INTERPOL
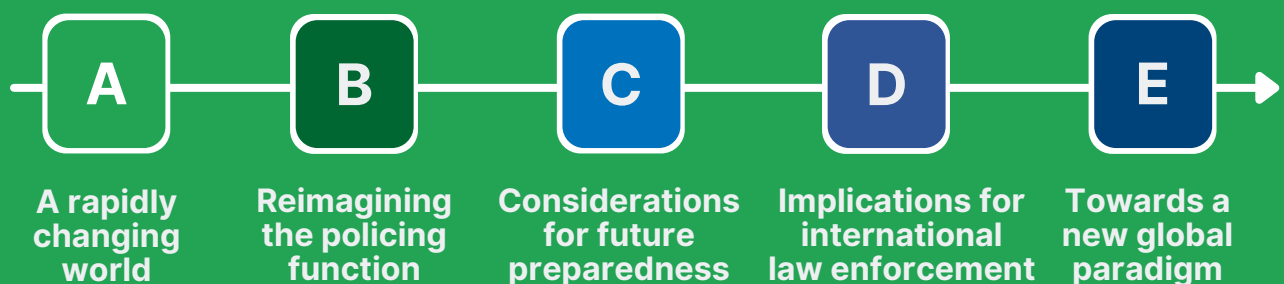
Scanning for the Future(s) of Policing: First steps towards a new global paradigm

An INTERPOL Innovation Centre Working Paper

[Version 1.0]

MARCH 2022

A	B	C	D	E
A rapidly changing world	Reimagining the policing function	Considerations for future preparedness	Implications for international law enforcement	Towards a new global paradigm

Introduction

Over the last decade, our daily lives have changed dramatically. Globally, digitalization and related technological advances are transforming every aspect of modern societies, from the way we interact with others to how we make sense of the world around us. In this rapidly evolving world, what will the future(s) of policing look like in 10 years? In 100 years?

Background and Aim of the Working Paper

With INTERPOL's hundredth anniversary approaching, this question is particularly timely. This Working Paper marks **the first step in the INTERPOL Innovation Centre's year-long exploration into the future of policing**, which will feature contributions from across the Organization's 195 member countries, including interviews, dedicated Virtual Rooms and in-person conferences (cf. *Roadmap 2022-2023* on p. 3). As such, its **purpose is to scan for and identify important topics**, to provide a starting point for the many conversations that will take place in the build-up to INTERPOL's Centennial Celebrations in 2023.

Structure of the Working Paper

The Working Paper is structured in five sections:
- **Section A** examines how global future trends are impacting the operational context of policing and distills "new realities" for law enforcement.
- **Section B** discusses the implications for the policing function, its mission, roles, duties and capabilities.
- In **Section C**, the paper considers what transformations in organizational models, workforce and equipment may be required to face a changing world.
- **Section D** then turns to the implications for international law enforcement cooperation of these many changes.
- Finally, **Section E** recaps and maps the different dimensions of the future of policing. It also offers several strategic directions as a prelude to a new paradigm.

A Work in Progress

This Working Paper should very much be considered as a work in progress. It will be updated frequently after the various steps described in the Roadmap below. The current version has been produced using the INTERPOL Global Horizon Scanning process and engagements with the INTERPOL STRATalks Futures Network. **We strongly encourage INTERPOL member countries and relevant stakeholders to challenge or add to these findings**, by contacting the INTERPOL Innovation Centre at FFL@interpol.int

Roadmap 2022-2023

The INTERPOL Innovation Centre has planned a year-long exploration of the Futures of Policing, which will be used to augment this working paper. The Roadmap for 2022-2023 represented below highlights key milestones in achieving the global INTERPOL paradigm. It should not be held as an exact chronological sequence.

If you would like to join in these activities, please contact FFL@interpol.int

STEP 1
Feedback from the **INTERPOL STRATalks Futures Network** on the Working Paper

STEP 2
Consultation at the 2nd **INTERPOL Innovation and Technology Advisory Group**

STEP 3
Inputs from the **INTERPOL Young Global Police Leaders**

STEP 4
Interviews with chiefs of police, business leaders and academia

STEP 5
Exploratory **Virtual Rooms** on specific Future(s) of Policing topics

STEP 6
Discussion at the **STRATalks Annual event** and the **2022 General Assembly**

STEP 7
Presentation of the findings during the **INTERPOL Centennial Celebrations** in 2023
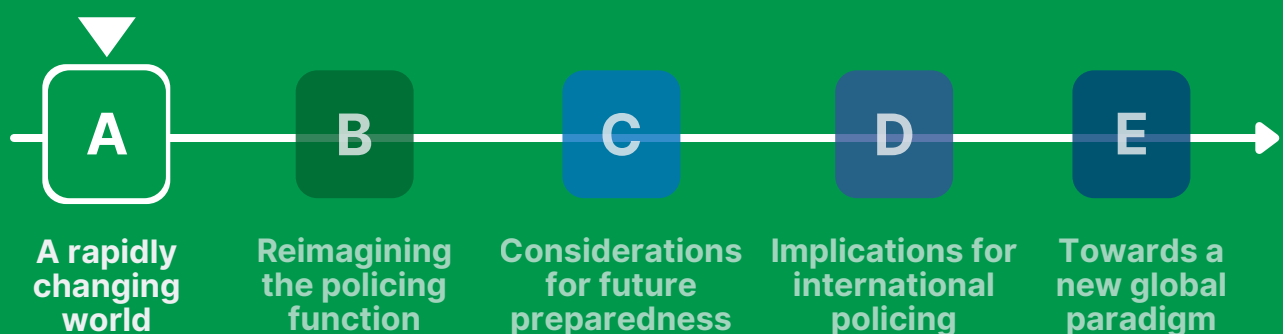
TABLE OF CONTENTS

A RAPIDLY CHANGING WORLD

A

Global trends are transforming the operational context of policing. Drawing on the INTERPOL Global Horizon Scanning process, this section discusses significant drivers of change, like technological convergence and climate change. Taken together, these trends are producing 'new realities' for policing: in the coming decades, law enforcement will face a world where the physical and the digital are increasingly enmeshed, crime is increasingly complex and transnational, and social expectations are evolving rapidly.

I Global trends (re)shaping the operational context of policing

II New realities of the future policing landscape

A — A rapidly changing world

B — Reimagining the policing function

C — Considerations for future preparedness

D — Implications for international policing

E — Towards a new global paradigm

I. Global trends (re)shaping the operational context of policing.

How will the world transform in the coming decades? Through the INTERPOL Global Horizon Scanning process, including inputs from INTERPOL STRATalks Futures Network, reports from other police organizations, businesses and knowledge institutions (cf Appendix 1), as well as desk research, the IC has so far identified nine *global* interconnected trends which can be expected to impact the operational environment of law enforcement over the short, medium and long term.

TECHNOLOGICAL ACCELERATION & CONVERGENCE

1

The next decades will likely be characterized by the acceleration of digitalization, greater (hyper)connectivity and an exponential growth in the volumes of data.[1] The convergence of different domains like AI, biotechnology and smart materials is set to increasingly blur the boundaries between the physical, digital and biological spheres, creating new threats, challenges and opportunities for policing.[2]

URBANIZATION & SMART CITIES

2

According to UN estimates, 68% of the world population could be living in urban areas by 2050.[3] Meanwhile, the collision of technological and urbanization trends could drive the emergence of more and more "smart cities." These are likely to bring greater cyber vulnerabilities as well as novel sources of evidence and tools empowering the suitably prepared investigators.[4]

SOCIAL & DEMOGRAPHIC CHANGES

3

At the global level international migrations can be expected to persist, notably under the influence of climate change.[5] In addition, the next decade will be shaped by the maturation of the so-called Generation Z.[6] Born entirely in the digital age and featuring high rates of smartphone social media penetration, this generation carries different norms and expectations with impact on policing, notable recruitment.[7]

AN EVOLVING INFORMATION AND TRUST LANDSCAPE

4

Around the world, many governments, businesses and media are facing a growing trust deficit and social polarization. Technology is a significant factor in this shifting trust landscape, notably through the rise of synthetic media and digitally enabled mis- and disinformation. Indirectly, technological advances are also fueling greater privacy concerns. As a result of these and other changes, retaining the trust of communities will emerge as one of the key policing challenges of the 21st century.[8]

CLIMATE CHANGE & RESOURCE SCARCITY

5

Over the next decades the physical effects of climate change are only expected to intensify. More frequent and severe extreme weather events are likely to put a strain on public safety capabilities and resources.[9] Increasing public concerns over these risks could also lead to the emergence of new crimes (e.g. ecocide), as well as calls for police organizations to be an integral part of the green transition.[10]

CHANGING TIDES OF GLOBALIZATION?

6

Growing income inequality and nationalist sentiments have fueled a backlash against globalization, evidenced for instance in the escalation in trade disputes.[11] In the coming decades, populism and nationalism are likely to remain significant countervailing forces. In the long run this could have repercussions for existing international regimes, including policing cooperation, with more reliance on regional, bilateral or informal arrangements.[12]

DIGITALIZATION OF FINANCE

7

Economic and financial processes are increasingly based on digital technologies, with digital currencies expected to gain wider acceptance over the next decades.[13] This trend will generate new challenges for law enforcement, including new techniques to mask flows and even higher volumes of online scams, and may require new holistic approaches to financial crime.

CHANGING MODES OF PRODUCTION: TOWARDS 4IR?

8

Emerging technology breakthroughs may be driving a fourth industrial revolution (4IR).[14] The 4IR would disrupt many aspects of modern life, including means of production and distribution. For instance advances in novel materials and smart manufacturing could reshape the production of everything, restructure value chains and alter the composition of trade. These developments could be exploited by traffickers and terrorists, but also offer new possibilities.

THE GROWING INFLUENCE OF NON-STATE ACTORS

9

Non-state actors like technology firms will continue to be key drivers in building the infrastructure of the future, including in the realm of safety and crime prevention.[15] As a result, law enforcement will need to devise national and perhaps even global strategies to engage with these proliferating non-state actors, both offline and online.[16]

Are any major global trends missing? We want to know!

II. New Realities of the Future Policing Landscape

Taken together, the global trends identified above are shifting the very ground below law enforcement, producing "new realities" for policing's operating environment. The realities are interrelated sets of challenges and opportunities to which law enforcement will need to adapt. They are summarized below and described in more detail in the following pages.

1 A BRAVE, NEW DIGITAL WORLD

Digitalization and related advances will create new challenges and opportunities for policing as a whole, from how (and who) prevents, investigates and combats crime, to how law enforcement interacts with their communities.

2 AN EVOLVING CRIMINAL LANDSCAPE

The criminal landscape will continue to evolve, becoming **more sophisticated, more transnational, and more complex** for investigators, due to technological advances, new social expectations, climate change and other transformations.

3 A STRONGER IMPERATIVE FOR COLLABORATION

Collaborating across bureaucratic, jurisdictional and disciplinary boundaries, including with other security institutions and private entities, will be increasingly key to solve complex, transnational crimes.

