



# INNOVATION SNAPSHOTS

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The year 2020 has been a challenge for all of us because of the COVID-19 pandemic. Nevertheless, the INTERPOL Innovation Centre was able to find a way to keep us all connected through our initiative of hosting INTERPOL Virtual Discussion Rooms (VDRs) and Virtual Training Rooms (VTRs). With more than 3,000 registrations for the VDRs and VTRs, we had a strong knowledge exchange which was further bolstered by the INTERPOL Global Knowledge Hub where we are able to continue the conversations and discussions on topics impacting law enforcement. We would like to express our sincerest thanks for the support you have given IC in 2020, and we are sure that we will continue to work together in making this world a safer place in 2021!



## COMBATting COUNTERTERRORISM ON THE DARKNET

From the series of expert meetings of the INTERPOL Working Group on Darknet and Cryptocurrencies, the Innovation Centre has identified growing risks from new technologies such as the darknet and cryptocurrencies.

We identified various criminal use cases such as:

- terrorist funding using cryptocurrencies
- counterfeit documents or fake identity documents traded on the darknet markets used for terrorist trafficking
- weapons equipped on the darknet for physical terrorist attacks
- cyberattack-as-a-service facilitated on the darknet market and forums for terrorist cyberattack on critical infrastructure
- anonymous and untraceable info sharing and archiving to stream terrorist attacks
- using a variety of encrypted communications derived from darknet forums among others.

In response, the Innovation Centre initiated Project CapaCT supported by the Ministry of Foreign Affairs of the Netherlands to develop Guidelines on Darknet and Cryptocurrencies for police practitioners.

The CapaCT guidelines include tips for preparing and conducting investigations, operational security, equipment and tools, and practical information on the seizure and confiscation of cryptocurrencies, digital and electronic evidence forensics related to the darknet and cryptocurrencies. (Accessible on the INTERPOL Global Knowledge Hub)



## MEET ELLA: NEW ZEALAND POLICE'S FIRST AI OFFICER



ELLA is New Zealand Police's digital assistant powered by AI.

ELLA assists Wellington Police in both providing information service and utilizing the data received for better interaction with the public in a timely manner.

Read about ELLA here:

[https://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=12307902](https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12307902)



## DID YOU KNOW



The number of connected devices in 2021 is estimated to hit 50 billion.

## PRIVACY CONCERNS BECOMING FRONT AND CENTER OF NEW TECHNOLOGY DEVELOPMENTS

by Robin How, currently interim Head of Digital Forensics for the Metropolitan Police, London, UK.

As evidential data extraction and its use in criminal justice matures, victims, witnesses, suspects and their advocates are becoming increasingly aware of the presence and availability of personal, private and sensitive data which is extracted, reviewed and disseminated to the various parties involved.

An often use-case cited surrounds the analysis of mobile phone extractions belonging to the complainant in rape cases.

It is essential that police agencies positively engage with privacy and victim advocates as well as the defense community and do not allow ethical and privacy considerations to be left as a last minute bolt-on just prior to implementation.

**What do you think is the biggest challenge in the area of data privacy?**

You can read the full article at [https://cooperation.scp.interpol.int/portal/g/spaces:digital\\_forensic\\_lab/digital\\_forensics/documents](https://cooperation.scp.interpol.int/portal/g/spaces:digital_forensic_lab/digital_forensics/documents)

Access the forum for discussions [here](#).



### DID YOU KNOW



3D printing can help create skull replicas for investigations, preventing the contamination of anatomical evidence.



## POLICING FUTURES

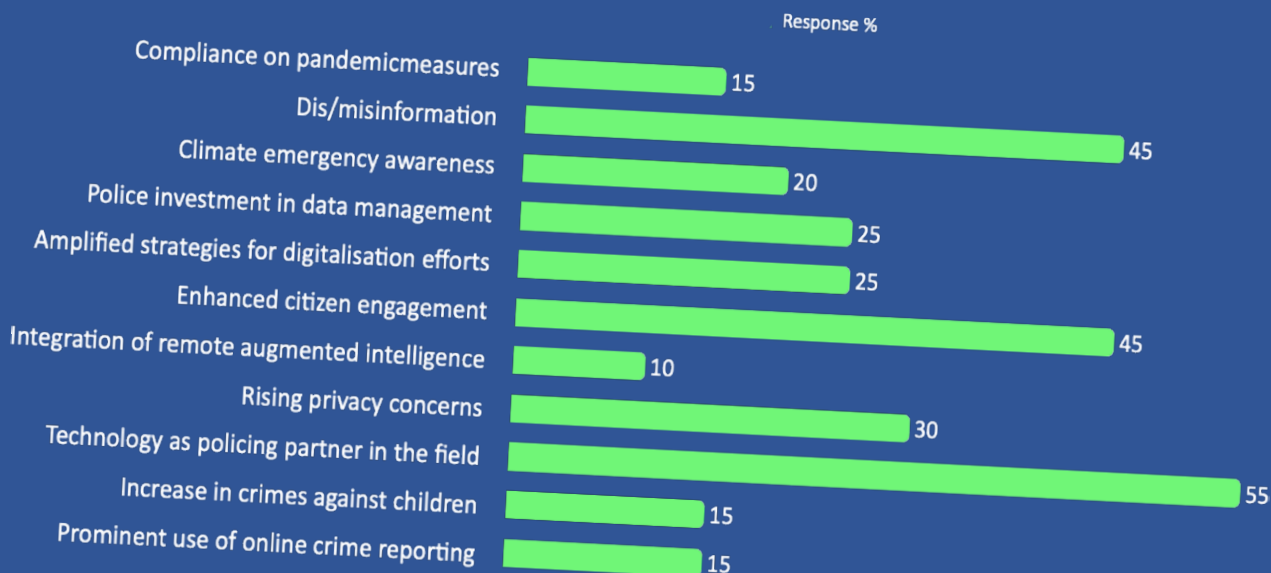
What emerging trends is law enforcement seeing?

