



PEDALLING TOWARDS THE FUTURE

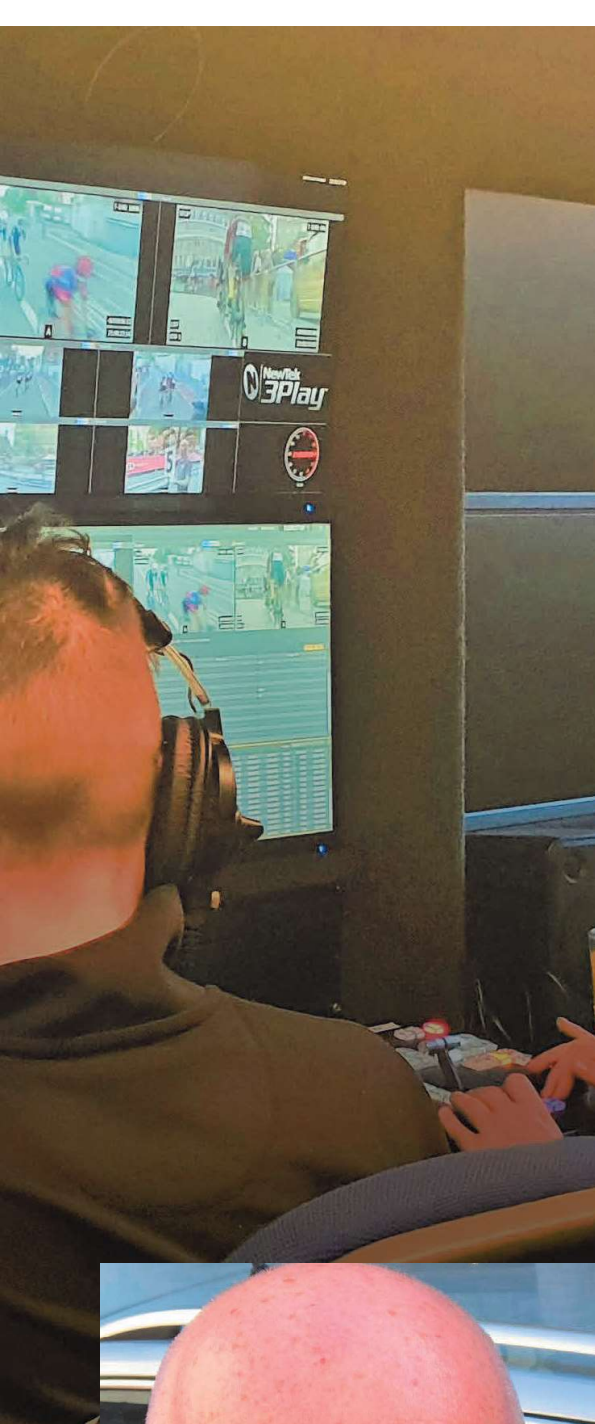
Cyclevox founder **Anthony McCrossan** gets to grips with outside broadcasting

Cycling has been a massive growth sport in the UK – and elsewhere – across the last decade. I set up Cyclevox in 2007 as an all-things-cycling production company, making TV programmes and live streams for a variety of clients, including ITV, C4 and Eurosport. We also work with charity rides – London-Paris is a prime example.

Cycling is not an easy sport to cover: it's high-speed and can be very close racing; the terrain/style of racing varies hugely, from inner-city criterium (crit) races to much longer road races and then there's the track too; and connectivity options vary greatly, even across a single event.

Our relationship with British Cycling (BC), the main national governing body for cycle sport in Great Britain, which is affiliated with the Union Cycliste Internationale (UCI), goes back over 12 years. We've handled a range of outside broadcasts for them, initially using RF and helicopters, which, of course, comes at a significant cost and logistical complexity. About four years ago we started live streaming productions for them. We have built up a huge amount of expertise about how to cover these events.

Around the end of the last Olympic cycle, BC conducted a review. It started to look at how you can cover cycling in a cost-effective way while maintaining quality. BC also



asked how to satisfy the demands of fans who don't want to watch a half-hour TV show.

Because of this, in partnership with OB provider WilkieTV, with whom we've worked for many years, we started to look at how we could use 4G and cellular bonding technology, not only for cost reasons but also to make life easier, with far greater flexibility. When you shut down a city centre for a bike race, you can't do that for the whole day, especially during the week. And for us to lay out the fibre that we needed was an awful lot of work. The rig time to do that was huge.

