



**Category: Best use of Technology to benefit the Environment - WINNER**

**MHA+ member name**

Galliford Try, Infrastructure, South-East Aylesbury Link Road

**Other partners involved in the development of this product /project /nomination**

L.LYNCH, Ultimate Cell Technology

**Summary**

As part of the South-East Aylesbury Link Road (SEALR) project's sustainability goals, the team trialled **Ultimate Cell**, a hydrogen-based fuel enhancement system, on selected plant machinery. The system generates hydrogen through electrolysis and injects it into diesel engines, improving combustion efficiency, lowering fuel use, and reducing emissions, without requiring engine modifications.

Units were fitted to a 15-tonne excavator, site dumper, and tele-handler, and monitored over three months via onboard telemetry and operator feedback.

Results showed fuel use drops by 15 -20% with CO<sup>2</sup> omissions in a similar upper range.

Operators also reported longer fuel cycles and cleaner start-ups, with no negative impact on performance. Compact, reversible, and easy to install, Ultimate Cell proved an effective, low-barrier way to reduce carbon.

This trial reinforces SEALR commitment to sustainable construction and highlights scalable innovation as a key enabler in the transition toward a nett-zero future.