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Cape Town's crime-fighters go hi-tech

From drones to audio technology, the city is making progress in keeping its residents safe

Greg Gordon

● A range of advanced technologies is being deployed by Cape Town to combat crime and gang violence. The city is well equipped to tackle the problem, having the budget (about R860m over three years) and the political will to do so – but it's not without challenges.

It's a grim landscape. The latest crime statistics show that nearly 1,200 people were killed in the Western Cape in the last three months of 2022.

A perfect storm of rising unemployment and interest rates, constant power cuts, crumbling national infrastructure, a crashing national economy, unengaged national government and stretched – sometimes compromised – police resources means it's an uphill battle for authorities.

But new technologies in crime hotspots may be turning the tide. The private sector, too, is using tech to keep properties, residents, assets and personnel safe.

JP Smith, Cape Town mayoral committee member for safety & security, says: "The city's rates base is not growing at the same pace as expenses and the population, so we have to do more with less and that's where technology helps."

The city is nearly five years into the approval process to become a licensed drone operator; that licence is expected to be issued by December. Commercial operators require a remote operating certificate

Eye in the sky: Citra MD Joel Baur with one of the drones used to patrol the CentralBlue development on the Cape Flats

(ROC) from the Civil Aviation Authority and use licensed pilots because they frequently operate in controlled airspace near airports.

"We have six pilots and a fleet of drones ready to go once our ROC is issued. In the meantime, we use a licensed private operator for anything from drug enforcement and traffic operations to disaster management and firefighting," says Smith.

Drones will be augmented by two-seat fixed-wing light aircraft that fly patrols over the city at night and have thermal camera rigs that relay images to a control room. These real-time images can be sent to officers on the ground. Smith says it's much cheaper than a helicopter and test runs have been used to track and arrest drag racers, prevent land invasions and monitor public disorder.

Businesses are also using

sophisticated tech to combat crime.

Joel Baur, MD of Citra, a company building an 1,800-unit affordable housing residential development at Blue Downs on the Cape Flats, says drones are an integral part of its security.

"The advantage of the drones is that they can cover huge areas, which is essential in large-scale projects. Some areas of the expansive open sites can be dangerous for guards to patrol. A drone does not put any of our staff at risk – they can monitor events and activities remotely before deciding how to respond safely and effectively, especially at night," he says.

Smith says shot-detection audio technology is used in gang hotspots like Hanover Park, Manenberg and Lavender Hill to pinpoint incidents. Sensors isolate and triangulate the location of gunshots be-

cause of the speed the sound travels at. This information is relayed to rapid response teams, including police, metro law enforcement, traffic police and medical first responders, which typically reach incident scenes within one to three minutes. He says it's not just about apprehending criminals, it's also about tending to gunshot victims.

Dashcam and bodycam systems are being rolled out among metro officers and vehicles. These record incidents as they happen – important for documenting crime incidents and the responses to them. That video data is also critical for evidence and prosecutorial processes.

The most important role technology will play in crime-fighting in Cape Town is the ability to gather data from several sources, collate it, examine it and then use it to pre-empt and prevent criminal activity.

Cape Town has a network of CCTV cameras installed, connected to a control room. This has resulted in 15,258 "detections" in the past year. But cable and infrastructure theft means sometimes these are left inoperable.

"We've had to get creative," says Smith. "Put the cameras on higher poles and power them using solar panels."

There's no quick fix for Cape Town's security challenges but technology is likely to help. According to Smith, in South Africa, the city has the only functioning computer-aided dispatch system that connects security personnel and vehicles with control rooms in real time.

"It's the heart of any effective crime prevention around the world. By putting more boots on the ground through various initiatives with police, neighbourhood watches and the private security industry – and investing in tech – we're able to increase arrests significantly." ✖