The future of the justice system in the UK
Innovations to improve societal outcomes

Capita

I. Introduction:
Digitalising justice

The justice sector is facing many ongoing challenges. From a continually growing prison population to the rising costs of incarceration, finding ways to innovate and adapt is crucial to reducing reoffending. All of these need to be delivered within complex legal policies and frameworks that are subject to frequent change.

While these are great challenges, they also present opportunities to innovate, especially with the rising capabilities of technology. One area which will likely see ongoing adaptation and development across the justice sector is in the use of electronic monitoring (EM).

EM is a powerful tool that can be used to keep the public safe and reduce the risk of reoffending, but it is not enough to rest on current laurels. Technology advances, data evolves and society changes. This needs to be keenly reflected in the justice system to continually provide criminal justice agencies with a cost-effective mechanism to prevent reoffending, of which EM is a significant aspect.

In this report, we will look beyond the current state of the justice system in the UK and focus on the expectations and opportunities that will likely be seen across the system in the coming years. We will also take a closer look at what the role of EM in the justice system could become and how the focus will switch from one based purely on numbers, to a people-first approach. This will be framed within our areas of expertise - as a leading provider of EM services in the UK - and the ongoing ways that organisations can use data, automation, predictive models and customisation to not only improve the service, but also reduce reoffending.

Finally, based on our experience in delivering EM in partnership working with the Ministry of Justice (MoJ), we will emphasise the importance of improving access to technology broadly across the sector and expanding the different forms of technology that can be utilised alongside EM to provide a more impactful service.

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II. Expectations for the UK justice in 2023 and beyond

The justice sector in the UK is constantly evolving and will face a litany of new challenges throughout the coming years. The system itself, as has been the case across all industries and sectors in recent years, has been under pressure to adapt to emerging technologies that have the potential to redefine the established ways of operating. However, this need to change and update is also situated alongside the need to address ongoing issues that have impacted the sector for a significant period of time. This includes, but is not limited to, prison overcrowding and long delays causing logjams in the court system, accentuated by the limited availability of resources.

New technologies are enabling the justice system to help tackle these challenges. Tools such as video conferencing and the use of digital evidence have already seen success, however this type of technological implementation is set to continue in 2023 and beyond as it provides departments with the ability to take a more informed, preventative, and data-driven approach to reoffending.

Digital technologies are increasingly pervasive in wider society, profoundly affecting social interactions and dynamics. In this context, the justice sector needs to constantly evaluate its modes of delivery, scope of action and ways of working to adjust to changing expectations and needs. Moving forward, digital technologies should be considered a core element in the design and delivery of EM public policies, especially through the development of new ways of interacting with citizens to provide greater public value.

Effective digital transformation requires the justice department to take a data-driven approach, that utilises the available technology and empowers closer collaboration, both between internal departments and teams, but also to help reassure the public.

We expect the following trends to emerge in the coming years:

Having more contextual data and information on those being monitored is one of the key benefits that technology provides the justice system.

Expectation #1:
The foundations being laid for ongoing digital transformation

For a digital transformation strategy to generate consistent and sustainable results over a prolonged period of time, proper planning is fundamental. It simply is not enough to just invest in new resources, devices and technologies and expect systemic issues to be resolved overnight. As outlined in the MoJ digital strategy 2025 paper, there needs to be a plan in place beyond just the basic investment in technology and resources, as organisations need to be able to anticipate their future needs while tackling their current problems.

Looking ahead, we can expect to see more organisations prioritising building the bedrock on which ongoing digital transformations can be built. For digital transformations to be successful across the justice sector, the impact must filter through and permeate every team and department. This foundational building process requires leaders to emphasise an open-minded approach as well as being fully aware of how data, devices and technology will impact their whole organisation, rather than just a specific team or departments.

Expectation #2:
Strategies to unify data sets

As more and more technologies are used, the amount of collected data rises. Having more contextual data and information on those being monitored is one of the key benefits that technology provides the justice system. However, building a robust and reliable information set becomes increasingly challenging when this data is stored in disparate sets and siloes are spread across multiple departments.

Being able to unify these data sets and make them more widely available will not only help paint the full picture of an individual who has been selected for EM, but also allows for more specific actions and decisions to be made regarding future actions.

Expectation #3:
Personalised profiles
and probation

Technology can shine a light on data to reveal hidden patterns. Once unified, historical and new data sets can be combined to create and build patterns, models and personas for a variety of different offenders.

