# Interpol’s Singapore innovation centre leads global fight against organised crime with advanced technology



In the leafy suburb of Tanglin in Singapore, tucked near the British High Commission, the US embassy, and the Botanic Gardens, lies Interpol’s innovation centre—a global hub where law enforcement officials from nearly 200 countries collaborate to combat organised crime using cutting-edge technology. This facility, a pivotal part of Interpol’s operations, represents the forefront in the ongoing technological arms race between police forces and increasingly sophisticated criminal networks.

Established as part of Interpol's extensive complex in Singapore—which stands as the organisation’s second largest office outside its Lyon, France headquarters—the innovation centre has served for over a decade as a focal point for forensic science and intelligence gathering. The site also hosts one of Interpol’s three global command and co-ordination centres, operating round the clock to monitor international criminal activity and facilitate cross-border arrests. In 2024 alone, this network helped secure the capture of 215 fugitives. One notable recent success involved the arrest in Romania of Mohamed Amra, known as “The Fly,” who was designated France’s public enemy number one following a deadly escape in May.

Interpol’s Singapore office concentrates on a wide spectrum of crimes, including cybercrime, digital piracy, and the counterfeit pharmaceutical trade. The increasing infusion of artificial intelligence into criminal methodologies has significantly transformed the landscape, prompting the police to adapt rapidly. “The changes in criminality we have seen over the last two to three years because of advances in technology are bigger than at any point in my career,” said Fabio Bruno, head of Interpol’s digital forensics team, reflecting on the unprecedented pace of change.

Bruno, along with his team members Paulo Noronha from Brazil and Abdulla al-Jalahma from Bahrain, conducted a detailed tour of the digital forensics lab, showcasing an array of specialised equipment. The lab is geared towards extracting and analyzing data from digital devices, including mobile phones, which have become paramount in criminal investigations. Devices can reveal a trove of evidence, from communications and location history to encrypted message data, often retrieved even from broken or discarded handsets through the use of precision chip readers and clean room environments to prevent contamination.

Among the technology on display are car infotainment system readers that can extract data from vehicles, sometimes exposing messages or calls if a suspect’s phone has been connected to the vehicle. This emerging field of vehicle digital forensics is rapidly growing as modern cars store extensive data on movements and usage.

In a further advance aimed at preserving the integrity of investigations, the centre utilises 3D laser scanners to create highly accurate, virtual recreations of crime scenes. This technology allows for remote examination and detailed analysis of physical evidence such as bullet trajectories and bloodstain patterns, minimising the risk of contamination by investigators physically present at actual scenes.

Interpol, originally founded in 1923 as the International Criminal Police Commission, now comprises 196 member countries, including major powers such as the US, China, and Russia, with only a few exceptions like North Korea and Taiwan. The organisation handles approximately 10,000 red notices annually—international alerts to locate wanted individuals—alongside a variety of other notices for missing persons, unidentified bodies, and seized criminal assets.

A key mission of Interpol is facilitating information sharing among law enforcement agencies worldwide. The organisation maintains 19 databases housing over 225 million police records covering topics from stolen cultural heritage and maritime piracy to firearms and travel documents. These are accessed billions of times per year as part of efforts to coordinate investigations and disrupt criminal activity.

Among Interpol’s specialised teams working from Singapore is the cybercrime unit, focusing on emerging digital threats like deepfake scams, sextortion, and complex phishing operations enhanced by AI technologies. “AI has completely changed the criminal’s business model,” explained Huanzhang Fu, who leads the AI lab and is a former Chinese policeman. The unit continually monitors millions of attempted cyberattacks daily, targeting key sectors including education, telecommunications, and government agencies.

Complementing digital policing innovations, Interpol employs robotic technology in physical law enforcement environments. The robotic "K9" dogs, equipped with sensors capable of detecting explosives, drugs, and hazardous materials, are used to assess dangerous scenes before human officers enter. These robots can perform a range of tasks including climbing stairs and carrying communication devices, enhancing operational safety and efficiency.

The battle against crime extends beneath the waves as well, with Interpol deploying underwater drones to tackle “parasite smuggling.” This method involves clandestine attachment of drug or weapon containers to cargo ships by divers, a tactic frequently used to transport contraband from regions like Brazil to Europe and Asia. Interpol’s drones monitor major ports to intercept such illegal activities.

Another growing concern addressed at the innovation centre is the rise of 3D-printed firearms, or "ghost guns," which lack traditional serial numbers and thus evade standard tracing methods. These plastic weapons, easier to produce than ever due to advances in 3D printing, pose significant challenges for law enforcement. Researchers at the centre manufacture replicated ghost guns for study and work to identify unique printing signatures to track their origin. Despite these efforts, Fabio Bruno acknowledged the ongoing cycle of adaptation by criminals, stating, “They are clearly learning from us just like we are studying them.”

Interpol’s Singapore innovation centre represents a multifaceted approach to combating modern crime, merging technological vigilance with international collaboration to address a wide array of criminal threats worldwide. As advances in AI and digital technology reshape both criminal methods and policing tactics, the organisation remains at the forefront of this evolving global contest.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

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