

*Benefits of Technologies in the
Prevention of Copper theft and
Essential Infrastructure
related crimes*

Ntamo Technologies (Pty) Ltd



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Presented by:

Quentin Louw Pr Tech. Eng, SMSAIEE, MIEEE

CEO Ntamo Technologies (Pty) Ltd

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Harnessing Technology for
Revenue Protection

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www.sarpa.co.za



Questions to the audience



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- What are the actual financial losses suffered by the South African economy due to cable theft and essential infrastructure vandalism?
- Why is it not abating ?
- Is there a solution to mitigate and protect revenue?
- What is industry's contribution in the mitigation of Copper Theft and Essential infrastructure damages to improve Revenue streams?

Economic Impact



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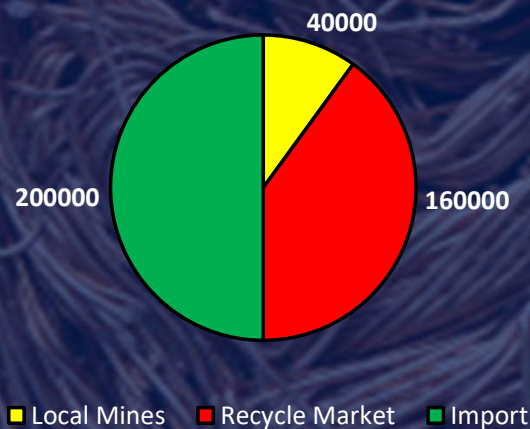
- SAPS reports that the cost of cable theft to the South African economy is anything between R5Bn and R7Bn annually.
- Global average loss factor of theft of cable compared to production loss is anything from 35-50 times the value of the cable.
- The South African Chamber of Commerce and Industry had this factor at 39 in 2015.
- Although it is expected that this factor has deteriorated, the factor of 39 is used in the following illustration: **39 x R5Bn = R195Bn (actual financial loss).**
- The loss is so large that it registers almost 5% of the country's GDP.

Contributing factors in the Non-abatement of Copper Theft



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South African Copper Demand
(400 000 tons/year)



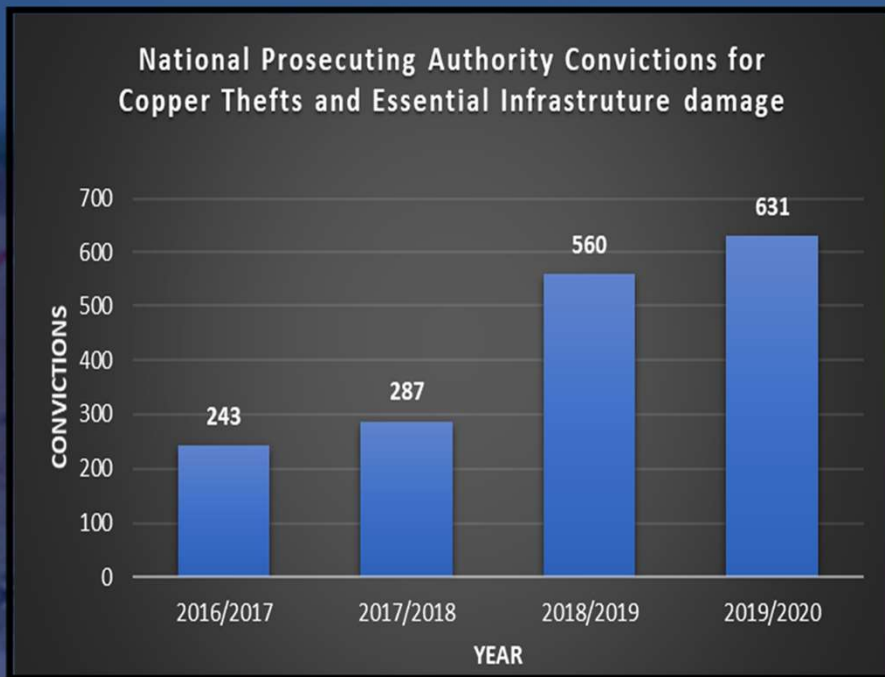
Local prices in January 2021 was anything from R90 to R103 per kilo according to ITAC

