

# Where next for policing and technology?

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## **ABOUT THE AUTHOR**

### **Sir Craig Mackey**

Sir Craig's long police career culminated in a six-year tenure as Deputy Commissioner of the Metropolitan Police Service, from which he retired in 2018. His police career began in 1984 with Wiltshire Constabulary, from where he moved to Gloucestershire Constabulary as Assistant and subsequently Deputy Chief Constable and then onto Cumbria. As Chief Constable of Cumbria Police, he worked closely with the Civil Nuclear Constabulary and Sellafield Ltd. He joined the Civil Nuclear Police Authority board as an independent member in 2019 and also serves on the board of the British Transport Police. Sir Craig has just joined Cityforum as an Associate and will be advising on policing and national security questions. His civil contingencies and resilience experience will be significant as our work in this area increases.

## INTRODUCTION

Leidos and Cityforum are pleased to publish this insightful paper by Sir Craig Mackey, one of the most distinguished figures in British Policing of recent decades. Throughout his service he made a significant contribution to the reputation of policing in general, culminating during his time at the Metropolitan Police Service, where he took a particular interest in the choices being made around technology to support his officers and staff to enable more effective policing and better engagement with the public.

Since leaving the Met, Craig has written a comprehensive review for the government on how serious and organised crime can be policed more effectively. His report has yet to be published; it will offer significant guidance for future policing in the area that the future Integrated Security Review will be considering, which is how to secure better performance in relation to serious crime.

We believe this thought leadership paper, by a practitioner of such experience, offers value in determining **'Where next for Policing and Technology?'**. The paper suggests practical guidance on 'what to do now and how to do it', in a world that has been altered beyond recognition this year as a result of the Covid pandemic. Historically, policing has found it challenging to achieve change, due to the demands of external factors that have an influence on the service, i.e. ever reducing budgets, maintaining public perception, and complex governance.

Despite this, policing has still implemented some quite remarkable solutions in this drastically changing environment. The police service can no longer be accused of resisting change, especially by using solutions with a heavy technological slant; that will improve operational capabilities and performance in solving crimes, delivering prevention and predicting trouble. It has also re-thought the running of its back and middle offices, and of its estates. Now seeking to reform its communication with the public and bring its performance in line with both public and business expectations of how, and through what mediums, communication should take place.

Sir Craig Mackey explores how the police service can use the current appetite for radical change to improve the performance of its mission. He pays particular attention to how the police, in partnership with others, within both the public sector and industry, can deliver improved performance through exploring and sharing data and making the most of the insights that are emerging from the evolution of artificial intelligence and machine learning.

The paper makes a useful examination of some of what has gone wrong in the past. Some now seeming essential in a number of the areas of risk exemplified by the Covid pandemic, even though Covid is more of a 'slow burn' crisis than a number of the other threats that appear on the National Risk Register. Along with other opportunities, the police are always exploring more effective command and control systems and Leidos are helping them in this regard. The aspiration for comprehensive cross-country, cross-force, cross-agency and cross-blue light coordination is still to be achieved, but as technology evolves so does the opportunity to reach the end goal.

Leidos has particular services to offer to the United Kingdom and its citizens in this period of stress and uncertainty. Its core mission is **to make the world safer, healthier, and more efficient through information technology, engineering, and science**. This emphasis on engineering and science differentiates its approach from many organisations in the IT business. This is the context in which Leidos has been working with Cityforum which believes that engineering mindsets are important for success and to avoid the critical reviews that watchdogs such as the National Audit Office frequently give of government projects, not least to those in policing. The Covid crisis in 2020 has seen some spectacular failures in important sectors such as health and education that have caused public consternation and could, if they became the norm, do damage to UK digital ambitions. Leidos has made significant contributions to a number of the positive health developments

that have been seen in 2020, including in bio-medical research and in the use of data to transform healthcare. In mapping the state of the country, and the trends governing its future, the Office of National Statistics has a critical role to play and Leidos is assisting the ONS in moving from a paper-based approach to the census to one that is digital, in the expectation of greater efficiency, better performance and faster access to the data that will help the government in its future planning.