4 CHANGING DYNAMICS OF TRUST

While the specifics will vary by region, **changing social expectations, greater public scrutiny** and **a more challenging trust landscape** are likely to be part of the new reality of future policing in the coming decades.

5 THE GROWING PACE OF INNOVATION

Law enforcement should prepare for constant innovation across all sectors to continue to transform its operating environment, generating both new criminal threats and potential investigative tools.

6 THE EXPANDING FRONTLINES OF POLICING

Where will the rest of the 21st century take policing? From the streets to **online and virtual environments** like the 'metaverse'? And who will police the **skies or space**?

1 A BRAVE, NEW DIGITAL WORLD

As digitalization continues to accelerate and deepen, most crimes will leave a digital footprint, **making data and e-evidence one of policing's most powerful assets.**

- As communities continues to embrace digitalization in all spheres of life, from work to social interactions and even for public services, **making the virtual world a safer place will become an important priority.**[17]
- Fueled by the expansion of the Internet of Things, the exploding volume and breadth of data offers **novel opportunities for investigators and police organizations as whole**.

Implications for law enforcement:
Harnessing the opportunities of digitalization will require new digital investigative and data management capabilities, widespread digital transformation, new skills, expertise and innovative AI-enhanced tools.[18]

2 AN EVOLVING CRIMINAL LANDSCAPE

The criminal landscape will continue to evolve, becoming **more sophisticated, more transnational, and more complex**.

- **Digital technologies** are driving the exponential growth of cybercrime and crime-as-a-service models, transforming the *modus operandi* of crime and enabling perpetrators to act across jurisdictions.[19]
- Beyond technological advances, police around the world have also reported being **called to intervene in a growing number of complex situations,** e.g. gender-based crimes, environmental destruction and online mis/disinformation. [20]

Implications for law enforcement:
To meet the growing sophistication, complexity and transnationalization of crime, policing is likely to need new policies, procedures and organizational structures.[21] For example, criminal statistics will have to be updated to adequately capture cybercrime, investigatory processes upgraded to facilitate work across multiple jurisdictions and organizational structures reviewed to enable more transversal approaches.

3 A STRONGER IMPERATIVE FOR COLLABORATION

Collaborating across bureaucratic, jurisdictional and disciplinary boundaries will be increasingly key to solve complex, transnational crimes. This will include working with other police organizations, intelligence agencies, customs, armed forces, but also policy makers, technological firms and other private entities.

Implications for law enforcement:
To enable more effective and timely cooperation, police organizations may need to deploy new models and processes. **Existing, hierarchical organizational structures may not be the best suited for collaboration** across borders, sectors and agencies, compared to more networked forms of policing. Likewise, International policing cooperation may have to evolve and become more connected, agile and lean to meet the greater imperative for collaboration.

4

CHANGING DYNAMICS OF TRUST

While the specifics will vary by region, **changing social expectations and greater public scrutiny** a**re likely to be part of the new reality of future policing** in the coming decades.

- Existing social fault lines and polarization could be exacerbated by technological advances**.** As increased (**hyper**)**connectivity creates unexpected ripple effects across borders**,[22] mis/disinformation, synthetic media, and algorithmically-powered "echo chambers" could further undermine trust in public institutions.
- Faced with calls for higher levels of **accessibility, transparency and accountability**, as well as evolving social expectations and demands (e.g. becoming "greener"), new **technologies could offer opportunities for positive interaction**s **with communities.**

Implications for law enforcement:
Retaining the public's trust online and offline will be key for future policing, with far-reaching implications for investigations, recruitment, procurement and budget. In the digital era citizen engagement strategies may have to adjust to follow communities online, while offline diverse recruiting strategies and continuous training could be key to meet rapidly evolving social norms and expectations. Additional stress due to greater public scrutiny would also require a strong emphasis on the wellbeing and mental health of officers.

5

THE GROWING PACE OF INNOVATION

Constant innovation across all sectors is changing policing's environment on a nearly daily basis, creating both new criminal opportunities and potential investigative tools.

- Harnessing innovative solutions will be a key strategic challenge for policing but will be **complicated by complex procurement processes, legislative challenges and community concerns over surveillance**.
- Even when technologies are invented to prevent crime, criminals adapt. In the coming decades, this could result in a growing '**arms race**' with criminal actors.

Implications for law enforcement:
Monitoring, understanding and harnessing the plethora of innovations impacting communities will require adequate funding, attracting the right skills, and providing minimum basic training on technology to all officers. Other important considerations include shifting from a reactive to proactive models, better integrating foresight and innovation teams , as well as enhancing procurement and other corporate capabilities.

6

THE EXPANDING FRONT LINES OF POLICING

Where will the rest of the 21st century take policing?

- In many parts of the world, changing social norms and expectations, could increasingly **push the front lines of policing from the public to the private realm.**
- Technological advances could also **expand the front lines of policing from offline to online.** While still in its infancy, the concept of the **'metaverse'** (also known as the 'omniverse') could push existing boundaries even further.[23]
- Even the sky may not be the limit for policing, as the widespread use of **drones and the start of private space exploration** might herald new responsibilities for law enforcement.

Implications for law enforcement:
Over the coming decades law enforcement will likely be called to act in increasingly diverse locations and situations, stretching existing capabilities. However, none of the above expansions should be taken for granted, and could be met with public backlash or competition from non-state actors.

A

Join our discussion on
A RAPIDLY CHANGING WORLD

What is your opinion?

A — How would you rate the global trends in the working paper? Are there any missing?

B — From the perspective of your organization, which trend do you think will have the greatest impact on the future policing environment in the next 5, 10 and 25 years? Why?

C — Do you recognize the "new realities" identified? Which ones feel more important? Are there any missing?

D — How do you look at the impact of digitalization and emerging technologies on law enforcement? Which emerging technology do you think will be the most disruptive?

E — What do you think will be the new front lines of policing, and when?

Please let us know your thoughts by emailing the INTERPOL Innovation Centre at **FFL@interpol.int**

Alternatively, you can share your insights using the following survey: **https://www.research.net/r/C9HXZRL**
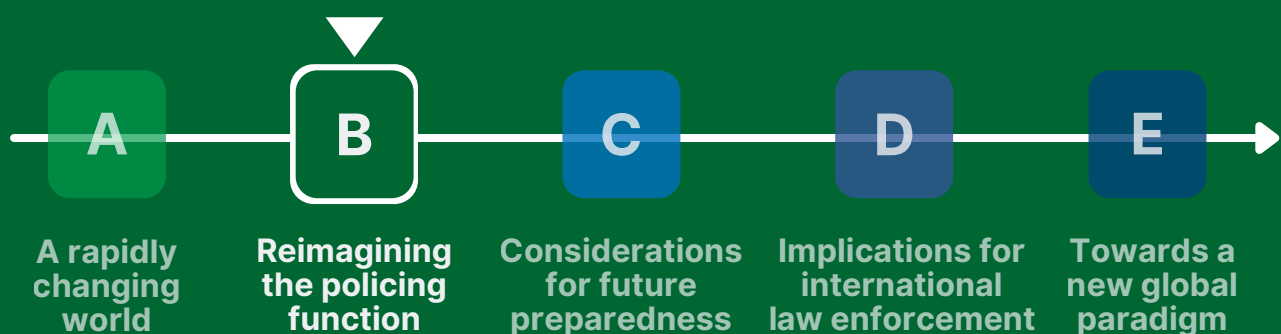
REIMAGINING THE POLICING FUNCTION

B

The new realities identified in Section A prompt the need to reimagine the policing function, its mission, roles, and capabilities. Section B explores how policing might evolve. For example, it asks what new duties will be performed by law enforcement, and which ones will disappear or be performed by different actors. It also considers how the 'new realities' could impact traditional policing capabilities like crime prevention or investigations.

I Rethinking policing: same mission, different scope?

II New duties and capabilities for a changing world

A — B — C — D — E

A rapidly changing world

Reimagining the policing function

Considerations for future preparedness

Implications for international law enforcement

Towards a new global paradigm

I. Rethinking policing: same mission, different scope?

The new realities identified in Section A have widespread implications. Taken together, **they prompt a need to re-examine the policing function**. At a broad level, the mission of the police will likely continue to be to protect life and property, notably by preventing, deterring and detecting crime. However, in a digital world, even basic concepts like "property" may need to evolve or broaden, from tangible to more intangible. More generally, **the roles and duties of policing will have to adapt to keep pace with the broader social, technological and economic developments** shaping communities.

As noted previously, in recent years **police forces around the world have been assigned an ever evolving range of tasks** - sometimes on an ad hoc basis, without coherent planning of what the overriding objectives or priorities of the policing should be. On the other hand, traditional policing responsibilities could be fundamentally altered or even disappear. For example, if current trends in the mobility industry continue and fully automated vehicles become more widespread, policing duties related to traffic and traffic management will likely need to be updated in light of new patterns. And if fully automated vehicles no longer violate traffic rules, traffic enforcement role may be drastically reduced. Finally, **a wide range of non-police actors are now involved or even leading** in fulfilling traditional and new policing duties, resulting in a more complex public security ecosystem (cf. **Questionnaire** on the next page).

Narrow crime focus or public safety and vulnerabilities?

A key theme will be whether future policing should pursue a narrow crime focus or a broader goal around public safety and vulnerability issues. If priorities are expanded to broader vulnerabilities, law enforcement could require new structures to link up with the larger crime prevention and harm reduction resources in other public services, business and communities.[24] To some extent these choices extend beyond police organizations and will be determined by communities and governments. However they matter, because different objectives will require different sets of capabilities, skills and partnerships.

Who do you think should deal with these tasks in the future?

Please share your thoughts by completing the online survey using the QR code or following link: **https://www.research.net/r/VDWF7KQ**

	Law enforcement	Municipalities	Other public agencies	Private sector entities	Others (please specify)
Traffic management	☐	☐	☐	☐	☐
Control of firearms	☐	☐	☐	☐	☐
Gender-based crimes	☐	☐	☐	☐	☐
ID checks at borders	☐	☐	☐	☐	☐
E-commerce scams	☐	☐	☐	☐	☐
Online disinformation	☐	☐	☐	☐	☐
Street patrolling	☐	☐	☐	☐	☐
Cyber fraud	☐	☐	☐	☐	☐
Drone use	☐	☐	☐	☐	☐
Responding to homelessness	☐	☐	☐	☐	☐
Mental health issues	☐	☐	☐	☐	☐
Lost or found property	☐	☐	☐	☐	☐
'Metaverse' crimes	☐	☐	☐	☐	☐
Crimes in space	☐	☐	☐	☐	☐
?	☐	☐	☐	☐	☐

II. New duties and capabilities for a changing world

The emerging new realities of policing may also impact the core policing capabilities in the coming decades. Some potential major transformations are summarized below and explored in greater detail in the following pages:

1 PREDICTIVE POLICING: TREND OR HYPE?

Will - and should - law enforcement seek to acquire greater predictive policing capabilities?

2 CRIME PREVENTION: MORE VIRTUAL AND REMOTE?

How will digitalization impact crime prevention and related duties like patrolling, surveillance and the collection of criminal intelligence?