When these models are fully operational and effective, an opportunity emerges to apply a more targeted, data-driven and predictive approach to EM, rather than relying on a catchall approach. In practice, this could lead to situations where – based on established personalised data sets and profiles, the court may be able to suggest a targeted EM for a specific individual based on modelling of their circumstances. By personalising the process using unified data, there is a greater likelihood of reducing the chance of reoffending.

Expectation #4:
Devices beyond EM

The proliferation of other forms of technology – both in terms of hardware and apps – is likely to grow and be used alongside the information provided by EM. It is no longer just the monitoring device itself that is available but a wide range of other applications that can be used alongside it. This includes apps on phones that can present GPS information on a monitored individual's locations, or even on a victim's location, with movements that can be plotted together to determine if officials need to step in to prevent potentially dangerous situations from developing.

When combined, the EM and other devices can help present a much clearer picture of actions, movements, and patterns to create a fully realised persona and data set with fewer gaps. Moving forward it is likely that EM will become one piece in a much wider Internet of Things (IoT) sphere that is used to assess and track those on probation.

Expectation #5:
A citizen-centric view

EM in the future will entail providing services that extend beyond the act of EM alone. This will mean taking a more citizen-centric view of monitoring to prioritise both the safeguarding of individuals in the public and officers in the field.

In this case, a citizen-centric view could involve tracking and monitoring what might be considered odd behaviour. Whilst there may not be an outright sign of probation being broken, it could still be an indication that fits with previous probation breaking behavioural patterns. Focusing on data patterns and breaches that fall outside of the standard monitoring metrics is a way that the justice sector can reassure the public that monitoring is happening, patterns are being noticed and their safety is being prioritised.

Key challenges
for justice leaders in the future

Forces need to get more value from their data to help answer important questions and solve critical problems quickly.

For leaders across the justice system, the coming years will require the skilful navigation of an ever-evolving landscape within which there is no definitive end point. New challenges will emerge in conjunction with new technologies, and leaders need to understand which are the most pertinent to solving their most pressing need.

One of the most pressing challenges is the limited resources available to the system. This can manifest in a variety of ways. From staff shortages and the use of outdated technologies to broader budget constraints that stifle innovation capabilities. These limitations regarding resources make it difficult for leaders to facilitate the necessary digital transformation needed to make lasting systemic change.

However, even with resources in place and available, their benefits can be negated without proper staff development and training. Without this, the link between people and processes becomes strained and the true value of EM becomes lost. Within this is the challenge of broader coordination. It's key that visibility and collaboration across the multiple stakeholders is enabled to help remove the siloes between different departments that prevent the unification of data sets. Building and maintaining effective partnerships with other justice agencies and organisations that lead to ongoing innovations across the justice system is a further challenge that leaders will have to face moving forward.

Amidst all this technological development though remains the wider issues of compliance and privacy. Leaders will be required to continually balance the need for monitoring and surveillance without infringing upon the privacy and data protection rights of offenders and the public. As technology enables more data to be collected, more specific information to be acquired and more people to be monitored, measures need to be in place to protect the privacy and data of offenders, while still generating the key information EM provides.

Facing fluctuations in funding, an ever-changing demand for service, increasing public expectations, evolving and complex types of criminal activity and new political initiatives, police forces need to be able to do more with less. Forces need to get more value from their data to help answer important questions and solve critical problems quickly.

These challenges are not new to the justice system, but the power of technology, AI and machine learning adds a further layer of complexity to an already complicated issue.

Leadership priorities

To address these challenges, leaders in the justice system must prioritise close collaboration between other agencies and organisations with a focus on the implementation of new technologies. These tools, including EM, data analytics and the wider usage of AI, can help to improve organisational efficiency and effectiveness at preventing reoffending as there is an exponentially growing understanding of offender behaviour.

By combing people, processes, data and technology, the justice system will be able to provide enhanced, more specific levels of service that mitigates reoffending and ensures that the justice system is able to protect the public and keep communities safe. This is a central priority for all areas of the justice system and it is in this regard that EM has the ability to revolutionise the entire sector.

Our work with EM

We work in complex multi-partner environments, including the electronic monitoring service (EMS) for the Ministry of Justice, designed for people given a community sentence, awaiting trial or on early release from prison. Since 2014, we have worked as the field and monitoring service provider, as part of a multi-vendor delivery model, where MoJ provide the service integration.

We provide customer, subject and citizen-facing services including the contact centre, monitoring service, and field force. Our stakeholders receive movement and curfew monitoring data, back-office processing, and document management of residual non-digital case work.