This report '**Where next for Policing and Technology?**' is designed to be read by decision makers and its recommendations are to be discussed by Sir Craig and others in a podcast and webinar series being developed by Cityforum as part of its work on the leadership of policing. Leidos will be contributing to these discussions. This Report will then be open to analysis and the making of recommendations by those responsible for future policing including Chiefs, Police and Crime Commissioners, Home Office and other officials. It forms part of an effort, encouraged by Leidos, to secure improved policing in a climate where public agencies work together to exploit the technology that is now available and businesses provide the digital and other expertise to improve the way it is achieved.

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# Where next for policing and technology?

## INTRODUCTION

The Covid crisis has offered a unique catalyst for change in the way the public sector uses technology and 2020 has seen policing use the demands of the time to make quite radical changes in the way it delivers its contribution to law and order, doing this in a way that has not led to any dent in public confidence. During the pandemic policing has had to adapt, innovate and be flexible to maintain a critical public service in the face of unanticipated challenges. Digital services have been a key part of the response. This was evident in the initial crisis response in command cells and resourcing plans, the move of back and middle office roles to remote working, and the rapid application of digital tools and technology. Ideas that were already forming were accelerated. The experience of these months will provide valuable learning for policing as it looks to the future. There are both challenges and opportunities. Some old challenges will inevitably resurface, and a spending review this year will test the ability of the sector to articulate its case for investment and change. There will be discussion again of force structures, the role of policing and police effectiveness. With legitimacy, the use of police powers, race and ethics continue to be major talking points.

## PURPOSE OF THIS PAPER

The paper looks at the future of policing and its relationship with technology, and the lessons to be learned from rapid development and implementation of digital services during the pandemic. It will concentrate on the strategic frameworks that are essential to the effective delivery of technology. And it will explore issues fundamental to the delivery of effective change including:

- ▶ making governance work
- ▶ securing investment
- ▶ delivering leadership skills
- ▶ improving relationships between technology providers and those delivering the service
- ▶ increasing police understanding of suppliers and supplier understanding of the police

It will argue that the level of change, the investment, and the depth of skills and expertise required is not available everywhere in policing. *The answer to 'where next for policing and technology?' requires strategic thinking about where and how capabilities are developed, who pays for them, who manages access, and in how collaborative arrangements are developed and governed.*

Technology projects go wrong in all kinds of organisations; and policing has had its share. Experience shapes the formal governance processes for future projects and programmes; and also colours attitudes and appetite for risk. Grand visions of the digital future for policing imagine digital services for staff and the public, anything embracing machine learning and advanced artificial intelligence, chat bots and digital assistants, automation of processes, different ways of storing and exploiting data and analytics. All of the aforementioned technology is already technically possible, and much is available now. The challenge lies in implementation including funding, managing the business change, and bringing together the necessary skills and expertise; and in addressing the impact on the citizen and those providing the service.

***Science and technology revolutionise our lives, but memory, tradition and myth frame our response (Arthur Schlesinger)***

Technology has been a key feature of the police response to the pandemic. Much has been written about the roll-out of digital services in areas such as the use of industry-standard collaboration tools, digital service for the citizen through single online home, innovation in gathering evidence via Skype interviews, and the electronic transfer of data and information. This has been valuable, but the challenge is to move faster and further within the same budget envelope. Three factors are driving the need to use digital technology and tools to improve processes and exploit large data sets:

- ▶ **community expectation:** the public expect policing to be able to perform its functions in ways that fit with daily online experience
- ▶ **information overload:** the risk of overwhelming officers and staff with data and tools
- ▶ **speed:** in the face of rising demand and expectations on policing, slow systems and processes are not acceptable

Successful digital delivery is about getting the balance of spend right across people, processes, and technology. Emphatically, it is not simply about buying the newest technology.

## GOOD GOVERNANCE IS VITAL....

Governance takes practice, time and understanding, coupled with systems that incorporate strategic planning, risk management and performance management. It must evolve and be qualitative not quantitative. It must not be measured in numbers of meetings or papers. Getting the process of governance right for technology and change is critical. It requires at the outset a shared understanding of strategy and ambition, and an appreciation of risk.