3 INVESTIGATIONS AND FORENSICS IN THE DIGITAL AGE

What new investigation and forensics capabilities may law enforcement acquire to combat crime in the digital age?

4 HARNESSING SCIENTIFIC ADVANCES FOR FUTURE FORENSICS

Beyond the digital realm, what other scientific advances may revolutionize the work of investigators?

5 GROWING NATURAL CALAMITIES AND EMERGENCY DUTIES

How will law enforcement's role evolve faced with more frequent, climate-change induced natural disasters and calamities?

6 NEW CITIZEN RELATIONS: COMMUNITY POLICING 2.0?

How might community contact and crime reporting look like in an increasingly digitalized world?

1

PREDICTIVE POLICING: TREND OR HYPE?

Frequently mentioned in relation to the future of policing, **predictive policing** remains a hotly contested topic. Could it increasingly replace crime prevention and enforcement?

- Predictive policing relies on **big data and algorithms to try to predict** either crime, offenders, perpetrators' identities or the victims of crime. [25]
- Large sets of data, including historical crime data, are analyzed using advanced computer systems to help decide where to deploy patrols or to identify individuals allegedly more likely to commit, reoffend or be a victim of crime.
- Advocates argue that predictive policing can prevent crime more effectively than traditional police methods. However, **existing initiatives have been met with criticism** due to their lack of transparency and biased training data, raising issues of fairness.[26]

💡 How can law enforcement ensure responsible use of artificial intelligence and big data, and avoid causing a public backlash against such innovations?

2

CRIME PREVENTION: MORE VIRTUAL AND REMOTE?

In the coming decades, **crime prevention**, which includes duties like patrolling, surveillance and collecting criminal intelligence, is likely to be transformed by digitalization.

- Physical patrols could become increasingly complemented or even replaced **by distributed sensing and remote surveillance capabilities**, which involve harnessing technological advances in domains like CCTV, facial recognition, UAVs, and the IoT, police to collect a range of useful data.[27]
- Developing distributed sensing capabilities can empower officers in the field and optimize the allocation of manpower. For example, in some smart cities, sensors now allow police to **"listen for gunshots"** and deploy officers to the scene more quickly.[28]
- However, the collection and exploitation of this growing volume of data is **likely to generate public debates due to concerns over privacy.**

💡 In the cyber realm, high volume, lower severity crimes like online scams and fraud might require greater emphasis on prevention than enforcement. What kind of crime prevention activities could the police conduct in the digital sphere?

3

INVESTIGATIONS AND FORENSICS IN THE DIGITAL AGE

A core challenge for investigations will be to adapt to the digital age. With the exponential growth in the ways that people use digital devices and services, **acquiring digital investigative and forensics capabilities** will be an increasingly key priority.

- Most crimes now leave a digital trace. Investigators will need to acquire tools and expertise to conduct investigations online, for instance using social media. **AI-based solutions could be a useful tool** to quickly gain insights from huge volumes of information.[29]
- Police forensics could be asked to recover digital evidence from a growing number of devices (laptops, smartphones, cars, home appliances, the Cloud, etc.) **Advances in cryptography and deep fake technology**, as well as public concerns over surveillance and associated legislative changes, could pose growing challenges.[30]
- Technological advances in the quality of **facial recognition, portable biometrics scanners** and **3D imaging** also offer new opportunities for officers at the crime scene.[31]

💡 How can law enforcement ensure that digital forensics experts are up to date with the latest technological tools and threats?

4

HARNESSING SCIENTIFIC ADVANCES FOR FUTURE FORENSICS

Beyond digital forensics, future investigators could in the future also benefit from scientific advances in the domain of **molecular photofitting** and **geotagging by isotopic detection**.

- **Molecular photofitting**, also known as **DNA phenotyping** could enable forensics experts to discover the physical appearance of an individual based on the DNA left at a crime scene - a kind of "biologic witness." [32]
- Using **microRNAs** could enable better fluid analysis, helping for example to determine whether the mystery liquid at a crime scene is menstrual blood or blood from a wound. [33]
- Through **isotopic detection**, forensic experts could gain a new means of geo-tagging, i.e. identifying the geographic provenance of drugs, wildlife or even human parts. [34]

What other scientific advances might revolutionize the field of forensics? How can police organizations monitor developments across other disciplines? And how will the global law enforcement community respond to ethical dilemmas linked to advances such as genealogic forensics?

5

GROWING NATURAL CALAMITIES AND EMERGENCY DUTIES?

Due to the intensifying impact of climate change, in the coming decades law enforcement faces the prospect of **more frequent natural disasters and crises**.

- As a result, policing can be expected to **perform a growing range of duties related to natural calamities.** [35]
- **Establishing clearly defined strategies, frameworks and roles** predetermining police's response to this threat will be key to prepare for this challenging role. [36]

If police were to become more and more frequently involved in responding to natural disasters and other emergencies, what new knowledge should officers be equipped with? And how might organizations ensure continuity with other essential duties?

6

NEW CITIZEN RELATIONS: COMMUNITY POLICING 2.0

In a digital world, it could be increasingly important for police to expand their online community contact and crime reporting platforms.

- **Building a strong relationship with communities,** such as through dedicated community teams, has long been a key success factor for effective policing. Now **technological advances are creating new opportunities for positive interactions.**
- **Multi-channel communication, including app-based crime reporting,** can enhance citizen participation and experience while providing real time awareness to police and enabling them to be more responsive to the needs of their constituents. [37]
- Digital engagement can also be **augmented by automated chatbots and AI solutions** to provide faster, more tailored services to communities, while lessening the stress on limited resources – **both online and offline,** as with Dubai's "Smart Police Stations." [38]
- Meanwhile, **AI-enhanced analytics** could further reduce demand on control rooms and contact centers, for example by indicating if the person calling is a serial caller, particularly vulnerable or wanted in connection with another offence elsewhere

Could the 21st century witness the appearance of fully virtual police stations - on the net or in the so-called metaverse? [39] What might be the drawbacks of a mostly virtual police?

Better corporate capabilities will be key enablers to support policing in its new duties

While this section has so far focused on policing capabilities, to support these transformations policing will also need to enhance other, non-policing capabilities. For example **better data management and analytical capabilities** will be essential to quickly and efficiently harness immense volumes of data to support investigations and optimize routine processes.[40] Likewise, in a fragmented safety landscape, law enforcement will need to enhance its **relational, influencing and collaborative working capabilities**.[41] These will be required to mobilize partners to fight crime and reduce harm, as for example technology firms are now key stakeholders for online child sexual exploitation and abuse, terrorism-related investigations, etc.

CONTINUING THE CONVERSATION

What other duties and capabilities will future law enforcement require?

Please let us know your thoughts by emailing the INTERPOL Innovation Center at **FFL@interpol.int**

B

Join our discussion on REIMAGINING THE POLICING FUNCTION

What is your opinion?

A Do you think the functions of policing will change in the future? What new duties will law enforcement be asked to perform?

B What new duties will law enforcement no longer perform in the coming decades?

C How important will new policing capabilities identified above be in the coming decades? What is missing?

Please let us know your thoughts by emailing the INTERPOL Innovation Centre at FFL@interpol.int

Alternatively, you can share your insights using the following survey: https://www.research.net/r/CD5QZZY

CONSIDERATIONS FOR FUTURE PREPAREDNESS

C

Preparing for the emerging and new challenges will require carefully (re)considering the existing organizational models, workforce and equipment of policing. These issues are examined in Section C. Recognizing the diversity inherent to INTERPOL's 195 member countries, rather than outlining a single model, this working paper seeks to identify key parameters of choices confronting law enforcement in the coming decades. Section C consists of three parts:

I Future(s) of police organizational models
II Future(s) of the police workforce
III Equipping the police officer of the future

A
A rapidly changing world

B
Reimagining the policing function

C
Considerations for future preparedness

D
Implications for international law enforcement

E
Towards a new global paradigm
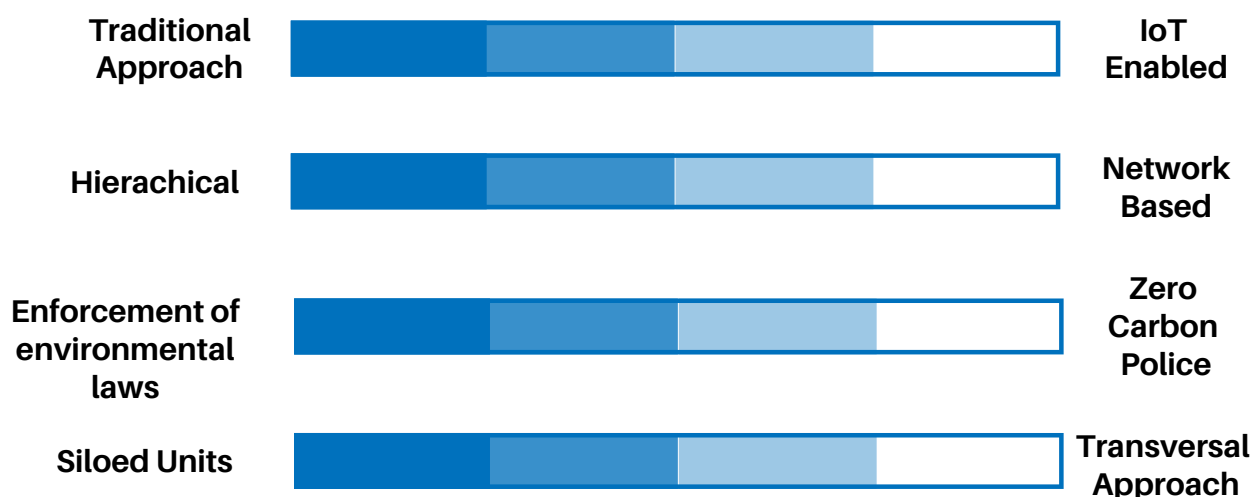
I. Future(s) of police organizational models

To achieve its mission and prepare for emerging challenges, future policing may need to move away from traditional, hierarchical organizations, in favor of new, more resilient, agile and innovative models.

In particular, successful (new) organizational models should:
- Empower police to best exploit innovation, technology and data to disrupt criminality and improve overall efficiency.
- Enable police to work in the broader public safety ecosystem, that now includes other governmental authorities, private firms and non-state actors.
- Allow policing organizations to prioritize and position resources to fight crime at the local, national and international levels in an increasingly hyperconnected world.
- Respond to pressures generated by the growth of environmental concerns, such as calls for policing organizations to do their part and adopt "greener" models.

Addressing these various challenges, this section explores possible evolutions and alternatives to traditional policing models. Key considerations identified are summarized in the table below and further detailed in the following pages.

Key decisions[42] for future police organizations, structures and processes:

Traditional Approach	**IoT Enabled**
Hierachical	**Network Based**
Enforcement of environmental laws	**Zero Carbon Police**
Siloed Units	**Transversal Approach**

1

DIGITAL TRANSFORMATION, AN IMPERATIVE FOR ORGANIZATIONS

Successfully navigating digital transformation is likely to emerge as one of the key organizational challenges for policing in the coming decades.