The INTERPOL STRATalks Virtual Discussion Room (VDR) Futures Series launched its first trends survey results of which were discussed with law enforcement and during the session.

Technology as well as trust and legitimacy were amongst the biggest challenges in the next 10 years identified by law enforcement strategic advisors. Digitalization and cybercrime were amongst the top 2 future strategic priorities for member countries.

At the request of the participants, an annual plan with meetings every 6-8 weeks will be prepared for regular exchange on futures topics and to continue this horizon scan work. Further information on findings and the way forward can be found in the Outcome Report on the Horizon Scan Workspace on the Innovation Pavilion.

Which of these emerging trends, in your opinion, relate to or are evolving in your member country (please select the 3 most relevant):



## WHY SHOULD THE POLICE DO SOMETHING NOW ABOUT QUANTUM COMPUTING?

The Netherlands Police's newsletter on innovation and technology featured an article about quantum computing and how the technology promises calculations with unmatched speed and efficiency. The article highlighted that law enforcement agencies need to consider how they store data now and if they would need to do so in a different way as quantum computing might play a big role in how law enforcement officers will work in the future.

Law enforcement agencies should be proactive in assessing how emerging technologies may impact them and how they should adapt and evolve.

Findings shared during the Virtual Discussion Room (VDR) on "Quantum Computing: Impact on Law Enforcement" demonstrate that quantum computing is gradually becoming available and all sectors will face post-quantum decryption attacks on pre-quantum encryption. As quantum computing technology matures in the next decade, its use is likely to be democratized via QC-as-a-Service (QCaaS). The adoption of QCaaS for criminal purposes is a threat law enforcement should monitor.

The VDR on quantum computing was held on 19 November 2020 with more than 90 participants from 40 countries.

Read the full report for this VDR on the INTERPOL Global Knowledge Hub. Contact: [innovation@interpol.int](mailto:innovation@interpol.int)



## HOW TO ACCESS THE INTERPOL GLOBAL KNOWLEDGE HUB

- If you are a law enforcement officer, please contact your INTERPOL National Central Bureau (NCB) and refer to the INTERPOL Global Knowledge Hub Guidelines to request access to the platform.
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- If you are an external user (non-law enforcement) please contact the Innovation Centre by email ([innovation@interpol.int](mailto:innovation@interpol.int)).



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## DRONES

INTERPOL has seen a considerable increase in the use of drones over the last year and some countries are pushing the envelope of operational drones by seeking waivers for Beyond Visual Line of Sight (BVLOS) operations. Member countries like Singapore, United States of America, Canada and Indonesia are using BVLOS drones not only for law enforcement use but also for delivery drops and remote medical supplies deliveries.

BVLOS drone usage requires authority from the country aviation agency and must follow a strict framework to ensure that they:

- (1) Know the unmanned aircraft's location;
- (2) Determine the unmanned aircraft's attitude, altitude, and direction of flight;
- (3) Observe the airspace for other air traffic or hazards; and
- (4) Determine that the unmanned aircraft does not endanger the life or property of another.

(FAA Part 107 Waivers, Federal Aviation Agency, United States)

By using drones, it also allows a law enforcement agency to deploy resources more efficiently and also enhance police officer safety. Some operations that BVLOS drones can carry out in the future would be remote area security patrols, border protection, wide area surveys, a first responder to an emergency and remote surveillance. As drone technology develops, drones could be flown in areas which may be inaccessible or where situations are too risky for manual operations with the limitation on flight time being dependent on the drone battery. The challenge for law enforcement use of drones is the public perception, range and power constraints of drone batteries and local country regulations and clearances to operate.



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