Advancing data and automation

We use data and automation to assess offender behaviour and improve the EM service. We apply advanced analytics to identify patterns of behaviour that indicate a risk of reoffending. This information is used to tailor the offender's management plan, providing additional support and monitoring where needed to help provide a higher level of public safety.

III. People-first prevention

Preventing a crime is better than reacting to one after it happens. To consistently enact a preventative approach, accurate and fast predictions must be made. This requires clear, up-to-date and fully formed data sets in order to build accurate models of behaviour, and therefore spot anomalous or potentially dangerous actions before they happen and escalate.

This could be the consistent breaching of a curfew, the appearance at places an offender has been banned from attending or encountering individuals that would constitute a probation violation. But for this information to be valuable, the justice system needs to take this data-driven approach and look beyond the numbers to the individual they reflect.

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Beyond the numbers: Focusing on the individual

> By focusing on the people behind the data, we gain a more complete understanding of what factors can lead to an offender breaking probation. Combining data with a people-first mentality creates a more holistic approach to rehabilitation and probation, and takes into account all the factors that directly and indirectly impact those under EM.

The focus areas that bring data and human elements together include:

1

Being smarter in the use of EM

Once you have the EM technology in place the priority becomes about how it is used most effectively. By applying EM in a more specialised way, based on the historical data of similar offenders, models can be created that can be applied to an individual rather than a group. Anomalous behaviour for someone committed of one crime may not be considered anomalous behaviour for another.

Here it becomes about applying EM in the smartest way on a case-by-case basis, rather than having one broad policy for all individuals on probation that can quickly become bloated and unwieldy to track and manage.

2

Customised curfews

The standard curfews limiting movement at night may not mitigate offences as accurately as they could. The assumption that crime only happens in the hours of darkness is not only outdated but incorrect, and in some cases detrimental to rehabilitation. In this instance, EM can help to personalise curfews to the individual.

Take the example of a person with previous convictions for football hooliganism. Applying a standard curfew to them is not effective if they are able to attend games that fall outside of set timings. The times of matches vary, some could be on weekends during the day, others may be in the evening during the week, but the key aspect is that this individual's curfew should be focused around matchdays where they are most likely to reoffend. By applying this customised approach to curfew, EM has a much better likelihood of preserving the safety of the public.

3

Tailored to the device wearer

Considering the type of individuals most suited to EM in the first place is a key element of preventing reoffending. Not all offenders are the same and treating them as such will only lead to reoffences. It is important to find ways that EM can be tailored to the individual based on the crime they committed.

Could an individual that is considered less of a threat to the public based on historic data have an EM that takes this into account? Is an individual with convictions for financial crime different to one with convictions that relate to violent acts? Does this individual even need to be under EM in the first place? In this instance, determining the best course of action involves considering both the individual and the data together to create a full picture that helps define the most appropriate course of action.

4

Understanding the risk factors

As more technology and devices become commonplace in EM, understanding what is and is not a risk factor becomes a priority. With a greater combination of touchpoints and data sets being utilised, individuals will be able to highlight and understand what potential risk factors might look like, and alert relevant authorities when they appear.

5

Safeguarding policies

Safeguarding the public should be the highest priority when it comes to EM. To ensure this is kept to a high standard, EM should look beyond just the offender and emphasise wider protection.

This can be done by monitoring corresponding GPS locations through smartphone apps to determine the proximity of domestic abuse victims, or alert officials when an individual with drug dependencies has not left home for several days. Here EM can use data, patterns and AI to spot such trends in a way that prioritises the broader public safety and instils confidence in a system that has their best interests at heart.

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IV. Where we provide support

Our domain knowledge and experience of working with stakeholders across the justice system, as well as our proven ability to manage high volumes of subjects in a cost-effective way, makes us well-suited to support the MoJ's future EM ambitions.

Our focus on innovation and use of digital processes means we can provide a service that is tailored to the specific needs of each case, a factor which is particularly important given the likely increase of more personalised probation services. With this approach and our ability to handle large and complex projects that deliver results, we are able to help the MoJ achieve its goals of reducing reoffending and protecting the public.

It is clear that no silver bullet exists to prevent reoffending; however, by using data and automation to assess offender behaviour, the overall level of EM service can be continually improved, particularly as it pertains to the benefits of the EM service.

Our principles of integrity, safety, teamwork, respect, and accountability delivers an effective and reliable service against the MoJ's aims to reduce reoffending and protect the public across the UK. Moreover, this has been emphasised in our recent collaborative work with the MoJ to improve and extend the EM service. Recently, innovative changes such as supporting Police Scotland's digital transformation, data fusion for the Greater Manchester Police, and the use of GPS tracking to help prevent violence against women have seen impressive successes.