- Digital technologies and data have the potential to transform how policing is delivered, from disrupting digitally mediated crime to optimizing routine processes. For example, they could enable more **evidence-based policing.**
- However, according to research by Cellebrite, **55% of police agency managers still have a mediocre or no digital transformation strategy at all.**[43]
- From a law enforcement perspective, successful change will require starting from policing capabilities and **focusing not just on technology but also on people and processes**.

💡 What are the key challenges hindering policing organization's successful digital transformation? How might these be overcome?

2

NETWORKED POLICING FOR A NETWORKED WORLD?

Faced with a more complex policing ecosystem, abandoning pyramidal structures for **more network-based and agile operating models** could enable faster response rates and better coordination with local, national, regional and international stakeholders.[44]

- In a networked model, **frontline officers would be at the center of the network** with connections to other officers, resources for support, etc.
- In addition to offering **greater agility, responsiveness** and **cross-agency collaboration**, networked structures could also better promote innovation than hierarchical structures.[45]
- **Technological advances,** e.g. better sensing, communication and management tools, would be key enablers, as would new organizational values, cultures and metrics.

💡 Could more networked models empower junior officers to speak up? Should it encompass actors beyond law enforcement, such as private companies?

A comparison of traditional and network-based policing (Source: Deloitte)
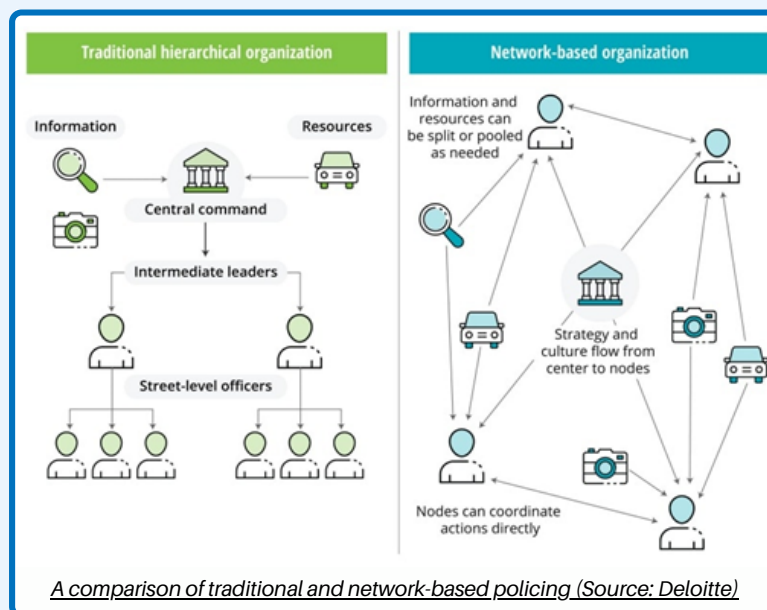
3   TOWARDS GREEN(ER) MODELS OF POLICING?

In the future, policing could face growing **pressures to adopt more environmentally friendly and sustainable model of policing**.

- **"Green policing"** could encompass a lower carbon footprint, zero unnecessary waste and greener procurement. This transformation would likely require organizational-level change.[46]
- For instance, police could be asked to measure and reduce emissions to achieve carbon neutrality, adopt energy-efficient appliances and conservation measures, and prioritize green procurement, e.g. converting police fleets into electric vehicles or deploying green technologies like solar panels.[47]
- Organizations could also be required to establish teams dedicated to enhancing staff awareness and participation in environmental initiatives.

💡 What impact would "green policing" have on operational capabilities?

4   REIMAGINING THE ORGANIZATION OF INVESTIGATIVE UNITS

Faced with more cybercrime and digitally-mediated crime, police organizations may have to rethink the organization of their investigative units.

- As digitalization accelerates, a key strategic goal could be to better **integrate traditional and digital investigative techniques** and enabling more **transversal approaches** running across traditional units (e.g. cybercrime, financial crimes units, etc.)[48]
- Positive steps in this direction could include shifting from "vice squads" to **more strategic investigative capabilities** (e.g. real-time crime analysis and digital evidence capabilities); **decentralizing digital forensic experts** and training specialized examiners who can assist full-time investigators; and ensuring all personnel has basic digital investigation skills.

💡 Which departments and units will need to be re-organized to meet the coming challenges of the digital age?

Achieving meaningful transformation: the need for holistic change management

Whether it is digital transformation or a green transition, widespread organization transformation requires **effective change management strategies.**[49] **Holistic change management** incorporates every aspect of change, from the people to the process to the strategy. There must be a coherent meaning attached to change: in a law enforcement context, this means starting from policing aspirations and/or capabilities. It is also important to focus on people, for instance by providing staff with the necessary reskilling or upskilling, or by co-creating with end-users of new systems.

Especially to enable more effective and timely cooperation, police organizations may need to connect to the skills, expertise and resources that are available within different units (e.g. financial crime, cybercrime) and to a broader 'ecosystem' of partners, including volunteers, public services and private sector expertise.

II. Future(s) of the police workforce

As policing capabilities continue to evolve, recruiting, (re)training and retaining the police officers of the future will be a major strategic challenge for law enforcement. It may require developing innovative approaches to the workforce, including shifts in the design of jobs, recruitment, training and development.

This section maps important (and interconnected) decisions facing organizations as they build the future policing workforce. Many of these choices are not new, but can be expected to grow in importance over the coming decades.

KEY TOPICS FOR DISCUSSION

Key decisions for the future police workforce:

Digitally Enabled		Automated
Generalist		Specialist
Job for life		Gig economy

Key decisions for future training and staff development

In person		Digital
Compulsory		Self-learning

Recruiting the next generation of officers

Recruiting and retaining qualified staff is critical to any organization's future, making talent shortage an important risk.[50] As a highly demanding, sometimes dangerous, but often rewarding profession, policing will surely continue to attract highly dedicated individuals. However, in a digital world where crime is increasingly moving online, harnessing data and technology-related skills not traditionally available in law enforcement will be a growing priority.[51] A related challenge will be to attract the digitally literate Millennials and Generation Z, which may require novel recruitment strategies and processes to meet changing expectations on work-life balance, flexible working arrangements and mental health. Meanwhile, in the coming decades deteriorating public image and trust in law enforcement and budgetary constraints could increasingly challenge policing's continued ability to attract new talent and particular skillsets and undermine long-held assumptions of policing as a job for life.

1 — THE FUTURE OFFICER: DIGITALLY ENABLED, AUGMENTED OR AUTOMATED?

One of the key questions facing the future police workforce is whether to **focus on manpower, digital enablement, or automation.**

- According to Deloitte, in the not-so-distant future, **cognitive automation** could pick up 20 to 30% of activity in back and middle office policing functions, although this may take different forms.[52]
- **Bots** could become an essential part of the police workforce, as they hold the potential to deal with some of the most time consuming aspects of policing. A number of police forces have also started to deploy **robots** to perform certain more menial tasks.[53]
- Although still in the initial stages, advances in **human augmentation** could have an impact on the future police workforce and may require organizations to establish policies and rules to navigate such disruptions.

> What supporting legislative and judicial changes would be required to enable the use of automation and/or human augmentation in a growing number of situations? Even more importantly, how can we ensure that the needs and priorities of the individual police officer always remain at the centre of such initiatives?

2 — GENERALISTS OR SPECIALISTS?

Both are essential to any police organization, but in a context of limited resources, organizations may have to choose between prioritizing a **generalist** or **specialist** model of recruitment.[54] Even the **domains of specialization** are likely to change drastically.

- Generalist models featuring a high proportion of officers equipped with a set of 'core' policing skills can enhance resilience, while specialist models can boost efficiency.
- Although uniformed officers will continue to form the backbone of policing, given the increasing complexity of (digitally mediated) crime, **they are likely to be joined by an increasing number of in-house and external specialists**.[55]
- For many organizations, **this shift could require a change in mindsets**, to recognize that specialist staff in areas like digital investigation and fraud are also an integral part of policing's new front line, even if these roles do not always come with warranted powers.

> Will police departments increasingly require officers to earn higher education degrees?[56] What domains of specialization will be key for effective future policing?

3 DEVELOP TALENT IN HOUSE OR OUTSOURCE?

To address the talent shortage and attract necessary technical skills, police organizations could have the choice between **developing talent in house or outsourcing**.[57]

- For the former, the key challenge will be to attract expertise and talent not traditionally available within policing, including highly demanded skills in data science and IT.
- A related issue will be to **retain this talent**, as skills built internally could easily be lost to other organizations able to provide better salaries, status and/or progression.
- **Outsourcing** could be another option to procure specialized capabilities in a wide range of areas, including data science, cyber investigations, office functions, etc. This might take different forms (e.g. private-public partnerships and consultancies) but would require more staff trained in managing markets and contracts.

> Attracting and retaining skills in high demand in labor markets could emerge as a key future challenge. Is policing willing to pay a chief data scientist more than a chief constable?

4 BUILDING AN INCLUSIVE AND DIVERSE WORKFORCE

Given the need to build and retain community trust, **achieving greater inclusivity and diversity in the workforce** could emerge as a key future challenge.

- Ensuring diversity is a key factor to improve **community relations, trust and legitimacy**. It can also help better address forms of crime like gender-based violence.[58]
- Responding to this challenge will require **understanding the many, sometimes invisible barriers** preventing the recruitment of specific under-represented groups.

> How might an inclusive workforce best be achieved and monitored? And what impact might this have on existing models of cooperation and governance?

5 WILL POLICING REMAIN A JOB FOR LIFE?

Will policing remain **a job for life** in the future, or if it will follow broader labor market trends towards more flexible and varied careers?

- Some police chiefs have reported an increasing trend of mid-career officers leaving policing for private sector roles.
- On the other hand, in many police organizations there are now more entry routes for experienced professionals at inspector and superintendent level.
- Further **breaking silos** between organizations in the security realm - including the police, armed forces, customs and border control - could provide greater flexibility and continuity to policing careers. This flexibility could even be extended at the international level, by enabling more officers to be seconded to organizations in other countries.

> Could greater mobility between public and private, national and international organizations in the security domain make policing more attractive to younger generations and reinforce collaboration across agencies and borders?

Training and development

The opportunity to bring in new skills, including a more digitally literate cohort, in the coming years is considerable, but development and training will also be critical. The complexities of modern policing increasingly require law enforcement agencies to expand how officers are trained to do their jobs. For instance, in addition to arrest, firearms and driving, academies may also need to place greater emphasis on the handing of e-evidence, on applied sciences and on psychological skills.[59] In a fast-paced world, training content developers will be challenged to assess and update learning objectives more frequently to ensure relevance for officers. Clarity of purpose will remain important, there will be a greater need for flexibility, agility and adaptability.

