

# Digitising Justice: Putting data at the centre

Effective use of data and technology to support a seamless citizen experience across the criminal justice landscape.

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# About techUK

techUK is a membership organisation launched in 2013 to champion the technology sector and prepare and empower the UK for what comes next, delivering a better future for people, society, the economy and the planet.

It is the UK's leading technology membership organisation, with more than 850 members spread across the UK. We are a network that enables our members to learn from each other and grow in a way which contributes to the country both socially and economically.

By working collaboratively with government and others, we provide expert guidance and insight for our members and stakeholders about how to prepare for the future, anticipate change and realise the positive potential of technology in a fast-moving world.



# Justice and Emergency Services (JES) Programme

The JES programme provides a forum for Justice and public safety stakeholders from national policing bodies and local forces to fire and rescue and Justice partners, opportunities to collaborate with members. The programme creates a platform to understand the latest innovations, problem-solve and develop networks, championing the role technology plays in the supporting the delivery of public safety services.

# Digital Justice Working Group

A member-led working group established in January 2021 exploring opportunities to drive digital transformation across the Criminal Justice System, working closely with partners from the Ministry of Justice (MoJ), Her Majesty's Prisons and Probation Service (HMPPS), Her Majesty's Courts and Tribunals (HMCTS) and the Crown Prosecution Service (CPS).

The working group was originally set up in order to improve collaboration between Justice digital partners and the tech sector, exploring the criminal justice system, end-to-end and the role of technology to create a better-connected justice system, with the user at the centre. The group consists of 37 individual organisations across 3 sub-groups: Digital Courts and Forensics, Digital Prisons, Health and Security and, Probation and Reducing Reoffending.

# Executive Summary

The vision for the Ministry of Justice (MoJ) is to deliver a world-class justice system that works for everyone in society. With the release of the MoJ Digital Strategy 2025, there is a vision for service delivery and the user experience of justice to be simpler, faster and better. For techUK's Digital Justice Working group, data sits at the heart of this vision. Whilst significant efforts have been made to digitise justice services, with change at pace due to the impact of COVID-19; there is still a long way to go with the need for closer collaborative working between Justice partners and the tech sector to overcome barriers to digital transformation.

With multiple agencies capturing important data on disparate systems, data sharing can become difficult and in parallel so does providing the appropriate support. Without adequate data it is not possible for the MoJ or members of the public to know whether CJS departments are operating effectively. Closer collaborative working to join up fragmented systems, improve data sharing, streamline processes and encourage interoperability is vital. Opening up datasets held in disparate systems will help identify the best opportunities for streamlining data, and the use of technology will enable the matching of similar data sets stored under different labels by different organisations.

The criminal justice system (CJS) is complex with those coming into contact with it interacting with multiple agencies. Frequently, we see departments working in silo, but when organisations work in partnership we start to see early effective risk identification, multi-agency action to reduce risk, joint decision making and information sharing. Data and technology are key to ensuring a better connected, efficient and effective justice system end-to-end. A system focused on delivering justice for victims and reducing reoffending.

# Introduction

**“At the heart of the digital and data strategy for probation (and as part of wider HMPPS plans) is a seamless view of the individual starting in court and continuing through their sentence and rehabilitative journey. This seamless view is enabled by more effectively joining up data on needs and risks with users’ rehabilitative outcomes.”**

[Target Operating Model for Probation Services in England and Wales.](#)

In June 2021 the [Declaration on Government Reform](#) prioritised technical knowledge and data across government. There have however, been doubts and challenges around its implementation which includes legacy infrastructure, digital skills and siloed working. All of which highlight the important need for improved public sector collaboration.

The Criminal Justice System (CJS) is complex and how an offender interacts with multiple agencies, moving from arrest, to the court service, into the prison system and out the gates into the probation service is never straight forward.



Sadly, reoffending rates are high and it is commonly recognised by police and organisations across the CJS that a relatively small proportion of the population is responsible for the majority of crime. According to the Prison Reform Trust, '47% of adults are reconvicted within one year of being released. For petty offenders, serving sentences of less than 12 months, this increases to 60%. For children and young people in custody the rate of reoffending rises to 75%'. [Russell Webster estimate](#) 'Reoffending by ex-prisoners costs society at least [£18.1bn per year](#)'. To drive down recidivism and cut the reoffending cycle, it is important to understand the system end to end, and the power of technology to better support users on their rehabilitation journeys. More specifically, this paper explores how to unlock the power of data and technology to transform criminal justice services, putting the user at the centre.