- Copper prices are high therefore fuelling criminal activity.
- China has starting roll-out production after COVID-19.
- COVID-19 has affected global copper mine productivity.
- ITAC limited exports for 2 months in 2020 to control local market.
- Parliamentary discussions around the PPS system (change to export duties).
- Increase of 10% in company liquidations.
- High unemployment figure > 30%

Prosecutions



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**NPA Benchmark for prosecutions
under the CMA = 74%**

Legislative Tools

- ✓ **Using Criminal Matters Amended Act 18 of 2015**
Accused charged under crime code 3200
- ✓ **Using the Second-hand Goods Act 6 of 2009**



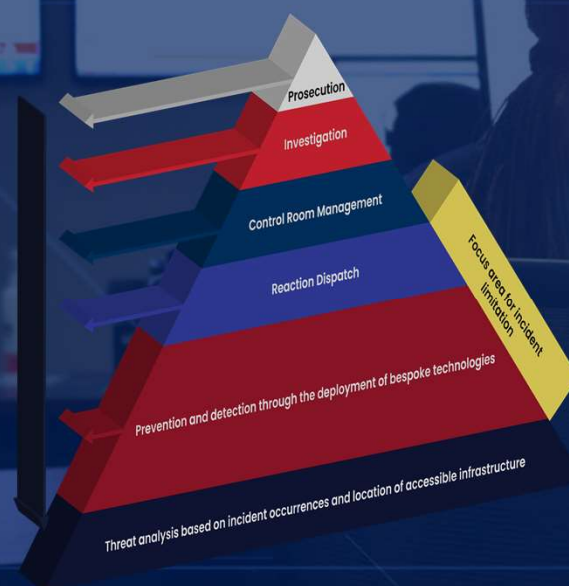
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Case Study Approach

Company Value Chain



Risk Matrix Model



Technology Deployments in Metro

- 75 Pepper Gas alarm systems in Sub-stations
- 29 Mini-Pepper Gas alarm Units deployed in Mini-substations and Kiosks
- 9 Transformer alarms
- 8 Remote surveillance camera sites
- 703 Early warning underground alarm systems

