Bristol tech firm celebrate award win for second consecutive year
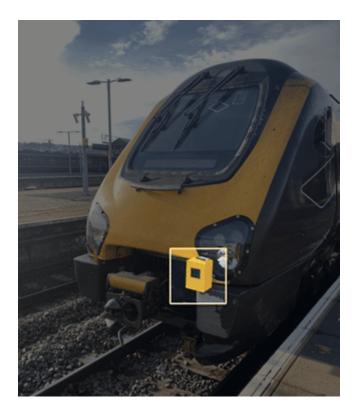
November 4, 2022

Bristol-based start-up One Big Circle are celebrating success after this year's National Rail Awards. The 'Safety Achievement of the Year' accolade was won in collaboration with the Signalling Innovations Group at Network Rail for their work in automatically detecting hotspots on the third rail.

The third rail is the conductor rail for electric trains in many lines in the Eastern area of the UK. Faults in the conductor rail caused by overheating components can lead to huge delays for passengers and freight, and are dangerous for teams to attend and fix; detecting hotspots in advance of the failures enables rapid preventative response, whilst significantly reducing costs and delays.

Based at Temple Studios, the team uses their innovative AIVR (Automated Intelligent Video Review) system to capture thermal imagery from cameras mounted onboard trains; Machine Learning is then applied to detect hotspots to alert engineers to their exact location. The video data is accessed online which removes the need for engineers to be on site for inspection, whilst the thermal images enables them to see what the naked eye cannot. This saves thousands of hours of time on site and keeps teams away from the live rail with all its associated risks.

Cameras are mounted on the front of trains

Co-Founder Emily Kent said "We're so proud of achieving this industry recognition. For a company of our size to win such a prestigious award amongst such heavyweight competition is real testament to what our specialist team can do. Equally importantly is how we work closely with our partners at Network Rail and the Train Operators to ensure we are meeting their needs, as they deliver their vision for the Digital Railway of the future."

The National Rail Awards are considered one of the most prestigious events in the UK rail calendar and are hotly contested every year, with a record number of entries received in 2022. They are an opportunity for all areas of the rail industry to share best practice and outstanding achievements from the previous twelve months.

The judging panel deemed the One Big Circle innovation to be 'a truly impressive entry' that is 'game-changing' in its ability to enable remote inspection and to direct response teams to the components that are experiencing early stage failure.

In a ceremony that had been postponed twice, due to Industrial action on the railway and then for the period of mourning following the death of Her Majesty the Queen, the awards were held on Monday 10th October and presented by TV presenter and journalist Steph McGovern. Over 1,100 rail industry professionals attended the event at the world-renowned Great Room at the Grosvenor House Hotel in Pall Mall.

One Big Circle is no stranger to winning awards, having secured the 'Innovation of the Year' award at the same event in 2021 and securing a number of rail and technology accolades in the past twenty-four

months.

"Winning two separate categories at the National Rail Awards in two consecutive years is pretty extraordinary," continues Kent. "We are so passionate about making data accessible in challenging environments – we know that remote inspection improves safety every day, and that's what drives us to continue to deliver robust innovative solutions.

About One Big Circle

One Big Circle is a rapidly growing technology company that specialises in 'Intelligent Video' solutions within challenging and complex environments. Founded by Emily Kent, Ian Packer, Sam Low and Barnaby Kent in 2017, the company started life in Brunel's iconic Engine Shed near Bristol Temple Meads. It has since grown to a team of 26, and during the pandemic moved to dedicated office and lab space at Temple Studios, just across the station from their first home.