On 8 April 2022 [the Ministry of Justice Digital Strategy for 2022 to 2025](#) was published. It sets out how the vision for simpler, faster and better services will be delivered.

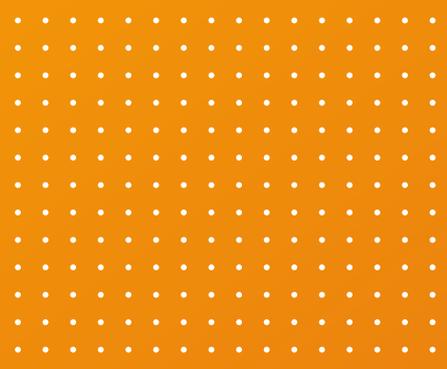
*"With strong digital services as our foundation we can continue with the work we've already started. Seeing all of the data we gather as an asset will help us make decisions that are better informed and offer measurable outcomes. We know that being able to manage and respond rapidly to change is an absolute necessity. As an organisation, we must continually develop our capacity to be flexible and to respond effectively when faced with new challenges".*

Jo Farrar, Second Permanent Secretary, MoJ and CEO, HMPPS

**Data is at the heart of the CJS.** However, with multiple agencies capturing important data on disparate systems, data sharing becomes difficult and in parallel so does providing the appropriate support. Agencies must work together to join up fragmented systems and encourage interoperability. This will ensure better access to data for police forces, courts, prisons and probation services to speed up processes, tailor services and deliver effective and efficient rehabilitation programmes.

**Effective data sharing and data quality to join up offender information.** The criminal justice data landscape is a tangled web. To achieve an end-to-end criminal justice data system, cultural barriers must be worked through to share information from agency to agency, breaking down silos internally, but also externally with the third sector, local authorities, health and education bodies. There is a need to enable the data exchange, understand what data is needed and streamline processes using modern technologies and ways of working. Opening up datasets held in disparate systems will help identify the best opportunities for streamlining that data, and the use of technology will enable the matching of similar data sets stored under different labels by different organisations.

This of course does not come without its challenges and this paper will highlight how the tech sector can work closer with the Ministry of Justice (MoJ) and its partners to respond to these challenges. This will be aided through showcasing the value of technology and demonstrating the role of data in providing a seamless user journey – harnessing new technology, updating legacy systems, improving digital learning opportunities and equipping staff with the right digital tools they need to do their job more efficiently and effectively.



# Digitising Courts

“The digitisation of casework processes is essential if the criminal justice system is to remain effective in the modern environment. It also needs to cope with the impact of criminal offending which can generate terabytes of material”.

Delivering Justice in a Digital Age.

## Policing and justice collaboration

Whilst technology advances, so do the crimes that are committed. Technology has the ability to provide police with new solutions to prevent crime, but it also provides suspects with new tools to commit crime. With digital based crime increasing, we are now seeing an abundance of evidence; from CCTV footage and social media data to data stored on mobile devices. Rather than just 'evidence' we now have 'digital evidence' and therefore a need for new ways for this evidence to be used, managed and shared efficiently, effectively, ethically and securely from policing into the Crown Prosecution Service (CPS), with courts and defence to ensure justice for victims.

*"Efforts to reduce the disparity between the number of rape and serious sexual offence (RASSO) cases being reported and those going to court have taken a step forward, as a blueprint to drive even closer working between police and prosecutors has been published today [January 2021]. The [Joint National Action Plan between the Crown Prosecution Service \(CPS\) and National Police Chiefs' Council \(NPCC\)](#) sets out a wide-ranging plan for greater collaboration to improve the response to RASSO cases. It is designed to ensure victims have confidence in the criminal justice system and receive the best possible support and care whilst investigations and prosecutions take place".*

A recent joint inspection of the police and CPS's response to rape findings highlighted several key challenges. These included poor communication with victims by Police and prosecutors, with information provided to them often repeated, confusing and sometimes absent altogether.

In addition, the findings highlighted challenges around delays and the absence of data on the protected characteristics of victims.

As new technologies are introduced, it is important for the tech sector and departments across the CJS to:

- work backwards from the problem we are trying to solve and take an outcome led approach to procurement;
- discover what technology can do to support the user and streamline processes and;
- understand how the data will be produced or uncovered through the solution implemented and how to get the most out of that data.