## .....AND THE FUNDING IS TIGHT

Then come the difficult conversations on finance - can we afford this? Is it sensible to do it ourselves? What are the other options? What will we not be able to do if we spend this money in one way rather than another? Do we have the skills available? Are we going to buy the service in or build it ourselves? The up-front thinking needs to focus on outline business cases and returns on investment before describing solutions. This requires leadership combined with strategic thinking and understanding if tech transformation and business change are to be successful. And here a cautionary note - programmes will often outlast the original decision-makers. This raises the problem of continuity of senior ownership and accountability during the delivery phase of programmes and projects. If the decision is to go to market for a major commercial off-the-shelf policing solution, then at least three to five years' work could be required.

## COLLABORATION

'Partnership working' is a popular phrase in strategy documents but is often poorly defined and vague when it comes to implementation. There are some good examples of effective police-to-police collaboration, police-to-public sector and police-to-private sector working. But sadly, there are also examples where it has not been successful, because the costs and incentives were wrong, or the governance and service provision was weak. To be an effective organisation requires the ability to be a good partner, capable of building successful collaborations and of being able to use the products, services and skills available from across the public and private sector in innovation and implementation.

A current example of the dilemma for policing is provided by the transformation of back office systems. At a time when some are using high-end cloud-based solutions to supply their Enterprise Resource Platform (ERP)), others are either 'making do' through tweaking existing solutions, or are actively seeking alternative solutions. The time and expenditure spent in going to market, customising and rolling out new solutions is often not reflected in the accompanying business cases. This is wasteful and duplicative. The constituent processes and

services of an ERP solution for policing should be agreed across the forces involved. These include running finances, purchasing goods and services, pay, recruitment and performance management, and support for learning and duties. Does policing have the willingness, tools and management time and space to look at common solutions? Can funding, governance and business processes be aligned? Or is this another idea whose time has still not yet arrived?

## IMPLICATIONS FOR EVERYONE...

The climate and challenges referred to thus far in this paper have implications for everyone in policing, for their leadership skills, and the attributes and experience required if they are to perform successfully in the future. The demands on police officers and police staff are changing fundamentally, not least to meet the challenges of a more technologically driven service. Successful delivery of this dimension of the policing mission will require:

- ▶ **an enterprise view:** the ability to see and understand policing across the whole of UK public and private systems
- ▶ **strategic change:** the ability to think through and manage policing in a way that improves outcomes for the public and for policing
- ▶ **understanding of options:** choices and costs particularly in relation to clever utilization of data
- ▶ **innovation and curiosity:** a mix of original thinking, experimentation, adaptation and steady or rapid evolution to enhance the quality of the service offered resilience: the determination and ability to look outwards and remain open to change when under pressure from events
- ▶ **partnering:** the capability to work confidently with others to develop programmes and projects
- ▶ **governance:** the ability to work within governance, audit, and assurance processes to ensure the continuity and success of projects
- ▶ **realism:** the ability to work within policing structures, frameworks, and financial envelopes that are unlikely to change significantly whilst political priorities are elsewhere

## ETHICAL AND LEGAL CHALLENGES

The increased use of technology adds to the ethical questions facing the police and also the absolute need to maintain the public's trust and confidence in using data for decision making. The growth of artificial intelligence, machine learning, and algorithmic choice all provide potential ethical challenges to policing, and the proliferation of disinformation and massive growth in the use of social media are providing new opportunities to question how policing is done, and at speed. It is not possible for the service to shut itself off from these developments. The reality is that these technologies are already being used to facilitate crime and require a policing response. Furthermore, public expectations and societal norms are changing. The public expects the police to have the same access and ability to utilise technology as the general public. The use of big data and the ability to link databases together is something the citizen expects the police to be able to do. Policing must embrace new technology, but it needs to understand better the ethical issues arising from doing so. There needs to be a transparent and comprehensive review of the use of data and related ethics; the implementation of a data ethics framework that is shared with the public will only ensure continued confidence and support of policing, enabling the police to continue to keep the public safe. There are important issues of privacy, fairness and accountability involved when policing relies on algorithms, AI and facial recognition to inform decisions that can have an impact on the liberty of the individual. Legal frameworks are not keeping pace with the speed of change which technology is enabling.