The first thing that we covered as a test using LiveU and 4G (rather than RF links back to an OB truck onsite and fibre cables back to it too) was the London Nocturne event, a 1.2km crit race in the capital, which isn't a BC event. We tested using LiveU-connected cameras for that event and it was covered on Eurosport. We then discussed this with BC. We also carried out a road race test using LiveU near Bristol where we covered the last hour live using a motorcycle camera-op/LiveU unit and another at the finish line. This worked very well.

We then, with the agreement of BC, moved from the test stage to real-world deployment for live streaming of key competitions.

Cyclevox was commissioned to produce exclusive live streaming coverage of the British Cycling National Circuit Series (crit racing). Each event was live streamed, with remote studio commentary, live interviews and onsite presenting to offer incredible production value.

Events were hosted in a different UK town or city, starting in June. There were nine races in total across seven different cities (some featured both male and female races). We very carefully checked each route and

connectivity: planning is crucial for any sports coverage, regardless of technology.

We again worked with our long-term OB partner WilkieTV. Using production resources in Surrey, we were able to remotely broadcast each of the nine events live. Ben Harper, engineering director with WilkieTV, explains: “The remote team was able to turn up onsite and go live without needing an OB truck or broadcast infrastructure at the event. The ability to “untether” and allow camera operators to roam freely streamlined the camera plan and crew, as one camera can cover multiple areas. The presenting team could visit the pits, fan zone, start line or VIP areas and do interviews, live links or gather additional shots without needing to worry about RF links, range or cabling.”

Each event, although in a different location, had the same setup, with the same Cyclevox and WilkieTV team, working out of WilkieTV’s MCR facility. This enabled consistency between each event from a proven location, with proven infrastructure and Cyclevox cycling know-how. The permanent MCR has better connectivity, with backup services, increased crew welfare and redundancy. Production crew aren’t travelling away from home and so there’s a large saving on transport, accommodation and expenses. This way of working is also far more environmentally friendly.

WilkieTV provided five to seven LiveU units, depending on location. One was fitted to a motorbike, which followed the action from the front of the race; another LiveU was used with the presenting team to feed back interviews, live links and additional content, which was either played out live or fed into EVS for later use. Further units were supplied for cameras at the start/finish and specific corners or positions around the circuit. A final unit was used at our Surrey MCR for uplinking to social media.

LiveU servers were bringing the feeds from each remote camera into a gallery where vision and sound was mixed. Live graphics and slow-mo replay using the NewTek 3Play were overlaid before the stream was sent for distribution.

A custom-built pop-up studio at the base provided in-vision live links, commentary and interviews. Communications were supplied between the presenter on location and studio team in Surrey to allow live handovers and real-time chat between the two locations.

Not only was the feed delivered online, it was also transmitted back to site for display on LED video screens at the start/finish line.

Our use of remote production – including LiveU Central, its Cloud-based, centralised management system – allowed the number of crew travelling onsite to be dramatically reduced, with only camera operators, motorbike pilots and a producer onsite. Equipment setup was simplified: camera operators could each be responsible for their own kit, meaning no need for an

onsite engineer. I directed each event from Surrey, using the considerable experience Cyclevox has developed, and we also cut a highlights package, which was then used more widely.

Another key consideration is power so we had power on motorbikes that we could use for the LiveU units and we had additional battery backup in case.

For the UCI Yorkshire 2019 Para-Cycling International road race event, we again used this remote production model to stream four races in full and cover the start and finish of a further six. The stream was broadcast entirely via remote production using LiveU LU600 HEVC units.



We mapped the 4G network across the entire 100km route before providing a total of nine LiveU units - four were fitted to motorbikes and followed the action between towns across Yorkshire. Further units were supplied for cameras at the start, finish and podium in Harrogate. A ninth unit was used at the Surrey MCR for uplinking to social media.

Not only was the feed delivered online, we also transmitted to six large LED screens across Yorkshire. Each LED screen truck was downlinking the feed in real-time and receiving a full mixed feed of the main output. The UCI wanted to make sure fans at the start and finish lines were able to continue following the action once the races

left (and before riders arrived at the finish), and so a screen was placed at each start town and multiple across the finish line, fan zone and VIP areas.

Finally, the feed was delivered to BBC Sport via an additional encoder at WilkieTV's facilities, allowing them to cut highlights in real-time for their BBC One show the following day.

Cyclevox sees this as the tip of the iceberg as more and more people understand LiveU and this overall remote production workflow. Last season was a gamechanger as we have shown that we can give fans what they want at a far more cost-effective price point than was previously possible. ■