## Improved partnership working

[Dr Byrom's report 'Digital Justice'](#) highlights there is "no better moment than now for improving the collection and sharing of data". The £1 billion courts reform programme creates an unprecedented opportunity for sharing data about the justice system to improve access to justice.

Cooperation between agencies is vital in order to prevent cases slipping through the safeguarding system particularly involving incidents of violence, sexual assault and domestic abuse. [Home Office figures](#) reveal that 'fewer than one in 60 rape cases recorded by the police in 2020 resulted in a suspect being charged' and 'while there were 52, 210 rapes recorded by police in England and Wales in 2020, only 843 resulted in a charge or a summons - a rate of 1.6%'.

When organisations work in partnership, we start to see early effective risk identification, multi-agency action to assess, manage and reduce risk, joint decision making and information sharing. We see organisations such as the Police Digital Service (PDS) working closely with the Home Office, techUK and other partner organisations to ensure the processes surrounding prosecutions are joined up and, seamless for the victim.

This year (2022) the CPS welcomed the Government's focus on improving victims' experiences of the CJS and it is important this process is explored end to end with, the power of technology at the core of delivering justice for victims. Similarly, the Home Office has recognised the need for technology to play a central role in improving rape and serious sexual offences (RASSO) services through the launch of an ACE impact lab challenge which encourages technology providers to come together to pilot technology solutions.

### Citizen experience

It is important to have:

- continuity of data and public trust. From first contact with the police to court, prison and probation.
- management of information. Where, when, what records and their standardisation and availability.

Citizen expectations are for the public sector to provide similar digital services and standards to those offered by the private sector – be they online banks, Apple ID authentication, mobile paying apps – immediate response, clear communication, simple processes, and the feeling of being looked after lying at the core of their interactions.

Although, delivering this change across the public, and more specifically Justice sector is more challenging, a priority should be a consideration of the court set up. The organisation of rooms and court functionality could further take advantage of modern technology. Very little has changed in 200 years in terms of the estate and with efforts now to modernise technology in Her Majesty's Courts and Tribunals Services (HMCTS) reform programme, there are restrictions in the courts ability to use technology as an enabler.



### **'Tell me once'**

The idea of a victim being required to 'tell their story once' without having to repeat it to a number of agencies needs to be carefully considered when designing data systems, collecting and analysing data. Citizens and victims lose confidence when they don't get the quality and responsiveness of applications and processes which they see in the private sector. Applications and processes must respect the trauma many of the victims have been through.

For example, the ability to complete important documents & processes online ahead of time is going to be key for both MoJ staff and end users going forward.

[The Department for Work and Pensions \(DWP\) 'Tell us once' \(TUO\)](#) 'provides citizens with the opportunity to inform multiple local and government departments of a bereavement, saving them a considerable amount of effort at what can be a stressful time. It also offers considerable savings for departments by halting incorrect payments of benefits, which is estimated at around £20m per year'. This concept would be well adopted during victim investigations by CPS and the Police.

## What now?

The success in the tribunals space over the last 24 months must not be underestimated. It is no secret there is a backlog of courts cases due to the impact of COVID-19 however, access to justice and the delivery of justice have both been achieved during the pandemic with many hearings held remotely. We are seeing digital transformation across UK courts and tribunals but where next? The CJS is at a critical juncture in its digital transformation journey, and it must continue on this path or, risk slipping back to the way it was pre-pandemic.

- Justice partners must follow the lead of other sectors, such as policing, and set up a [group to look at interoperability](#) and data sharing. The work of this group has already been a huge success and begun through the Home Office discovery for an end to end criminal justice data system, however recommendations are yet to be taken forward. For example, digital tooling to allow the work being conducted on protective characteristics. The groups should include all relevant agencies and should work in a collaborative manner. techUK, as the trade body for the tech industry would be well placed to contribute to this. Given techUK's integral role in bridging the gap between supplier and stakeholder, the group can facilitate discussions on ways digital technology can be used to support in connecting departments across the CJS.

- There are numerous transformation programmes of work being carried out across the CJS and it is important that they are not progressed too far in silo. It is also important that this encompasses all areas of Justice from the outset.
- Interaction with other areas that are carrying out this work should be engaged – not just Policing but also the Central Digital and Data Office (CDDO) and others such as Office for National Statistics (ONS). Lessons can be learned to ensure the correct approach but will also help to bring together non-justice data that is fundamental to the sector.
- Education of senior leaders in challenges, opportunities, technology and approach as well as ultimate benefits and goals is essential to ensure this can progress with the correct level of buy in.
- 'Tell us once' or similar service to be adopted within Her Majesty's Courts and Tribunals (HMCTS) to better support victims.

