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LAW ENFORCEMENT

# How tech is transforming policing

UK police forces are enlisting technology to help fight crime and keep the public safe

Hazel Davis

There was a time when policing relied on the nous of officers on the spot, but now technology is transforming how the UK deals with crime.

As police forces across the country are increasingly being asked to do more with fewer resources and less funding, facial recognition software, body cameras, artificial intelligence, drones and innovative ways of collecting data are all being used to fight crime on the frontline and behind the scenes. Technology is helping officers respond more efficiently, share information more quickly and, most importantly, catch criminals.

Data is key for 21st-century crimefighters. West Midlands Police is the first UK force to hire

its own data scientists, data engineers and visualisation specialists, deploying data-driven insights to radically improve its capabilities and help provide cutting-edge services for its 2.8 million citizens.

“Back in 2015, when I joined the force as a consultant, all our data was held across different platforms and was difficult to manage,” says Helen Davis, assistant director of IT and digital at West Midlands Police.

“These legacy processes made it hard to garner real insights from the data we held.” Working with Cloudera and Accenture, the force has created a core data hub, consolidating information from previously disparate, siloed systems and enabling quick data insights and positive interventions.

The single source of key police data can be securely accessed by 6,000 concurrent users, in real-time, across desktop and mobile. Now police on the street can access vital information, about a location or car registration for example, at the touch of a button and the hub

A police officer carries a drone used to aid in a crime scene in Manchester 2019

“The basic foundation for the use of this technology is that everything happens somewhere

has already been used to inform more than 1.5 million inquiries.

As criminals operate internationally, data such as biometrics, criminal history and arrest warrants are beginning to be shared by forces all over the world.

The focus on data – collecting, analysing or sharing with other forces – has become a top priority, not only in the UK but across Europe. The Police Service of Northern Ireland, for example, has worked with Civica to integrate its backend systems to allow law enforcement to make better use of the available information.

Drones are substantially cheaper, quicker to deploy than a helicopter and less obtrusive to the general public. Some early-adopting UK forces have been using drones for several years, while others have only recently started to adopt them.

Compact, lightweight drones can also be very quiet, with advanced cameras that include 32x zoom lenses, perfect for scouting an area or observing a scene safely from a distance, and a thermal camera. They can be flown easily by first responders to gain quick situational awareness of a scene and in some cases provide a tactical advantage.

Asif Gillani, Parrot regional director for Northern Europe, Middle East, Africa and India, thinks the use of drones is set to increase. “Portability is key, with drones small enough to be put into a vehicle boot, or even the footwell of a patrol car, to be quickly deployed in emergencies,” he says.

devices are helping overstretched and under-resourced forces to do more in less time.

Innovative live-streaming tech is enabling officers to share footage from the scene of an incident instantly, without needing to return to the station to download it. Companies such as Digital Barriers have come up with technology that works even when network conditions are poor. Digital Barriers is also behind the SmartVis Identifier, a live facial recognition system for body-worn law enforcement cameras.

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“Being able to ‘slice and dice’ information from different systems allows officers on the ground to access the data they need to do their jobs efficiently

“I believe we will soon see drones being used by all first-responder vehicles as part of their standard kit, due to the situational awareness that can be gained from a quick drone deployment.”

The quieter streets of lockdown created greater opportunities for criminal activity in the City of London. As the business area’s streets and buildings emptied almost completely, police needed to ensure the security of premises.

Using spatial technology, City of London Police were able to create a dashboard showing real-time data on where businesses were closed, tracking 23,890 business premises, where foot traffic was still happening, where police staff were available, as many had to self-isolate, and other data. Using these findings, senior officers could visualise where the most vulnerable areas were and better allocate resources.

Spatial technology covers everything from simple digital map provision through to advanced analytics, investigations, intelligence and briefings. “The basic foundation for the use of this technology is that everything happens somewhere,” says Adrian Friend, head of defence, national security and public safety,

with Esri UK, whose tech is being used by the City of London Police. “In fact, 80 per cent of all data has a location component.”

PC Dan Baker says: “Another area where this technology has been a massive help to us, is it also enables us to send out surveys to businesses by email, with the responses automatically being collated and displayed on the interactive map.

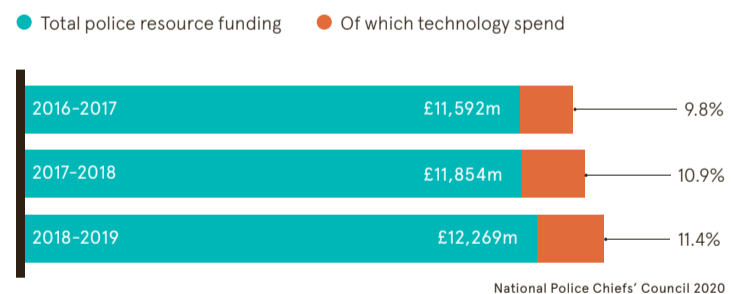
“One of the first surveys we conducted using the Esri solution showed that just 3 per cent of the City of London’s usual workforce was still working there. This was based on survey responses from businesses with a combined workforce of 123,000 people.”

Using this automated survey facility enables the police to communicate easily with human resources and facilities personnel, who may be working from home outside London, and gather a large amount of data very quickly.

Baker adds: “Geospatial technology has really been a game-changer for us and our Esri security dashboard helps us to provide a gold standard of policing in the City of London at this exceptional time, reduce crime and protect the public.”

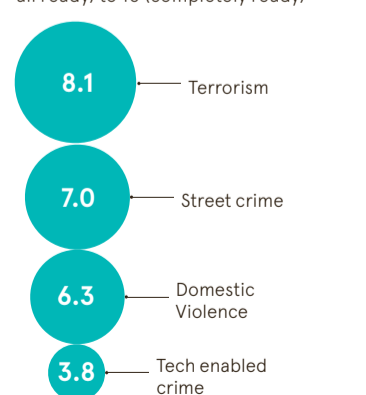
## POLICE TECH SPEND ON THE RISE

The percentage of funding allocated to tech continues to increase year on year.



## POLICE STILL NOT CONFIDENT ON CYBERCRIME

UK police rated their readiness towards crime challenges from 1 (not at all ready) to 10 (completely ready)



## HOW PREPARED ARE POLICE LEADERS FEELING?

Police chief officers rated their readiness towards leadership and management challenges from 1 (not at all ready) to 10 (completely ready)



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