Through the use of ethics panels and its work with experts, academics and think tanks, policing is exploring the ethical impact and effect of new capability. We can expect to hear police leaders talking more about the details of the algorithms and the potential for bias, but they may find themselves struggling to explain what is going on 'inside the box'. These are complex processes and the developers of algorithms may be reluctant to submit them to scrutiny. This suggests a need for caution, and a serious effort by the police service to maximise the oversight, governance, and ethics of the new capabilities as they are introduced. Placing inappropriate trust in algorithms, particularly those that exploit machine learning, could undermine their potential contribution to improving performance. It is important to remember that bias is always driven by people. Algorithms need to be continually checked, balanced and developed to ensure the correct outcomes are achieved.

### ***Failure is not fatal, but failure to change might be (John Wooden)***

It is not just technology, people and skills that are changing. The nature of work and the work environment are changing too. The pandemic has asked fundamental questions about how we organise and arrange work. Is it something that has to be done in a particular location or particular office? What needs to be done in centralised establishments in cities or town centres? What can be done remotely at home or in hubs? These questions are engaging everyone; policing is no exception. Survey data is highlighting the reluctance of the UK workforce to return to the office full time. Whether this is short term and pandemic related or signifies a wider change in expectations is not yet clear. New technology offers opportunities to bring more people into work in different ways and to provide more opportunities for those who cannot travel or are vulnerable. But there are some who find home working difficult or disadvantageous, and their well-being also matters.

We are likely to see employee choice and increasing levels of flexibility offered as a means of attracting and retaining key skills. The expectations of those who work in policing will be no different. The future IT specialist or accounts team member may only want to work where they have access to modern digital tools and where they can expect to spend no more than two days a week in the office. But what are the implications? For example, how do you bring on new joiners when people work remotely? How do you manage people who cannot work remotely or do not want to? What do you do in a sector like policing where so much is built around the team and the personal interactions of the people working in the service? What importance should attach to the informal information exchange that working with others in the office makes possible? Technology has some answers but cannot substitute entirely for human interaction. Services such as policing will require to develop flexibility while keeping the togetherness that is essential for its successful delivery.

## **A DIGITAL DIVIDE?**

As we move towards a spending review, we can speculate on the possible outcomes for policing. It is unlikely, given other pressures on the public purse, that policing will see any major real term increase in funding. The cash to support the twenty thousand uplift in officers and to deal with particular pressures around national programmes may be the best that can be hoped for. This means that as policing looks at the money available to accelerate digital change, a digital tech divide is likely to emerge. Policing organisations are at different stages in their technology journeys. Some work with a base budget in their tech space that covers the care and maintenance of what they have, while big new spend must compete against other priorities in a capital plan. Some have already made the investment and started down the path to a tech future but are now looking at refresh and replacement costs, which they cannot meet alone. Consideration of future operating models for policing will focus on where capability sits; the balance between local, regional or national; who provides it, public or private; and how is it paid for.



## CONCLUSION

Decisions about future operating models require policing to balance available skills, demand and risk, and to manage the tradeoffs necessary in a resource constrained environment. There are detailed but critical decisions which may come out differently if agreement to fund is based on the funding formula or on Net Revenue Expenditure. This in turn might fundamentally change the choice of partners. When it is decided to build a national capability, how do you make it accountable and responsive to the needs of users? How do end users influence design and functionality? In the experience of the author of this paper these issues, if not addressed before embarking on the work, surface quickly and erode confidence in the programme. A case in point is Emergency Service Network (ESN), the new radio replacement. Over budget, over promised, and under delivered, it shows how complex national capability development can be. Policing and its stakeholders need to consider whether there are different ways of delivering national capability and bringing it much closer to policing and the requirements of end users. The choices around service standards and costs needs to be a series of conscious choices and steps and not merely an exercise to meet a budget that has been set.

Policing has the opportunity to develop its own vision for technology and to design its digital future. This paper has focused on a strategic conversation about how this is to be done, including the need for collaboration and partnership, the nature of the future workplace and the people, skills, governance, and finance required. Private sector and technology companies need to spend time building their understanding and awareness of policing at a tactical and strategic level. The police service wants to work with engaged and understanding partners. This requires commitment from the private sector, and in return there are opportunities for all parties to benefit. Private sector companies that think in terms of engineering could have particular value in helping police leaders develop their vision and adapt at a pace that gives the community confidence and builds up workforce satisfaction.