With all of the above, it is important to take time to set the foundations for work to progress correctly – the cleansing of data is one faced by all organisations, and will need to be addressed in due course. Across the CPS, key building blocks that could prove challenging but could ultimately be of significant benefit, should not be overlooked in the desire for quick wins and progress.

## A place for digital forensics

*“Integral to this is a closer collaboration with law enforcement, vendors and academia and legal practitioners to reduce the gap between new technologies, their use in the investigation in alleged criminal activities. This includes the development of scientifically robust analytical tools to enable investigators to access and examine data from digital devices which will address the legitimate expectations of the Courts and the public”.*

*“To do this we need to work together to seek solutions to generate the data and research required to scientifically underpin the approaches used for legal acceptance within the CJS and be able to know how to scientifically examine a technology before it reaches the market. Furthermore, new processes will require investment in training and new expertise within policing, and across the CJS”.*

Exert taken from the FCN Digital Forensic Research Advisory Group – Supporting the NPCC Digital Forensic Science Strategy 2020

## Managing and exploiting data

This is a current key challenge for the CJS specifically associated with the amount and the complexity of the data. The usefulness, relevance, and contribution of the data for investigations and the CJS needs to be fully explored.

Early market engagement will combat this challenge and demystify how emerging technologies including artificial intelligence (AI) and machine learning (ML) can help. Meaningful engagement with industry is also important to ensure that these outputs are robustly validated and verified for the use within the CJS.

The tech sector needs to support processes where data can be validated at an earlier opportunity to develop new front-end tools that could reduce the scale and demand of the downstream processes (data storage/management).

**Automation** - With increasing demand for digital forensic applications, automation of key functions is deemed essential to increase throughput and reduce times for digital forensic examinations, however any new processes need to assure trust by both the public and legal practitioners.

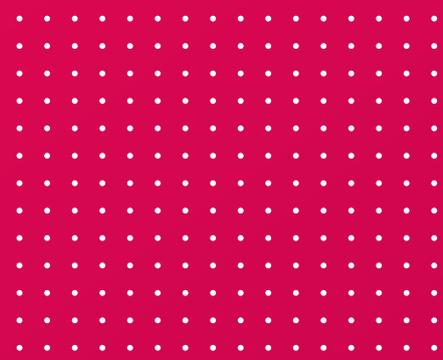
**Behavioural adaption** – As more automated processes and analytical tools are developed it will become increasingly important to consider where humans are integral to decision making. There is limited understanding in this area currently. Broader expertise will be required as digital processes change and develop.

**Data ethics** - The ethical issues associated with data remains under scrutiny. This is going to remain a critical factor due to the current and future scale and complexity of data as technology advances. Emphasis on a citizen science approach to seek public views and use of digital technologies as we move forward.

**Interpretation of digital evidence** - The findings from the analysis of digital devices and communications have often been considered as factual with little exploration of the uncertainties and inferences involved in their interpretation. This is a critical area for the presentation of digital evidence in court and for the courts to have confidence in the evidence presented. We need to develop an understanding of the known provenance of the data sets to allow evaluation of the evidence specific to the source and activities of the digital traces by which they arose.

# Recommendations

1. Work with techUK on a series of early **market engagement** sessions on the adoption of emerging technology – artificial intelligence and automation in particular – for managing and exploiting large data sets. Sessions to also look at sharing best practice across sectors, highlighting the vital role of emerging technologies, particularly their use across policing.
2. Drive for Her Majesty's Courts and Tribunals (HMCTS) to become a data-driven organisation. Consult techUK members on what a data-driven strategy might look like.
3. **Barrier busting**. Work with techUK to understand barriers such as, building public trust in the adoption of emerging technologies. Provide insights and share roadmap to how this could be achieved and, what is needed from the technology sector to achieve this.
4. Exploration activities as we strive for an **interoperable CJS**. Activities to look at ways to avoid duplication of data and the management of information.
5. Better understanding of the process of **digital evidence management and data extraction**. Closer working with industry to build confidence in the ways in which digital evidence is gathered.



