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# Is crowdsourcing the next step in the Drone Economy?

By Mervyn George

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The City of Cape Town recently publicly announced its intention to pilot a fleet of drones for crime prevention. This would make it the first municipality in South Africa to embrace drone technology to combat crime.



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As to be expected, a pioneering declaration like this divides the crowd. To the backers this is an exciting time, where citizens stand to benefit from advances in drone technology and the potential to leverage artificial intelligence that interprets a live onboard video feed to improve safety.

To the sceptics, concerns of privacy for citizens and references to a lack of policy and regulation are top-of-mind.

Each municipality, province or nation should determine its level of readiness across the range of use cases it perceives drones could add the most value.

But what happens once the green light has been granted?

Drone flight in South Africa is still regulated by the SA Civil Aviation Authority, which means there are restrictions in terms of where drones can be flown or operated. There are also licenses that are required for individuals and companies wishing to operate drones. These regulatory wrinkles will need to be ironed out if public and private sector entities wish to deploy drone technology to solve key challenges.

#### Affordability, tech advances driving adoption

What we can expect to see is that, as with other technologies exhibiting Moore's law, the performance of drone technology will continue to double year on year, while the cost reduces accordingly.

The onboard artificial intelligence technology, however, is improving at an exponential rate and the use cases for deploying drones in a municipal or corporate context will grow rapidly as pattern recognition, streaming analytics and other intelligent solutions become readily available.

For municipalities, as they progress toward the realisation of a smart, more connected, future cities strategy, investing in intelligent technologies is a critical step.

This, as part of a broader shift to run cities as Intelligent Enterprises, will drive greater standards of quality and consistency in service delivery while ensuring peace-of-mind amongst citizens.

The tech drives the increased adoption, the adoption drives the lower prices and the increased demand drives advances in the tech. It's a magic cycle.

Soon the industrial-grade drones that cost tens of thousands of Rand – sporting onboard cameras that cost as much - will be far more accessible to middle-class residents. With the surge in the number of drones in residence, gaining visibility of them will become a priority. The Swiss government is already promoting a central flight management system that allows visibility of drone service providers across a network.

To the individual drone owner, a government adopting this framework would spark concerns around institutional control over private drones, or the potential for this network to be hacked. On the positive side, it presents an opportunity for private drones to be hired by the minute for specific jobs that allow government and corporate entities to extend their fleet.

Imagine, in the crime reaction context, that the police services would be able to enlist your drone to support a pursuit in progress, that the control of the drone could be handed over to their central control room and that, once suspects have been apprehended, the onboard video captured could be leased out at a fee for the period needed during a trial. It's exciting - but also a little scary.

## Crowdsourced model takes flight

The possibilities we open through a connected ecosystem are shrouded by the anxiety caused by an invasion of personal privacy and lack of control over private property. Perhaps, then, if the model changed from residents buying drones to leasing them from the government it would calm the nerves, knowing that the device was not actually theirs in the first place.

Where else could crowdsourcing add value in the drone economy? How would we be reimbursed for the time that people, companies and government departments are using our drones? As payment, would a credit towards utility accounts be favoured, or perhaps it's as simple as earning credits to use the same government-owned drone for leisure purposes?

Would we even want to use it for leisure purposes, or rather acknowledge that these are for intended use only? Perhaps the needs for the fleet would change and we could simply rent out our roof space as a docking station to charge nearby drones in need of a top-up.

These are the possibilities in the drone economy. The kit, the platforms, the intelligent technologies, and the revenue models are all the easy bits. The difficulty comes in getting stakeholders to align and to agree on the purpose, on policy and on the protection of the citizens' interests.

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