

South London Partnership iDefigo Vodafone Case Study

The South London Partnership is a sub-regional collaboration of five London Boroughs: Croydon, Kingston upon Thames, Merton, Richmond upon Thames, and Sutton.

The Partnership are currently funding and rolling out a significant 'Internet of Things' (IoT) InnOVaTe programme to manage and mitigate new challenges within the Boroughs to help residents live better and healthier lives. This includes an initiative to reduce the blight of fly tipping on the Borough's.

Issue

Recent Government figures show fly tipping costs taxpayers £392 million a year with over 60,000 fly-tipping incidents with construction, demolition, and excavation material in 2020/21, an increase of 18% from 2019/20.

Like all Boroughs in the UK, The South London Partnership have suffered from an increasing amount of fly tipping over recent years which include items such as soil and aggregates, mattresses, chemicals, discarded house contents, furniture, and miscellaneous builder's waste. The majority of this is found in streets, down alley ways, near garage blocks and on housing estates community bin areas where overflow issues exist. This is often a danger and unsightly to local residents, and at the top end of the scale there are lorry loads dumped on industrial and remote sites with tonnes of waste at a time being discarded by professional gangs and operators.

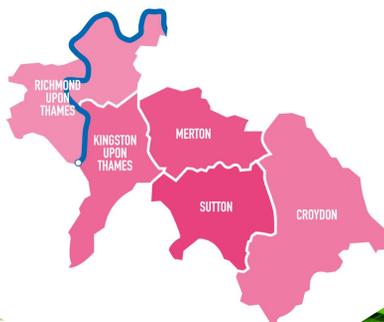
Kingston Homes and Sutton Housing Partnership consistently have problem areas blighted by criminal gangs for example a resident in Kingston is in the waste business and dumps assorted items around the estate when he can't get money for them. The Boroughs of Kingston and Sutton have similar problems, but it tends to be dark alleys away from residential areas. The solution is very simple: zero tolerance to fly tipping.

Councillors want to make a difference and make the Boroughs a cleaner, safer place to live. The councils have several initiatives to reduce fly tipping, for example, 'Scrap it' in Sutton. 'Let's SCRAP fly tipping' is a Borough-wide educational campaign that is designed to alert residents and business owners to the different forms of fly tipping, and that everyone has a shared responsibility to help tackle the problem and to highlight the enforcement work taking place to try to identify and punish the perpetrators of fly tipping in the Borough wherever possible.

Solution

Whilst Monitoring and visual intelligence helps combat crime and record events of crimes taking place. In this instance connected cameras share data wirelessly for a specific outcome - to capture fly tipping events. This enables local enforcement officers. To monitor activity and help issue Fixed Penalty Notices (FPN's), which results in a significant reduction in fly tipping and provide a substantial return on the investment of IoT technology.

To supplement the preventative local authorities 'Scrap It' initiatives, employing surveillance cameras with the ability of recording, policing, and combatting fly tipping is an important part of the overall solution to combat this crime which is why iDefigo and Vodafone have been tasked with supplying smart cameras that can detect, inform, and support prosecutions or fine in the Boroughs fly tipping hot spots.



After initial analysis determined the hot spot locations that would benefit the most from the smart cameras a programme of installation commenced in early 2022. So far over 83 cameras have been deployed, utilising the battery and solar capabilities of the cameras.

Heat maps are generated through the use of AI (Artificial Intelligence), and this is being used to determine fly tipping hot spots which informs the continued optimisation of cameras across the various locations.

Another benefit of the iDefigo cameras is the advanced computer vision processing that takes place on the iDefigo VSaaS platform core (iDefigo Managed IoT Surveillance Platform). This enables computers and systems to derive meaningful information from digital images, videos, and other visual inputs — and take actions or make recommendations based on that information. This is an important facet allowing the Smart Cameras and sensors to ultimately report suspicious activities such as fly tipping and ignore general traffic with the aim of reducing false triggers and alarms of non-fly tipping incidents. As part of the AI, iDefigo's bespoke computer vision models and algorithms allow patterns and learnings to be continuously optimised through an AI learning feedback process. Ultimately this makes the whole process far more efficient and less labour intensive than traditional surveillance approaches.

Result

Where the cameras have been positioned iDefigo's AI-powered Smart Camera solution has delivered immediate benefits for the South London Partnership. There has been a significant reduction in fly tipping incidents in both residential and industrial estate areas.

iDefigo and Vodafone are helping removing the scourge of fly tipping with advanced AI and IoT technologies. As the year progresses it is becoming clear some of the camera sites have seen an 80% reduction in fly tipping reducing the need for costly and time consuming clear-ups and waste disposal.

The BBC have recently filmed on the streets of Sutton on the project and instead of the residents saying how poor the fly tipping situation is, two residents said, "I'd be happy to be filmed", "I'd love to say what a difference it's made (the project)". "Instead of waking up each morning to find all this 'stuff' that appeared overnight". The cameras have also helped trace builders who were dumping asbestos in a housing estate, even when they had their own building site skips as they knew they couldn't get away with placing the asbestos in their own skips.

As well as the cost and time benefits it is clear the cameras lead to happier residents, less waste, a less unpleasant environment, less dangerous substances, no unpleasant chemicals and asbestos and fewer complaints. Andrew Parsons, responsible for the project says "iDefigo and Vodafone have done more than is probably necessary through goodwill, they have been very flexible with us... It has genuinely made a night and day difference this is making to blighting residents' lives. It is clear that an 80% reduction in fly tipping is a tangible benefit of our efforts".

About iDefigo

iDefigo, a UK-based specialist in hardware and software solutions for remote surveillance, uses Smart Camera solutions that directly addresses the challenges that come with monitoring fly tipping sites. Unlike CCTV, the Smart Cameras offers high-grade robust cameras that are easily installed anywhere at low cost. The Smart Cameras capture events that matter and transmit images to any device, 24/7, with no on-site power, networking, or integration required. Importantly, the cameras send alerts when a trigger event has occurred and use AI and computer vision models to improve efficiencies and reduce cost.

**Visual
intelligence.
Anywhere.**

