

# Innovating in the utilities industry

Reinstatement teams are now able to make their own hot-mix asphalt directly at the job site, in just the quantity they need, thanks to the invention of a mobile asphalt batch plant

Utility companies are one of the most significant contributors to economic growth in the UK, investing billions of pounds each year to ensure the safe and reliable essential utility services that underpin our economy and connect local businesses. However, with population growth expected to reach 73 million people by 2035, bringing with it a staggering 43 per cent increase in road traffic from 2010 to 2040, investment alone will not be enough to keep our road infrastructure fit for purpose.

While massive growth in both population and traffic density clearly requires equivalent growth in investment across our utility networks, what's perhaps more important is our ability to leverage the cost savings and efficiencies to be gained from emerging technologies and innovations. Equally, this will enable a smarter, more sustainable approach to street works and ultimately lead to a reduction in traffic, vehicle movements, waste, road closures and other general efficiencies designed to keep Britain moving and boost customer satisfaction.

The National Joint Utilities Group (NJUG) is the only trade association to represent utility companies and their partners solely on street works to share best practice and drive up performance by getting all members to sign up to the NJUG Vision: [www.njug.org.uk/njug-launches-revised-vision-street-works/](http://www.njug.org.uk/njug-launches-revised-vision-street-works/)

Clancy Docwra and Kier, two prominent members of NJUG that share a number

of key partnerships in 15-year alliances with the likes of Thames Water and Anglian Water, are also committed to innovation from the stand point of identifying and researching and developing the potentially 'game-changing technologies' of the future.

## Researching technology

One such technology they have spent the past seven months jointly researching, is a mobile volumetric process called Roadmender Asphalt. This enables reinstatement teams to make their own hot-mix asphalt directly at the job site, in just the quantity they need, at the correct temperature every time, with no waste and without the need to visit an asphalt plant.

Dickie Aston Wright, group street works manager at Clancy Docwra, said: "The technology is a true game changer in every sense of the word. It ticks all the boxes in the NJUG Vision for street works, delivers massive cost savings and efficiencies, and has the potential to revolutionise small volume utility reinstatement."

All Roadmender Asphalts bagged products are produced via a strict quality management system in an ISO-9001 controlled factory. They also meet all the mix design and performance requirements of BS-EN13108, PD-6691:210 and the SROH.

Both Clancy Docwra and Kier are trialling Roadmender machines and are now in the process of demonstrating the process, efficiency savings, carbon savings and performance benefits it delivers to a number of councils



and utility clients across the country with a view to rolling out further machines towards the end of the year. The Roadmender allows first-time permanent, high quality repairs with polymer modified materials offering flexibility to gangs to carry multiple different mix designs on board to suit their needs.

Anita Solanki, head of street works policy at Kier, said: "This transforms how we work in the industry; the system allows much more flexible working at weekends and out of hours as material is always available without dependency on the quarry. Significantly reducing our carbon footprint, waste, use of virgin materials, time and money, Roadmender allows us to reinstate more openings at convenient times, to reduce disruption and keep traffic moving."

While small utility openings, emergency repairs and ironworks are ideally suited to the arrival of volumetric hot-mix asphalt, the quality and efficiency benefits the technology has to offer may also have a key role to play in pothole patching and local maintenance works, enabling small two-person patching gangs to carry out larger numbers of permanent repairs in a working day, while also avoiding any need for temporary repairs, thus reducing further disruption.

As part of the process, in addition to making virgin asphalt on site, the machines are also able to recycle break out materials that can then be re-laid as a binder course. This part of the process is made possible by the addition of a concentrated dose of rubber modified bitumen pellets which, as part of the research process, have been proven to deliver 100 per cent recycled asphalt that has passed a class two wheel tracking test at 60°C.

Harry Pearl, chief executive at Roadmender Asphalt, commented: "Councils across the UK own more high PSV aggregate and more bitumen than any quarry or bitumen company in the country. Our technology is designed to help them to make use of it."