# Digitising Prisons

“No vision for how prisons and probation can keep the public safe and tackle re-offending can ignore the context of COVID, because the pandemic has, of course, required those sectors to face their most significant challenge in at least a generation.”

COVID-19 has accelerated digital adoption across the criminal justice landscape. On 15 June 2021 we saw Her Majesty's Prison and Probation Service (HMPPS) publish its ['Digital, Data and Technology Strategy'](#) setting out its vision to transform services through digital technology, with the need to modernise estates more important now than it ever has been before. The strategy touches on the challenges its estates have faced due to the impact of the COVID-19 pandemic and how digital adoption is vital if we are to put the service users at the core.

Jo Farrar, Second Permanent Secretary, MoJ Chief Executive, HMPPS states *"We want services that are fit for the internet era, that meet the expectations of people that use them and work on them, and allow us to better adapt to the need for remote working, learning and relationships"*. The strategy highlights its vision for 2024 drawing on; updating IT equipment, replacing legacy systems, embracing digital tools to support rehabilitation, video conferencing and how high-quality data can be captured, stored and shared across services. The strategy highlights the important need to implement data standards across all digital produce teams to harness the power of data, reduce the burden on staff to duplicate data entries and improve the quality of the data collected and shared. An essential area as we see the building of 'smart' prisons and modernisation of existing Victorian estates.

Adding to the strategy and further highlighting the drive to digitise prisons, we saw the release of the MoJ [Prisons Strategy Whitepaper](#), 7 December 2021, setting out a new plan to deliver the biggest prison-building programme in more than 100 years. It commits to digitising the estate, scaling up the use of digital, data and technology to create a more efficient working environment for staff and empowering prisoners to take personal responsibility through the safe and secure use of in-cell technology.

The aim: **"to create the right conditions to reform and rehabilitate offenders, ultimately cutting crime and making the streets safe"**.

*"Taking the effort to develop a more holistic and integrated strategy towards the use of technology in prisons does not mean that a complete detailed re-design of systems is necessary or that all existing initiatives and systems should be replaced. On the contrary, one of the main drivers to develop such a strategy is to ensure solutions support and enhance the organisation's vision and remit, whilst being attentive to costs and use resources."*

Digital transformation for prisons:

Developing a needs-based strategy.

Steven Van De Steene Smart Corrections, Belgium and Victoria Knight De Montfort University, UK

It is important that systems aren't replaced but modernised or updated.

It is common knowledge that technology is being used to support prisoners now more than ever before. Released in several publications since March 2020, we are aware of the value of technology, especially in response to the challenges surrounding COVID-19. Over the last 18 months the MoJ has introduced video conferencing into prisons as a response to the pandemic and, we have seen the roll-out of in-cell technology for education and qualification purposes. Technology is enabling prisoners across a number of estates to take responsibility for many aspects of their lives from ordering meals to managing their money. The roll-out of this technology is vital but it needs to reach more prisons faster. The roll-out of this technology is vital but it needs to reach more prisons faster.



**Some observations from the tech sector as MoJ embarks on its largest prison building programme in a decade:**

### **1. Technology needs to be tailored**

**There is no one size fits all.** There are separate cohorts of prisoners and therefore a need to ensure that the technology implemented meets the needs of these diverse groups. Firstly, digital literacy, disability and age as examples. Secondly, 'short termers versus long termers'. There is a digital divide that exists in prisons. Prisoners serving short term sentences are often younger and more technically literate. They are also more likely to be comfortable accessing technology through smart phones and apps and have basic technology skills. Prisoners serving long term sentences have little to no current technology skills (i.e., the use of smart phones, touch screens, internet banking, self-service checkout etc), however long-term interventions (re-skilling and educational courses) become more possible.

### **2. Technology in Education**

**One step further.** The White Paper delivers a roadmap for prisoner education and the move to in-cell devices to improve access to education and qualification opportunities. Technology gives the potential to remove the physical constraint by moving education into the prison cell and for it to travel with the prisoner.

More laptops are now being provided to prisoners - this will provide the opportunity to study during long periods of lock-up, but also offer opportunities to tailor learning to specific needs.

Prison education reconfiguration: so that live lessons can be shared across prisons (for example through the use of '[Google Classroom](#)' or similar). A number of video platform and collaborative tools enable this.

How can we go one step further?