6 PREPARING OFFICERS FOR A DIGITAL WORLD

In a digital world, police academies and training institutions may have to adapt curriculum.
- Law enforcement organizations could **require all officers to have basic minimum technological training.**
- This would be augmented with **specialized training**: training on digital facets of investigations for detectives, on **how to handle and secure digital evidence** at crime scenes for patrol officers, etc.[60]
- Given the pace of innovation, there will also be a greater need for **continuous training.** For example digital forensic experts will require regular, specialized upskilling to keep up with new and emerging technologies. **Trainers can expect greater challenges with regards to frequently conducting needs assessment and updating content.**

> Technology-related training can be expensive and difficult. What approaches could police organizations take to meet this challenge at the local and international level?

7 GREATER EMPHASIS ON DIGITALLY ENABLED LEARNING?

In the coming decades, **basic academy training could go online**, leaving only applied skills to be taught before recruits hit the streets.[61]

- Enabled by technological innovations, such as in extended reality and artificial intelligence, **digital learning could increasingly blur the lines between operational and classroom learning** and introduce new learning paradigms.
- For instance, digital learning could reinforce staff development by enabling **more mobile, daily and customized learning** - or 'sensemaking' - journeys.
- However, this shift would come with its own set of challenges, including growing digital fatigue, displacement of the burden to allocate training time onto the learner and fewer opportunities for socialization.

> **Provide compulsory training or enable self-learning journeys?**
> When transitioning to more digitally-enabled learning, how far should policing ask individuals to manage their own careers – for example, seeking out and investing in their own training and development opportunities, driving their own career choices – versus being provided with clear career pathways with compulsory training at various stages?

LATEST DIGITAL LEARNING DEVELOPMENTS

COLLABORATIVE LEARNING

VIRTUAL AND AUGMENTED REALITY

LEARNING EXPERIENCE PLATFORMS

DIGITAL LEARNING

USE OF ARTIFICIAL INTELLIGENCE

MOBILE LEARNING

MICROLEARNING

GAMIFICATION
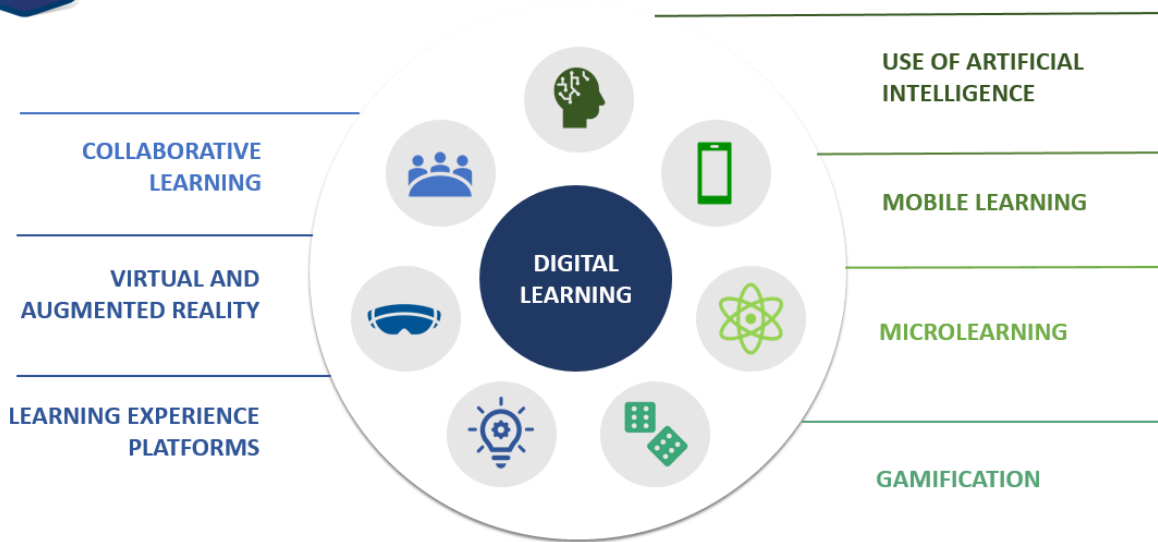
INTERPOL For official use only

Source: INTERPOL Foresight Focus Session on Digital Learning

The INTERPOL Innovation Centre has conducted a foresight exercise on the future(s) of digital learning. Key emerging technologies and practices to enhance future digital learning and training are summarized in the wheel above.

III. Equipping the police officer of the future

Future technological advances could equip police officers with better situational awareness, new investigative tools and enhanced protection. Without claiming to be exhaustive, this section explores emerging, new and possible future innovations that could shape the equipment of the future police officer. To be effective, these tools will need to serve well-defined policing missions and capabilities. They also should not be considered as a replacement for effective training and skilling of officers.

1 NEW UNIFORMS?

Novel materials and exoskeletons

Advances in materials like graphene could transform police uniforms, enabling them to be both lightweight and bullet/ stab proof, as well as integrating heating and cooling technology. In addition, future officers could increasingly make use of high-tech exoskeletons, a kind of body armor amplifying muscular strength and providing greater protection and repetitive strain reduction.[62]

> Could exoskeletons make the policing profession more accessible to disabled individuals?

Smarter handcuffs

The same lightweight but ultra-strong materials could be used for handcuffs. Future handcuffs could also integrate "smart" features, for example enabling officers to monitor the vital signs and health of a person in custody.[63]

> Could "smart" handcuffs improve public trust in arresting officers?

Augmented reality eyewear or helmets

The future police officer could be equipped with augmented reality (AR) eyewear or helmets with inbuilt goggles. Features could include built-in thermal imaging and night vision technology to improve visibility in lowlight areas, the ability to bring up pertinent past information about an address or find exits from a building, etc.[64] In a future where police are called to intervene in the so-called metaverse, AR equipment could also be important for officers to seamlessly move from one realm to the other. If environmental conditions continue to deteriorate, future police helmets might also feature breathing apparatus to combat pollution and infectious diseases.[65] However, designs will have to be chosen carefully to avoid perpetuating a "RoboCop" image.

> How can police integrate cutting-edge equipment without adversely impacting its public image and community trust?

Enhanced body worn cameras and "smart" holsters
Many police forces have piloted body worn cameras for purposes of supervision and recording. While the impact of this technology continues to be debated, technological advances could enhance body cameras, making them smaller, more durable and with better resolution. They could also become better integrated with in-car systems and potentially UAVs to provide synchronized video of an event from multiple points of view.[66] Some body cameras are now paired with smart holsters and designed to activate anytime an officer draws their firearm – could the opposite be true? So-called 'smart holsters' have also been linked to the owners' fingerprints to prevent misuse and theft.[67]

> Could "smart" holsters linked to multiple synchronized cameras improve community relations and reduce the stress on officers in some parts of the world?

2 TECHNOLOGY AS A PARTNER IN THE FIELD

A growing number of police forces are adopting cloud computing solutions, enabling officers to quickly and conveniently access and analyze data. This could range from real-time dashboards monitoring entire cities to centralized criminal justice databases – including INTERPOL ones. This development is being reinforced by advances in areas such as 5G communication and electronics miniaturization, which are enabling more mobile and wearable devices. For instance, in the near future small bracelet-like wrist computer could give officers rapid access to police computer systems and knowledge resources. Handheld biometrics scanners and facial recognition technology are other examples of how mobile and cloud computing technologies could increasingly become partners to officers in the field and improve situational awareness.[68]

3D crime scene imaging
3D imaging through laser scanners is likely to emerge as an important forensic tool for future police, enabling officers to quickly gather data at the scene of crime and preserve it for subsequent analysis, for example by creating a 'digital twin.' In combination with 3D printing techniques, the collected data can then be used to support investigations (e.g. for 3D facial reconstruction) and as courtroom evidence during trials.[69]

> Should 3D forensic science (3DFS) be considered as a distinct interdisciplinary field?

Police drones

Drones can enhance policing thanks to their ability to deliver valuable and actionable real-time intelligence. Their many use cases include crime scene work, accident reconstruction, surveillance, search and rescue efforts, crowd monitoring, border control, traffic management, etc. In high-risk situations, drones can also minimize the risk to officers while still enabling the pursuit of suspects. While police forces around the world have used drones since the mid-2000s,[70] advances in fields like artificial intelligence, robotics and thermal imaging could make them even more widespread in the near future, not just in the air but also underwater (ROVs). However, their use is likely to trigger some opposition due to privacy concerns. This issue will be even more pronounced if (lethal or non-lethal) armed drones are ever approved for domestic policing purposes.[71]

> What could be the benefits, drawbacks and requirements of armed drones in a domestic policing context?

FUTURE POLICE VEHICLES

3

Innovations in police vehicles are increasingly enabling them to become "police stations on wheels." In the near future, police cruisers could be equipped with advanced onboard computer systems showing live locations of incidents and enabling the most direct route to the scene. Other "smart" features could include voice technology allowing the officer to control functions while driving, automated license plate recognition, onboard drones and of course next-generation safety features. Given existing future trends in mobility and environmental considerations, the police vehicle of the future is also likely to be more electric, with a growing number of forces embracing hydrogen powered cars. Another key development is the growth of various levels of autonomous vehicle technology.[72] With major industry players like Ford already filing patents for AI-powered self-driving police cars able to help enforce traffic safety laws, is law enforcement prepared to leverage autonomous vehicles – but also to handle their emergence on public roadways?

> How will the future of mobility affect police vehicles and policing at large?[73]

C

Join our discussion on CONSIDERATIONS FOR FUTURE PREPAREDNESS

What is your opinion?

A How should law enforcement prepare for the future? What are key considerations to enhance preparedness?

B What organizational models are needed in a digital age? Has your organization adopted any new models you would recommend?

C What are essential conditions for successful digital transformation? Does your organization have a strategy for the digital age?

D What does the future police officer look like? What skills, knowledge and tools will be the most useful in the coming decades?

E What do you foresee as being the greatest challenge in building the future police workforce in the next 5, 10 and 25 years?

F What kind of transformations in police equipment would most benefit the profession?

Please let us know your thoughts by emailing the INTERPOL Innovation Centre at **FFL@interpol.int**

Alternatively, you can share your insights using the following survey: **https://www.research.net/r/96SGX26**

IMPLICATIONS FOR INTERNATIONAL LAW ENFORCEMENT

D

As crime continues to be more transnational and more complex in the coming decades, there will be a strong and enduring need for international cooperation and investigative support. At the same time, international police cooperation will likely have to evolve to best serve and enable an evolving policing function. This section explores the implications of the changing landscape and policing function for international law enforcement cooperation, and how it will need to adapt to continue to make the world a safer place.

A	B	C	D	E
A rapidly changing world	Reimagining the policing function	Considerations for future preparedness	Implications for international law enforcement	Towards a new global paradigm

I. Global cooperation in a changing world

In the absence of an overarching multi-jurisdictional entity, effective international police cooperation will remain the best tool available to combat transnational crimes. Given the continued growth and sophistication of such crimes, there will clearly be an enduring need for international police cooperation. However, faced with internal and external pressures, how might the roles and structures of police cooperation evolve? For instance, will future police cooperation place a greater emphasis on information sharing, investigative support or even acquire operational capabilities? What crimes will need to be prioritized, and what kind of structures and processes will be required to combat them?