2020 has seen an abundance of changes in the ways the public sector has sought to deliver services. Some of these have been well received and others that have had an adverse reaction, particularly where what was promised in terms of quality and fairness in delivery have not been achieved. Policing has moved its ways of doing business virtually without raising doubt and scepticism and has maintained a degree of popular acceptance and support that is essential in the achievement of its mission. The period we are now entering as 2020 draws to a close, presents abundant further opportunities for policing to use data cleverly and with realistic decision making. The service and the community can both benefit.

## CITYFORUM

Cityforum has been contributing to public policy debate since 1990. The organisation comprises a small, trusted, independent group of experienced individuals, respected for their intellectual honesty, knowledge and extensive contacts spanning the private, public and not-for-profit sectors at all levels. In addition, it works closely with a large network of associates, providing depth, breadth and genuine expertise and practical experience. They include a former Cabinet Minister, a retired Member of the Episcopal Bench, public service officials, military, police, intelligence and security specialists, senior medical figures and business executives, academics, journalists and publishers. They contribute in London and elsewhere to Cityforum events and to the studies we undertake, including interviewing at all levels in organisations and sectors of interest.

From its inception working with the Bank of England on the Basel Accords; with the Reserve Bank of South Africa on the transition from apartheid; hosting and planning with the Scottish Government the Adam Smith Bicentenary; Cityforum has been active in an increasing number of areas that now include collaborations in security, policing, crime and justice, emergency services, critical national infrastructure, cyber, privacy, health and social care, transport, financial services, regulation and energy.

It researches and publishes reports and develops and hosts events in the UK and, where invited, around the world. As part of its bespoke advisory and strategic guidance service the organisation also acts as a 'candid friend' to senior public-sector executives, and undertakes studies and reviews, providing sound impartial advice and specialist judgement to assist in meeting the enormous challenges faced by the public service today.

With over 25 years shaping strategic thinking, building understanding and adding value within and between diverse groups, the organisation has a proven track record. Its highly regarded round table discussions and smaller conclaves are well known both for bringing together an enviable mix of decision makers and practitioners and for stimulating new thinking in response to some of the most difficult contemporary public policy challenges.

Cityforum has a particular interest in working with the police and holds three or four Round Tables a year on strategic, technological, human resources, value for money and strategic communication questions affecting the service. It also undertakes specialist advisory and monitoring work for individual Police and Crime Commissioners, and Chief Officers. This has been particularly useful when PCCs - Police and crime commissioners and Chiefs require studies to be undertaken by a seasoned group of specialists who operate methodically and quickly, and have particular skills in interviewing at every level in the organisations requesting assistance. Its reports are succinct and written in readable English rather than in management speak loaded with acronyms.

For more information please visit [www.cityforum.co.uk](http://www.cityforum.co.uk).

## LEIDOS

Leidos is a Fortune 500 global IT, engineering and science business with over 38,000 employees, reporting \$11.9bn in revenue in 2019. Our vision is to become the global leader in the integration and application of information technology, engineering and science to solve our customers' most demanding challenges.

Leidos UK is a strategic supplier to the UK and Scottish governments and a leader in IT solutions to the national security, defence, transport, logistics and energy sectors. It employs 1,100 people in the UK with key offices in Bristol, Farnborough, Glasgow, London and Whiteley.

Chief Executive Simon Fovargue MBE is currently re-positioning the business for rapid growth and innovation, investing in new capabilities such as UK software factories to deliver transformative digital services to customers. Key programmes already include transforming the biometrics capabilities for the Home Office, digital services at the border and implementing a new command and control system for the Met Police.

Analyst Firm GlobalData rates Leidos UK as a Top Performer in Public Sector 2019, rated as number 1 in the UK for 'delivering on its commitments on time' and number 2 in the overall supplier ratings for UK Public Sector.

For more information, visit [www.Leidos.com/uk](http://www.Leidos.com/uk).