration with our suppliers is key to meeting sustainable targets.”

Jonathan Harry, procurement director at Tarmac

Solutions

NET ZERO

Supplier Innovation Challenge

In 2022, an innovative hydrogen fuel supplement system was named as the winner of Tarmac’s third Supplier Innovation Challenge, an initiative that encourages suppliers, organisations and individuals to submit ideas which can support the acceleration of Tarmac’s journey to net zero.

47 innovation ideas were submitted and scored against criteria including technology readiness, potential business impact and feasibility, the winning and highly commendable entries are refined, developed and brought to life by Tarmac as part of the scheme.

The 2022 winning entry was submitted by Prior Power Solutions for a hydrogen introduction system that can be fitted onto new or existing diesel engines to supplement cleaner hydrogen fuel into internal combustion engines (ICEs), offering CO2 reductions of 8%.

Rather than storing hydrogen in the vehicle, it is produced on demand from de-ionised water. This is then pumped into the ICE so that less diesel-based fuels are required, resulting in an 80% reduction of diesel particulates and over 20% reduction of nitrogen oxides.

The reduced diesel content also means that engines remain cleaner and therefore require less maintenance over time, increasing the lifespan of vehicles with this innovative system implemented. In addition to the reduction in polluting emissions, the fuel efficiency and torque of vehicles can be increased, leading to ongoing cost savings for vehicle operators.



Jonathan Harry, procurement director at Tarmac, said: “A huge congratulations to Prior Power Solutions for putting forward this innovative technology which can help transform ICE vehicles into more sustainable, longer lasting assets. Working in collaboration, we are excited to see the start of the next phase of development.”