This section explores key implications of the changing landscape and policing function for international law enforcement cooperation, and how it will need to adapt to continue to make the world a better place.[74]

1 SUPPORTING POLICING IN A RAPIDLY CHANGING WORLD

Faced with rapidly evolving needs, police cooperation will have to **become more responsive** and offer support **wherever the new front lines may be**.

2 ENABLING CRIMINAL INVESTIGATIONS IN THE DIGITAL AGE

The growth of transnational, technologically-sophisticated crimes will likely fuel the need for **greater support against digitally-mediated crimes.**

3 NAVIGATING THE FUTURE GLOBAL POLICING ARCHITECTURE

As the **global policing architecture becomes increasingly multi-layered**, new structures and approaches to cooperation may be required.

4 REACHING THE LAST OFFICER ON THE GROUND

In an increasingly connected world, even local police may require **global capabilities** - making the digital divide a major challenge to overcome.

5 TOWARDS AN ENHANCED LEGISLATIVE FRAMEWORK?

Will future international police cooperation become empowered by new international treaties and legislative frameworks?

1 SUPPORTING POLICING IN A RAPIDLY CHANGING WORLD

As the needs of law enforcement will evolve rapidly, police cooperation will have to **become more responsive and provide support wherever the new front lines of policing may be**.

- To remain relevant, organizations like INTERPOL will be **required to frequently assess needs** with regards to investigations, operational support, training, capacity building.
- In this regard, integrating **strategic foresight** and fostering **a culture of innovation** could unlock greater agility in a changing world and better preparedness for future crises. Likewise, deploying **"as-a-service" models** could enable greater flexibility.
- A positive step in this direction might be to adopt a **digital-at-the-core model**. Digitalizing services like trainings and conferences (or using a hybrid format) could also improve **accessibility.**

> International police cooperation, like all law enforcement agencies, will need to attract the right people and skills, which could require modernizing recruitment processes and working arrangements to attract future generations.

2 ENABLING CRIMINAL INVESTIGATIONS IN THE DIGITAL AGE

The growth of transnational, technologically-sophisticated crimes will **likely fuel needs for greater collaboration and investigative support, especially for digitally-mediated crimes.**

- Improving cooperation may entail upgraded processes and tools for **data exchange**. For instance, new and existing **databases could be upgraded using AI solutions** to provide greater interoperability, defensibility, unification, searchability and automation.
- **Optimizing global data collection and analysis capabilities**, such as aggregating various local and national datasets, could form a vast **global data lake** for investigators.
- More digitally-mediated crime is also likely to drive **a need for greater technical investigative support and expertise,** ranging from training and capacity building to direct operational assistance like digital forensics. Organizations like INTERPOL could increasingly **be expected to facilitate access to new technological tools**, directly or indirectly.

> What new global databases will be needed to support future investigations?

3 NAVIGATING THE FUTURE GLOBAL POLICING ARCHITECTURE

The global policing architecture is becoming increasingly multi-layered and complex, requiring new structures and approaches to cooperation.

- **International policing now encompasses various regional organizations and non-police security institutions**. While this emerging system could reinforce global law enforcement, observers have also warned against the **risk of fragmentation** and the rise of mostly closed intra-regional cooperation systems or bilateral arrangements.
- Meanwhile, **enforcement roles are diversifying.** A growing number of non-state actors like internet service providers, social media companies and financial institutions now have a significant role in investigations and enforcement - and often greater resources.
- Leading in this emerging multi-layered global policing architecture may require **more digitally-enabled, networked and agile models**, such as transitioning towards a stakeholder rather than an ownership concept.

> Due to various technical and regulatory challenges, law enforcement around the world faces the prospect of diminishing access to data, hindering investigations and forcing police to increasingly concede enforcement space to the private sector online. How could law enforcement formulate a global response to safeguard investigations?

4

REACHING THE LAST OFFICER ON THE GROUND

In an increasingly connected world, **even local police may require greater international policing capabilities**, though bridging the **digital divide** will be a key challenge.

- Strengthening INTERPOL's digital core could create **an accessible, easy-to-use, secure, reliable, and seamless platform for policing**, allowing INTERPOL to advise and assist national and local law enforcement agencies in complex, multi-jurisdiction investigations.
- By embracing digital transformation and harnessing **mobile technology**, organizations like INTERPOL could **enable officers in the field to connect to systems directly and in real-time**, streamlining access to intelligence, guidelines, training and other services.

💡 App-based solutions could be equipped with machine translation for greater coverage, but **addressing the digital divide** across INTERPOL member countries - and within states themselves - will be an important challenge.

5

TOWARDS AN ENHANCED LEGISLATIVE FRAMEWORK?

Given its likely growing significance, could future international police cooperation become empowered by a growing number of international treaties and legislative frameworks?

- International instruments targeting various forms of transnational crime could **complement or update United Nations Convention Against Transnational Organized Crime** for a digital age, providing new tools and/or mandates for international investigators.

💡 Could/ should red notices evolve to have legally binding implications? And what new colors might INTERPOL notices take?

As transnational crime continues to grow and evolve, what other steps could/ should police cooperation take? For example, in a multi-layered global policing architecture, how can law enforcement best devise common responses to urgent global challenges?

CONTINUING THE CONVERSATION

What are other implications for international law enforcement cooperation? How will the existing system need to adapt to best serve member countries in the future?

Please let us know your thoughts by emailing the INTERPOL Innovation Center at FFL@interpol.int

D

Join our discussion on IMPLICATIONS FOR INTERNATIONAL LAW ENFORCEMENT

What is your opinion?

A What do you think will be the most important element of future international law enforcement cooperation?

B Do you have any observations or recommendations on how the role and services of INTERPOL should evolve in the next decade?

Please let us know your thoughts by emailing the INTERPOL Innovation Centre at **FFL@interpol.int**
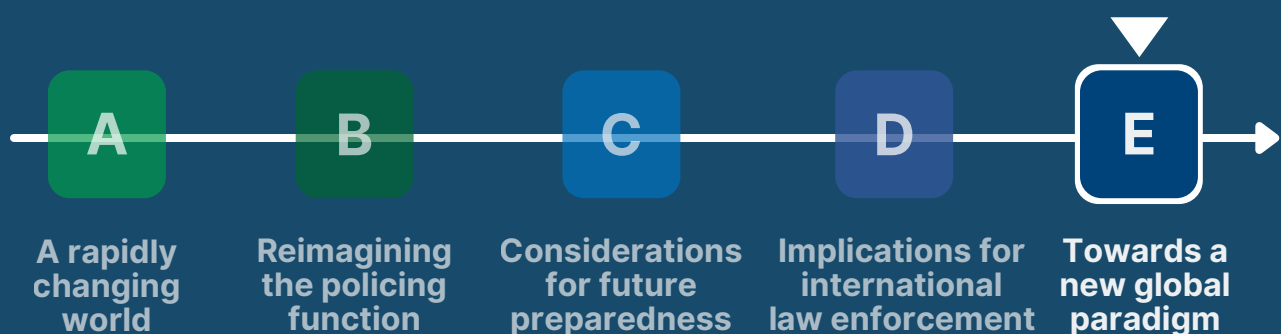
Alternatively, you can share your insights using the following survey: **https://www.research.net/r/9ZZHK5P**

TOWARDS A NEW GLOBAL PARADIGM OF POLICING

E

Policing has been evolving for centuries and will continue to do so for centuries to come. However, the pace of change will be higher than ever before. The shifting landscape due to the outbreak of COVID-19 is proof that change can happen swiftly, complex impacts can proliferate in the blink of an eye, and uncertain implications are often closer than we would like to imagine. It is the convergence of different trends and realities, probably in unforeseen ways, that will shape the future policing's context. Especially shifts in technology and community expectations are driving law enforcement to adopt new policing strategies, and law enforcement needs the right people working in the right organizational structures. Culture change and new capabilities are necessary to create the innovative, adaptive police departments of the future and to ensure international police cooperation, which is needed more than ever.

A	B	C	D	E
A rapidly changing world	Reimagining the policing function	Considerations for future preparedness	Implications for international law enforcement	Towards a new global paradigm

I. REVIEWING THE ROAD SO FAR

The graphic below maps the different aspects of the future of policing explored in this Working Paper. Over 2022-2023, the Innovation Centre will continue this mapping, with inputs from INTERPOL's member countries and focusing on capabilities, criminal investigations, community outreach, organizational models, workforce and equipment. Member countries and relevant stakeholders are encouraged to send their contributions to FFL@interpol.int.

II. POTENTIAL STRATEGIC DIRECTIONS FOR FUTURE POLICING

The first exploration into the future(s) of policing in this working paper yields the following strategic directions:

1. Policing should be organized on a community, regional and global level

2. Strong presence in both the physical and digital domain

3. Working with "State of the Art" intelligence and technology

4. Build effective national and international cooperation

5. Be an attractive employer for top notch digital native officers

6. Build agile, active and transparent organizations

7. Always be led by the rule of law principles

8. ?

However, this is not the end. We would like to continue the conversation and receive your inputs and feedback so we can further improve this working paper and continue to work towards developing a global paradigm on the Future of Policing.

E

Join our discussion TOWARDS A NEW GLOBAL PARADIGM ON THE FUTURE POLICING

What is your opinion?

A Are there any other important aspects not currently addressed in our process which need to be considered when preparing an INTERPOL paradigm of the future of policing?

B What do you expect from an INTERPOL global paradigm on the future of policing? What format would add the most value for your organization?

Please let us know your thoughts by emailing the INTERPOL Innovation Centre at **FFL@interpol.int**

Alternatively, you can share your insights using the following survey: **https://www.research.net/r/DKPC2SS**

Endnotes

Section A - A Rapidly Changing World

1. Digitalization has increasingly permeated all aspects of society, with more and more people and organizations shifting online: while less than 7% of the world was online in 2000, today over half the global population has access to the internet. Similarly, the number of cell phone subscriptions has increased more than tenfold since the start of the 2000s, from 740 million to over 8 billion: World Economic Forum, "Here's how technology has changed the world since 2000," (2020).

2. For instance, the convergence of information technology, biotechnology and nanotechnology could generate breakthroughs in human augmentation. For examples, see: EY, "What's after what's next: The upside of disruption, Megatrends Shaping 2018 and beyond," (2018). For an overview of essential convergence themes, see for instance: PwC, "The Essential Eight technology trends," (2020).

3. UNDESA, "68% of the world population projected to live in urban areas by 2050, says UN," (2018). It should however be noted that definitions of an "urban area" can vary markedly between countries. For example, see: https://unstats.un.org/unsd/demographic/sconcerns/densurb/Defintion_of%20Urban.pdf

4. For a review of the academic literature on smart cities and crime prevention, please see: Delgado, Gerard Vivo and Francisco J. Castro-Toledo, "Urban Security and Crime Prevention in Smart Cities: A Quantitative Systematic Review," (2020).