Case studies

1. Building the bedrock for digital transformation

The unification of disparate data sets is a key step in building a solid foundation on which a digital transformation can occur. This was the issue facing Police Scotland who wanted to combine over 40 different data sources from across eight legacy regional forces into a single integrated system. This required a migration strategy that utilised Extract, Transform and Load (ETL) methods, alongside the skills and knowledge of our policing subject matter experts.

In collaboration with Police Scotland, following the proof-of-concept, we developed a migration strategy that was achievable, flexible and repeatable. The successful migration of legacy data, region by region, has been taking place since 2021 and will be completed in early 2023.

Through this innovative approach, information from over 40 legacy systems can now be accessed by over 25,000 police officers and staff, as we continue to work closely with Police Scotland to reduce crime and keep the people of Scotland safe.

2. Data fusion

Greater Manchester Police (GMP) knew it needed to get more value from its data, but it was residing in disparate legacy systems, in disconnected and often inaccessible locations.

We worked with GMP to implement a new data-led solution that improves performance, drives efficiencies and cuts crime by delivering trusted information. By bringing together data from across the Force into a single trusted source, it allowed GMP to better report and analyse vital information, and interact with a new, integrated Operational Policing System (iOPS) system.

The new data warehouse streamlined and automated analysis and performance reporting processes through a suite of engaging reports and dashboards. In doing so, not only did we meet the demands of operational policing, but we also helped GMP react better to Home Office requirements, data protection and GDPR.

3. Using GPS software to combat domestic abuse and violence against women

As well as creating one single source of truth, the GMP also wanted to cut down administration time. Previously, when attending a domestic violence incident, officers would have to work with the victim to complete a questionnaire with 27 questions. Not only did this waste police time, but it could also come across as overly officious, intrusive, uncaring and added a layer of unreliability.

In response to this issue, we created a proof-of-concept app using a variety of monitoring solutions, including GPS tracking. This could triangulate the movements of various people involved in a domestic incident and prioritise the safety of the victim. This could be done in several ways including advanced warnings that trigger calls to authorities where conditions are breached.

The app can also automate further checks and provide risk flags, enabling officers to provide the right level of support to the victim by taking into account their full history and situation, helping to prevent potentially dangerous situations from taking place.

What's next for the justice system?

1. Generating value from collaboration

By joining up systems and the improving visibility and transparency of data between teams, departments and organisations, the justice system will be able to offer a more holistic, data-driven approach to EM. When all points are joined together and able to share data and information freely, the value of EM will become much more impactful. For the justice system generally, this becomes a point where the sum of parts adds up to greater than the whole.

2. Improving access to technology across the sector

It's been proven that access to technology helps reach targets that revolve around efficiency, accuracy, and cost saving on a reliable basis once implemented. Moving forward, it will be about ensuring everyone has access to the new technology and adopts it in a way that makes success sustainable without becoming a burden on the bottom line.

3. Expanding services and technology

As technology evolves so must the approach to EM. This could be through updating apps on smart phones, utilising new methods of online communication, pattern spotting using AI and ML. For the justice sector, it will be about expanding the available services and technology in order to provide real-world safety benefits that can be used alongside physical tags.

4. Giving people the tools and information they need

Technology and training go hand in hand. It's all well and good having the technology in place but if there is no one there to understand it or use it effectively, it's benefits quickly become redundant. In order for services to be successful, they need to be supported by individuals who understand the benefits of the technology, are trained to use and apply the tools correctly and can maximise its impact.

V. Future outlook of EM

EM capabilities will only be limited by available technology and resources. In the future, the act of monitoring alone will simply become part of a wider scope on integrated, interconnected technologies.

While effective, EM is not a lone solution to be broadly applied in all instances, but rather a cog in the entire rehabilitation machine that combines people, processes, data and technology. The ongoing rise of digital platforms and networks, cloud computing, mobile technology, artificial intelligence and the Internet of Things are rapidly transforming societies, and therefore are transforming justice. Failure to adapt accordingly to this changing environment exposes both departments and the public to significant risks.

The data EM can provide – when unified across different touchpoints – builds a clear picture of current patterns and therefore can be used to predict future behaviour. More touchpoints and working together cohesively can help to deliver more specific and tailored EM.

With this evolution ongoing, we are uniquely positioned to have both the innovation capacity to drive improvements at the MoJ, as well as the contextualised expertise to support with the necessary steps needed for effective digital transformations. By offering expertise that is always contextualised and data-driven, innovative methods of support can follow.

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