**Case study:** Technology can also be used to prepare offenders for work situations on the outside, from job interviews to dealing with conflict in the workplace, or manual skills required such as operating machinery or vehicles. The use of virtual reality as a training tool is becoming increasingly common, and in the prison context it could enable prisoners to be kept within a secure environment, whilst experiencing the environment that faces them on release. In the US, Goodwill partnered with Accenture to create 'Project Overcome', an innovative program designed specifically for ex-Prisoners. This project uses Virtual Reality (VR) as a tool to prepare Prison leavers in the process of searching, applying, interviewing, and hopefully landing a job after Prison. Through VR, individuals in the Project Overcome programme experience mock interviews with virtual HR managers, where they learn how to speak comfortably about their incarceration as well as learn how to operate modern technologies. Similarly, there are examples in the Ministry of Defence where VR is used to create muscle memory, for example to operate machinery, drive tanks, or operate weapons. This technique can be readily applied within Prisons to build manual skills which provide employers with the experience and reassurance they will be looking for.



Image Credit: Goodwill

### 3. Technology for through-the-gate preparation

**Multi-agency data sharing for improved rehabilitation outcomes.** Arguably the education aspects of technology, and the ability to communicate with supportive agencies play an important role in supporting prisoners going through-the-gate. Identifying data flow through the CJS and how technology and data sharing across multiple agencies can ensure more effective support for prisoners and prison leavers as they transition and re-enter society. The Prisons Strategy White Paper highlights the ambition for resettlement passports and there is an opportunity to explore if these could be digitised.

### 4. Technology for monitoring

**Surveillance.** Technology, as a support for maintaining control of the prison population has always been a popular, if blunt, approach. Technology is now able to offer a more nuanced approach to security and control. One example of this is the application of AI to existing prison control cameras to identify bad behaviours and likely flash points. '

One area which is gaining notoriety is how to detect events from video footage, also referred to as Computer Vision or AI Assisted Video Analytics' - [How can we improve people's safety with AI assisted video surveillance?](#)

### The hidden prize - data

Some of the technologies described above are well established and well proven in other areas. However, it is the access to data that the use of these technologies provide prison staff with the necessary information to better understand and better support the prison population. Data, particularly when collated and viewed across a range of 'systems will enable staff to monitor the activities of prisoners, to a level of detail not achieved before, thereby being able to:

- highlight those in most need, and therefore focus interventions more accurately
- assess the impacts of schemes on prisoner welfare, for example:
  - easy to roll-out questionnaires
  - sentiment analysis of communications
  - rapid assessment of the uptake of schemes/initiatives
  - predicting potential flashpoints
  - combining AI, past activities and prison staff experience.

**Given the restrictions of the Victorian prison estate, how can we address the ambition of prison technology transformation?**

Around a quarter of prisons within the HMPPS estates were built in the 1800s. At this time, the thought of using in cell technology to access information services such as self-service kiosks or in cell telephony were not viable options.

By October this year, 17 of the 118 prisons in England and Wales will have access to in-cell technology. It is clear there is still a long way to go, but the correct infrastructure must be in place for the technology to flourish and, for any future prison build this must be kept in mind.

The Prisons Strategy White Paper states "Alongside delivering new prison places, we must also take a fresh look at the needs of our existing estate, particularly how we can improve current infrastructure, standards and conditions to help cut crime".

[According to the National Audit Office \(NAO\)](#) HMPPS-commissioned research found that the prison environment, including the condition of buildings and facilities, plays a role in how prisoners behave.

### Getting to grips with the basics

The Prisons Strategy White Paper acknowledges the need to modernise the physical prison estate. techUK has engaged with the Ministry of Justice Digital and Technology team previously via [two roundtables](#) and, there is an undeniable urgency around updating the technological infrastructure within existing prisons with the scaling up of digital, data and technology and transforming legacy systems.

It is widely reported the effectiveness of maintaining family ties and the role this plays in reducing reoffending. With better data and in-cell technology, we can see prisoners in touch with their loved ones more frequently, in secure and safe environments, which was particularly important during the height of the COVID-19 pandemic. We can see a reduction of administrative burden on staff which can free up their time, time they can spend in meaningful contact with prisoners.

*"We must utilise digital and technology to transform how people live and work in prison whilst ensuring that any digital service or technology we introduce is inherently secure and safe for use".*

*(Prisons Strategy White Paper)*

### The Challenge

Victorian prisons were built with thick brick walls and steel constructs leading to challenges when introducing cables to enable connectivity. Moreover, the distances between main buildings pose a challenge as does the lack of availability or capacity to cable.