5. The World Bank estimates that climate change could displace over 216 million people across six world regions by 2050: "Climate Change Could Force 216 Million People to Migrate Within Their Own Countries by 2050," (2021).

6. In the coming decades the world will face the largest cohort of youth in history, with 2 billion young women and men projected to seek employment by 2030: UNICEF, "UNICEF and young people," (2021).

7. Some studies suggest that Generation Z may be more concerned with issues of social justice, mental health and climate change. For example, see the survey conducted by the Pew Research Centre: "What We Know About Gen Z So Far," (2020). If true, many of these concerns are likely to be further exacerbated by the socio-economic impact of the COVID-19 pandemic.

8. The changing trust landscape and the corresponding need to maintain the confidence of communities is one of the most recurring themes in the futures documents produced by police agencies examined as part of this working paper. See for example the United Kingdom's College of Policing, "Policing in England and Wales: Operating Environment 2040,"(2020) and ANZPAA's "2020 Annual Trends Analysis," (2020).

9. Australia New Zealand Policing Advisory Agency, "2020 ANZPAA Annual Trends Analysis," (2020).

10. Biodiversity is declining faster than it has at any other time in human history. In the coming decades, the trend towards biodiversity loss and ecosystem is likely to continue to accelerate, with conservative estimates indicating that between 200 to 2,000 species are going extinct each year: United Nations, "UN Report: Nature's Dangerous Decline 'Unprecedented'; Species Extinction Rates 'Accelerating' – United Nations Sustainable Development," (2019).

11. EY, "Megatrends 2020 and beyond," (2020). See also: WEF, "The Global Risks Report 2021," (2021).

12. For an example of scenarios on the future of cooperation against transnational crime: Global Initiative against Transnational Organized Crime, "The undoing of UNTOC? The future of international cooperation against transnational organized crime," (2021).

13. A consortium of central banks is currently working in conjunction with the Bank of International Settlements to explore foundational principles for sovereign digital currencies. For example, o date China's central bank digital currency, the digital yuan, has been used in transactions worth nearly $10 billion, and has been downloaded by about 140 million people: Bitcoin.com, "China's Digital Currency Used in Transactions Worth $10 Billion," (2021).

14. World Economic Forum, "The Fourth Industrial Revolution: what it means and how to respond," (2016).

15. Deloitte, "Policing 4.0," (2018). In many parts of the world, private investment in crime prevention - including in private security companies, consultancies and technology firms - already vastly exceeds public investment.

16. For instance, law enforcement requests for user information — phone calls, emails, texts, photos, shopping histories, driving routes and more — have more than tripled in the U.S. since 2015: AP News, "How Big Tech created a data 'treasure trove' for police," (2021).

17. EUROPOL, "Do criminals dream of electric sheep: how technology shapes the future of crime and law enforcement," (2019).

18. For instance, please see IDC and Cellebrite, "Policing 2025: Envisioning a New Framework for Investigations," (2021).

19. The examples are too numerous to be listed here. For instance, the emergence of online marketplaces, social media and the dark web has been exploited for the illicit trade of everything, from wildlife, illegal substances, human organs, cultural property and counterfeit products. Some actors now use virtual currencies and alternative banking platforms to launder their illicit gains, while organized crime and terrorist groups both resort to new (encrypted) communication technologies and platforms to connect and interact covertly. For a good overview of how digitalization is transforming existing criminal markets, see GITOC, "Transformative Technologies: How digital is changing the landscape of organized crime | Global Initiative," (2020).

20. As the pandemic has demonstrated in many parts of the world, "doing more" can sometimes create a backlash. Thus it should be noted that in several countries, law enforcement have faced public calls to do less - with less funding. See for instance The Marshall Project, "The System: The Future of Policing," (2020).

21. Deloitte, "Policing 4.0 Deciding the future of policing in the UK," (2018).

22. United Kingdom College of Policing, "Policing in England and Wales: Future Operating Environment 2040," (2020).

23. For more information on the emerging 'metaverse,' please see: Meta, "Founder's Letter, 2021," (2021). For the policing implications: Liverpool Hope University, "Who is Going to Police the 'Metaverse'?," (2021).

Section B - Reimagining Policing

24. Deloitte, "Policing 4.0 - How 20,000 officers can transform UK policing," (2020).

25. Royal United Services Institute, "Big Data and Policing: An Assessment of Law Enforcement Requirements, Expectations and Priorities," (2021).

26. The Guardian, "LAPD ended predictive policing programs amid public outcry. A new effort shares many of their flaws," (2021).

27. Deloitte, "Smart Policing: Top Five Policing Innovations Shaping the Future," (2018).

28. BBC News, "Inside the controversial US gunshot-detection firm," (2021).

29. For instance, image recognition could help officers identify clues from crime scene photographs or videos of child sexual exploitation: BBC News, "The new weapon in the fight against crime," (2019).

30. On deepfakes and digital forensics: Society of Police Futurists International, "Deepfakes, Forensic Science, and Police Investigations," (2019).

31. For example: Deloitte, "The Digital Policing Journey: From Concept to Reality," (2015).

32. Kaiser, "Forensic DNA Phenotyping: Predicting human appearance from crime scene material for investigative purposes," (2015). See also Arora, "Future of Forensic and Crime Scene Science Technologies," (2020) and ISHI, "Predictions for the Future of Forensic Science," (2019).

33. New Scientist, "Future forensics: Harnessing the spirit of Sherlock Holmes," (2017).

34. Meier-Augenstein, "Forensic stable isotope signatures: Comparing, geo-locating, detecting linkage," (2019).

35. UN Peacekeeping, "Police as first responders to the global climate crisis," (2019).

36. Luong, "Contributions and Responsibilities of Police Forces in Natural Disasters: A Review of Vietnam's Case Study" (2021).

37. Society of Police Futurists International, "The great reset: Policing in 2030," (2020).

38. Government of Dubai Media Office, "Dubai Police inaugurates Five Smart Police Stations in 2020," (2020).

39. Police in South Korea have already used a metaverse platform and uniquely decorated avatars to discuss policies on school public safety: The Korea Bizwire, "Teenagers Meet with Police Officers on Metaverse to Discuss Public Safety Policies," (2021).

40. Deloitte, "Policing 4.0," (2018).

41. Ibid.

Section C - Considerations for Future Preparedness

42. The choices framework in this section are inspired by Deloitte, "Policing 4.0 - How 20,000 officers can transform UK policing," (2020).

43. Research presented during the 9th INTERPOL STRATalks Futures Network - Futures Series (28 October 2021). These findings were corroborated by participants, with 75% of respondents during the session indicating that digital transformation in their organization is conducted in an ad hoc or opportunistic way.

44. PwC, "Policing in a networked world," (2018).

45. Johnson, A. and Michael Vaughn, "Decoupling and Police Organizational Structure: Administrative Theory & Praxis," (2016).

46. Vancouver Police Department and University of British Columbia, "Green Policing," (2018).

47. For instance, The Dubai Police has committed to making its police force carbon neutral: UNFCCC, "Zero Carbon Police Force," (2017).

48. Police Executive Research Forum, "The Changing Nature of Crime and Criminal Investigations," (2018).

49. Deloitte, "Reimagining law enforcement of the future," (2021).

50. The global talent shortage was identified as the top emerging risk facing organizations in a survey conducted by Gartner: "Gartner Survey Shows Global Talent Shortage Is Now the Top Emerging Risk Facing Organizations" (2019). For a discussion of the implications of talent shortage for law enforcement, please see INTERPOL, "Policing Futures Bulletin (March 2021)."

51. Accenture, "Reimagining the Police Workforce: Future vision," (2018).

52. Deloitte, "Policing 4.0," (2018).

53. To give just one example among many, the New Zealand police has "recruited" a life-like, AI-powered virtual assistant called Ella: NZ Herald, "Meet Ella: New Zealand Police unveil first artificial intelligence officer," (2020).

54. IACP, "University Perspective: The Policing Function in 2050," (2006).

55. PwC, "The Police Force of Tomorrow – Agile and Tech-Savvy," (2018).

56. Hernandez-Khan, Jennifer, "Preparation of Current and Future Law Enforcement Officers in an Academic Setting: A Case Study," (2019).

57. Deloitte, "Policing 4.0 - How 20,000 officers can transform UK policing," (2020).

58. PwC, "India's new age of policing to improve women's safety," (2019).

59. Blumberg, Schlosser, Papazoglou, Creighton and Kaye, "New Directions in Police Academy Training: A Call to Action," (2019).

60. Police Executive Research Forum, "The Changing Nature of Crime and Criminal Investigations," (2018).

61. Insights on digital learning are derived from the INTERPOL Futures and Foresight's Lab horizon scan conducted around July 2021 and a dedicated Foresight Focus Session, featuring seasoned futurists and renowned experts on digital learning.

62. McKinnon, "Exoskeleton Technology's Impact on Policing," (2017). The exoskeleton market was valued at US$392 million in 2020 and is projected to grow to US$6.8 billion in global revenue by: ABI Research, "Exoskeletons in 2020: A Technology Still Finding Its Feet," (2020).

63. Police LIFE (Victoria Police), "2050 policing: an imagining," (2020).

64. For instance, an officer arriving at an unfamiliar situation could use augmented reality glasses to see pertinent information about prior calls for service from this address or see its recent crime history: Deloitte, "Smart Policing: Top Five Policing Innovations Shaping the Future," (2020).

22. United Kingdom College of Policing, "Policing in England and Wales: Future Operating Environment 2040," (2020).

23. For more information on the emerging 'metaverse,' please see: Meta, "Founder's Letter, 2021," (2021). For the policing implications: Liverpool Hope University, "Who is Going to Police the 'Metaverse'?," (2021).

24. Deloitte, "Policing 4.0 - How 20,000 officers can transform UK policing," (2020).

25. Royal United Services Institute, "Big Data and Policing: An Assessment of Law Enforcement Requirements, Expectations and Priorities," (2021).

26. The Guardian, "LAPD ended predictive policing programs amid public outcry. A new effort shares many of their flaws," (2021).

27. Deloitte, "Smart Policing: Top Five Policing Innovations Shaping the Future," (2018).

28. BBC News, "Inside the controversial US gunshot-detection firm," (2021).

29. For instance, image recognition could help officers identify clues from crime scene photographs or videos of child sexual exploitation: BBC News, "The new weapon in the fight against crime," (2019).

30. On deepfakes and digital forensics: Society of Police Futurists International, "Deepfakes, Forensic Science, and Police Investigations," (2019).

31. For example: Deloitte, "The Digital Policing Journey: From Concept to Reality," (2015).

32. Kaiser, "Forensic DNA Phenotyping: Predicting human appearance from crime scene material for investigative purposes," (2015). See also Arora, "Future of Forensic and Crime Scene Science Technologies," (2020) and ISHI, "Predictions for the Future of Forensic Science," (2019).

33. New Scientist, "Future forensics: Harnessing the spirit of Sherlock Holmes," (2017).

34. Meier-Augenstein, "Forensic stable isotope signatures: Comparing, geo-locating, detecting linkage," (2019).

35. UN Peacekeeping, "Police as first responders to the global climate crisis," (2019).

36. Luong, "Contributions and Responsibilities of Police Forces in Natural Disasters: A Review of Vietnam's Case Study" (2021).