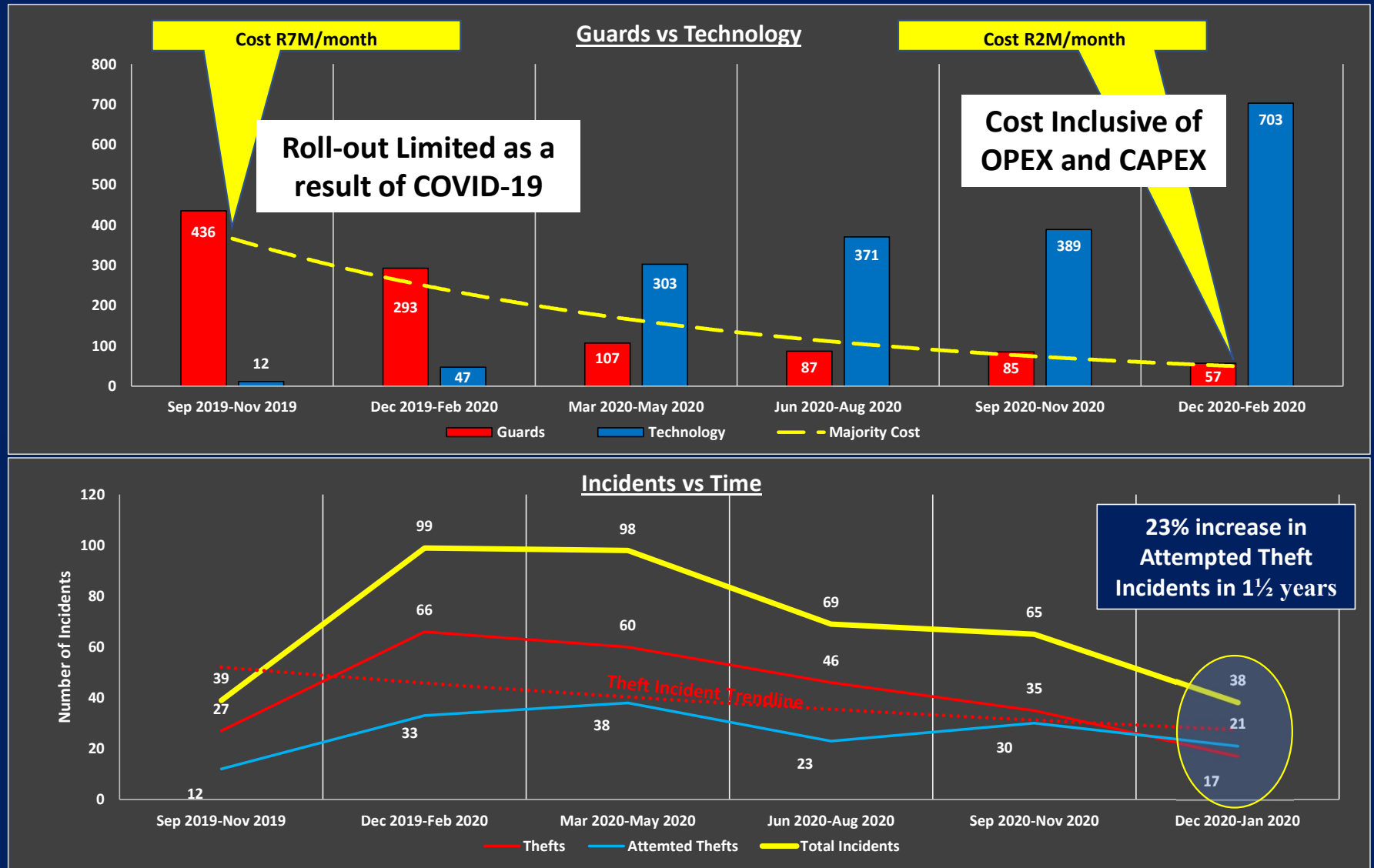
Results



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62% reduction of Incidents in 1½ years

74% reduction in Theft Incidents in 1½ years



Recommendations



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- All incidents must be reported under the CMA crime code 3200 so that the problem can be properly articulated.
- SOE's, Municipalities and Industry need to have a dedicated strategic plan to deal with Essential infrastructure crimes and not just consolidate it under the generic security budgets.
- The focus needs to be on the protection of current infrastructure as revenue is limited due to loadshedding, electricity theft, renewable energies and budget constraints especially under the COVID-19 pandemic.
- An augmented technology-centric approach needs to be employed in dealing with Essential infrastructure.

Recommendations



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- Deploying technologies will assist in audit mechanisms withing the MFMA and PFMA and prevent malfeasance in service related contracts.
- A specialised approach instead of a generic approach needs to be adopted.
- SARPA in association with the AMEU needs to take a more active part in the process of communicating prevention rather than the focus on arrests after incidents have occurred.
- SALGA-SARPA intervention cannot be over emphasised and prevention of theft and damage to essential infrastructure needs to be re-aligned with revenue protection goal outcomes.

Recommendations



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- Proposal for the establishment of a “*watchdog*” task team consisting of SALGA, SARPA, AMEU and Revenue protection specialist in entities that can represent industry and also be the voice at Government level so that the problem and its consequences can be articulated properly to attract the necessary support in dealing with these crimes.

Questions to the audience



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Conclusion



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- ✓ From the results there is a clear indication that the deployment of *bespoke* technologies significantly improves revenue streams.
- ✓ The employment of a specialised Risk Matrix Model is essential in the mitigation of the complete problem.
- ✓ The narrative of arrest and recoveries after the incident has occurred should be discontinued and emphasis needs to be placed on Preventative/Early Warning strategies as this now compliments new legislation.
- ✓ We need to seriously consider employing the recommendations if we want to ameliorate the current situation.

Thank you for your interest in this presentation

Contact us at:

+27 800 555 771

www.ntamotechnologies.co.za

sales@ntamotechnologies.co.za



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