37. Society of Police Futurists International, "The great reset: Policing in 2030," (2020).

38. Government of Dubai Media Office, "Dubai Police inaugurates Five Smart Police Stations in 2020," (2020).

39. Police in South Korea have already used a metaverse platform and uniquely decorated avatars to discuss policies on school public safety: The Korea Bizwire, "Teenagers Meet with Police Officers on Metaverse to Discuss Public Safety Policies," (2021).

40. Deloitte, "Policing 4.0," (2018).

41. Ibid.

Section C - Considerations for Future Preparedness

42. Research presented during the 9th INTERPOL STRATalks Futures Network - Futures Series (28 October 2021). These findings were corroborated by participants, with 75% of respondents during the session indicating that digital transformation in their organization is conducted in an ad hoc or opportunistic way.

43. PwC, "Policing in a networked world," (2018).

44. Johnson, A. and Michael Vaughn, "Decoupling and Police Organizational Structure: Administrative Theory & Praxis," (2016).

45. Vancouver Police Department and University of British Columbia, "Green Policing," (2018).

46. For instance, The Dubai Police has committed to making its police force carbon neutral: UNFCCC, "Zero Carbon Police Force," (2017).

47. Police Executive Research Forum, "The Changing Nature of Crime and Criminal Investigations," (2018).

48. The choices framework in this section are inspired by Deloitte, "Policing 4.0 - How 20,000 officers can transform UK policing," (2020).

49. Deloitte, "Reimagining law enforcement of the future," (2021).

50. The global talent shortage was identified as the top emerging risk facing organizations in a survey conducted by Gartner: "Gartner Survey Shows Global Talent Shortage Is Now the Top Emerging Risk Facing Organizations" (2019). For a discussion of the implications of talent shortage for law enforcement, please see INTERPOL, "Policing Futures *Bulletin* (March 2021)."

51. Accenture, "Reimagining the Police Workforce: Future vision," (2018).

52. Deloitte, "Policing 4.0," (2018).

53. To give just one example among many, the New Zealand police has "recruited" a life-like, AI-powered virtual assistant called Ella: NZ Herald, "Meet Ella: New Zealand Police unveil first artificial intelligence officer," (2020).

54. IACP, "University Perspective: The Policing Function in 2050," (2006).

55. PwC, "The Police Force of Tomorrow – Agile and Tech-Savvy," (2018).

56. Hernandez-Khan, Jennifer, "Preparation of Current and Future Law Enforcement Officers in an Academic Setting: A Case Study," (2019).

57. Deloitte, "Policing 4.0 - How 20,000 officers can transform UK policing," (2020).

58. PwC, "India's new age of policing to improve women's safety," (2019).

59. Blumberg, Schlosser, Papazoglou, Creighton and Kaye, "New Directions in Police Academy Training: A Call to Action," (2019).

60. Police Executive Research Forum, "The Changing Nature of Crime and Criminal Investigations," (2018).

61. Insights on digital learning are derived from the INTERPOL Futures and Foresight's Lab horizon scan conducted around July 2021 and a dedicated Foresight Focus Session, featuring seasoned futurists and renowned experts on digital learning.

62. McKinnon, "Exoskeleton Technology's Impact on Policing," (2017). The exoskeleton market was valued at US$392 million in 2020 and is projected to grow to US$6.8 billion in global revenue by: ABI Research, "Exoskeletons in 2020: A Technology Still Finding Its Feet," (2020).

63. Police LIFE (Victoria Police), "2050 policing: an imagining," (2020).

64. For instance, an officer arriving at an unfamiliar situation could use augmented reality glasses to see pertinent information about prior calls for service from this address or see its recent crime history: Deloitte, "Smart Policing: Top Five Policing Innovations Shaping the Future," (2020).

65. Police LIFE (Victoria Police), "2050 policing; an imagining," (2020).

66. Fritsvold, "12 Police Technologies That Are Transforming Law Enforcement," (2020).

67. Legal Reader, ""Smart" Gun Holsters: What's the Point? - Legal Reader," (2017).

68. For a good discussion of wearable technologies for law enforcement, see: RAND, "Wearable Sensor Technology and Potential Uses Within Law Enforcement," (2020).

69. Carew, French and Morgan, "3D forensic science: A new field integrating 3D imaging and 3D printing in crime reconstruction," (2021).

70. For instance, police forces in China, Germany, Ghana, India, the United States, the United Kingdom and the United Arab Emirates have been known to use drones.

71. Enemark, "Armed Drones and Ethical Policing: Risk, Perception, and the Tele-Present Officer," (2021).

72. Brookings, "Autonomous vehicles could improve policing, public safety, and much more," (2020).

73. Police Chief Magazine, "Implications of Self-Driving Vehicles," (2018).

Section D - Implications for International Law Enforcement Cooperation

74. Many of the insights of this section are derived from internal documents, including: INTERPOL, "International Police Cooperation Post-Covid-19," (2020). This extended discussion paper was prepared in collaboration with the INTERPOL STRATalks Futures Network and featured four scenarios for future police cooperation.

APPENDIX 1: GLOBAL PERSPECTIVES ON FUTURE POLICING

The INTERPOL Innovation Centre aims to establish a list of global perspectives on the future of policing. The below list of selected works from the law enforcement, international organizations, the private sector and academia will be regularly updated. If you or your organization have produced or know of any strategic documents, visions, scenarios or other reports on the future of policing, please share your contributions at FFL@interpol.int.

(1) NATIONAL LAW ENFORCEMENT PERSPECTIVES

Country	Agency	Date	Title	Description
Australia	Victoria Police	[2020]	2050 policing; an imagining	
	National Security College & Australian National University	[2019]	"Trusted, ethical, fast-moving and effective: the AFP investigative team of 2030"	
	National Security College & Australian National University	[2018]	"Scenarios for 2030 report"	4 possible futures: • #Techsplosion — a turbo-charged take up of technology • Devolution revolution — the shift from large institutions to community-based services • Wikigov — where people shape policy direct through online platforms • New world (dis)order — where global instability sees us turn inward
Czech Republic	Police of the Czech Republic		Conception of the Development of the Police until 2027	
The Netherlands	The Scientific Council for Government Policy (Wetenschappelijke Raad voor het Regeringsbeleid, WRR)	[2021]	"Politiefunctie in een veranderende omgeving"	Recommendation to make the organization of the police function the subject f regular attention. Specifically, the influence of privatization and digitalization must be central in this regard.
	Strategy and Innovation Directorate - Netherlands Police	[2021]	Veiligheid, vertrouwen& verbinding - Strategische agenda politie 2021-2025	In depth description of the activities and ambitions concerning the strategic agenda 2021-2025. A core aspect is the connection with society and people. Ambitions include proper organization, transparency, new security coalitions, network building and state-of-the-art intelligence and technology.
United Kingdom	College of Policing	[2020]	"Policing in England and Wales Future Operating Environment 2040"	Four possible scenarios for policing's environment out to 2040: Fragile Seams ("continued growth"), Pandora's Box ("societal collapse"), Green Reset ("conserver society"), Black Mirror ("transformation")
	The National Police Chiefs Council (NPCC)	[2016]	"Policing Vision 2025"	The link between communities and the police will continue to form the bedrock of British policing. Specialist capabilities, an attractive and agile workforce and digital policing will help to respond to existing and emerging crime types.

APPENDIX 1: GLOBAL PERSPECTIVES ON FUTURE POLICING

The INTERPOL Innovation Centre aims to establish a list of global perspectives on the future of policing. The below list of selected works from the law enforcement, international organizations, the private sector and academia will be regularly updated. If you or your organization have produced or know of any strategic documents, visions, scenarios or other reports on the future of policing, please share your contributions at FFL@interpol.int.

(1) NATIONAL LAW ENFORCEMENT PERSPECTIVES

Country	Agency	Date	Title	Description
Australia	Victoria Police	[2020]	2050 policing; an imagining	
	National Security College & Australian National University	[2019]	"Trusted, ethical, fast-moving and effective: the AFP investigative team of 2030"	
	National Security College & Australian National University	[2018]	"Scenarios for 2030 report"	4 possible futures: • #Techsplosion — a turbo-charged take up of technology • Devolution revolution — the shift from large institutions to community-based services • Wikigov — where people shape policy direct through online platforms • New world (dis)order — where global instability sees us turn inward
Czech Republic				
The Netherlands	The Scientific Council for Government Policy (Wetenschappelijke Raad voor het Regeringsbeleid, WRR)	[2021]	"Politiefunctie in een veranderende omgeving"	Recommendation to make the organization of the police function the subject of regular attention. Specifically, the influence of privatization and digitalization must be central in this regard.
	Netherlands Police, Strategy and Innovation Directorate	[2021]	Veiligheid, vertrouwen & verbinding - Strategische agenda politie 2021-2025	
United Kingdom	College of Policing	[2020]	"Policing in England and Wales Future Operating Environment 2040"	Four possible scenarios for policing's environment out to 2040: Fragile Seams ("continued growth"), Pandora's Box ("societal collapse"), Green Reset ("conserver society"), Black Mirror ("transformation")
	The National Police Chiefs Council (NPCC)	[2016]	"Policing Vision 2025"	The link between communities and the police will continue to form the bedrock of British policing. Specialist capabilities, an attractive and agile workforce and digital policing will help to respond to existing and emerging crime types.

46

(2) INTERNATIONAL & NON LAW ENFORCEMENT PERSPECTIVES

Entity	Date	Title	Description
Accenture	[2018]	Reimagining the police workforce: Future vision	xxxx
	[2018]	The connected officer in an age of disruption	
Cellebrite and IDC	[2021]	"Policing 2025: Envisioning a New Framework for Investigations"	
Deloitte	[2021]	Reimagining law enforcement of the future	
	[2020]	Policing 4.0: How 20,000 officers can transform UK policing	
	[2018]	"Policing 4.0 Deciding the future of policing in the UK"	
Global Initiative against Transnational Organized Crime	[2021]	The undoing of UNTOC? The future of international cooperation against transnational organized crime	
Inayatullah, Sohail	[2013]	The Futures of policing: going beyond the thin blue line	
McKinsey	[2017]	Policing – a vision for 2025	
PwC [2018]	[2018]	Policing in a networked world	
Police Executive Research Forum	[2018]	The Changing Nature of Crime and Criminal Investigations	
RAND Corporation, Police Executive Research Forum, RTI International, and University of Denver	[2015]	"Visions of Law Enforcement Technology in the period 2024-2034: report of the LE Futuring workshop"	
Society of Police Futurists International	[2020]	The great reset: Policing in 2030	
Schafer et al.	[2012]	The Future of Policing: A Practical Guide for Police Managers and Leaders	
The National Police Foundation (United States)	[2019]	Planning for the Future: A Primer for Police Leaders on Futures Thinking	
The Police Foundation (United Kingdom)	[2018]	Building a police workforce for the future	