Considering the challenges of technology transformation in a "Victorian estate", the structural issue is deploying pervasive connectivity across a variety of aged estates. For example, physical building fabric prevents effective wireless coverage or easy secure network cabling to cells.



Access to technology with local wireless networks and devices will provide a range of safety monitoring services, education and virtual healthcare. However, to be successful, the infrastructure needs to be presented in multiple physically restricted areas, penetrating Victorian building fabric and be in secure containment.

The prison estate is the legacy of more than 200 years of prison expansion to meet demand for places. Although many prisons have been substantially modified or rebuilt since their opening, 62% opened before 1979, while 28% opened before 1900.

The burden and cost of maintaining the prison estate is summarised by the [National Audit Office \(NAO\) report](#) – with some staggering figures, backlog maintenance, disrepair and impending risks as a result of the current legacy estate. In fact, "while forecasts are highly uncertain, they suggest that, without intervention beyond new places under construction, demand for prison places could exceed supply between October 2022 and June 2023."

### How is it working elsewhere?

There are established methods to deliver fibre to the home (FTTH) with Scottish and Southern Energy (SSE), Thames Water and Scottish Water which may be applied to existing prisons.

Consider the same FTTH technology being used [to deploy in Prisons using the established mains water and sewerage infrastructure?](#) This would make use of all relevant and available physical water and sewage infrastructure for the roll-out of communication networks to minimise costs and accelerate the deployment of high bandwidth connectivity. UK connectivity provider SSE Enterprise Telecoms is working with major water utility companies to develop a common set of standards for how to install fibre optic cables in the sewers with minimal disruption. To develop these standards, SSE has launched an [independently chaired Technical User Group \(TUG\)](#) that has brought together five UK water companies, including Scottish Water Horizons.

# Recommendations

1. MoJ and HMPPS to consider a bridging period of 7-10 years where the return on investment in **deploying fibre connectivity via existing “pipework”** to support access to technology, enabling learning and training, and improving literacy and job skills. Benefits would include, supporting video communications with welfare and other privileged calls (legal and medical) from the privacy of the prisoners’ cell in addition to social and family benefits from secure and moderated internet access and family video calls.
2. Challenges to be explored via techUK in flooding buildings with **secure Wi-Fi networks**, rather than ethernet ports.
3. Access to **digital tooling**, such as Unilink’s integrated suite of products, for provision of prison services, education and skills to build digital footprints and identity for use outside prison – such as via ‘Digital Passports’ referenced in the Prisons Strategy White Paper. Data analysis to greater understand how this data travels with the user.
4. **New prison build commitment and PTTP.** Commitment from Justice stakeholders to work collaboratively with the technology industry on future prison builds. Learn from existing challenges in current infrastructure to ensure same challenges won’t be experienced in years to come. Digital and technology are fluid, this needs to be considered to ensure legacy infrastructure cannot be a future problem.

With these, the tech sector can support the MoJ and HMPPS to deliver their digital vision over the next decade, with a focus on transforming outdated data systems and the operational database used in prisons for prison management. In doing so, encouraging the joining up and improvement of data across systems and agencies, this encouraging partnership working and moving towards a whole system approach. It is vital staff have access to the right data at the right time in the correct format to improve decision making, safety and business as usual.

**How can we deliver effective healthcare services in prisons which are secure, preventative, personalised and at point of need?**

Considering the objectives of Mandela law, “to promote humane conditions of imprisonment, raise awareness about prisoners being a continuous part of society and valuing the work of prison staff as an important social service” the impact of access to effective healthcare, in the rehabilitation and care of our prison population cannot be underestimated.

It is inevitably an emotive subject but as a civilised society, in which some 95% of the prison population will be released, tackling the health divide that exists in our prison population is a win for all of society.

The reality is that a proportion of people spend their first night in prison without access to their existing prescription medication. Either it was not with them when they entered prison, they don't know the name of it or, the prison needs to verify that they have a medical need for the prescription rather than it being part of a misuse challenge. This can be challenging for both prisoner and prison staff. [Exploring first days in custody](#), Sopra Steria describes a relatively recent set of engagements across courts, prisons and escort services using technology to enable prison services to dip into relevant health data to ensure prescriptions are available on that first night.



## Patient led healthcare

This is a growing focus from health providers supported by government and organisational initiatives. The simple idea is to involve people in their own care, giving them control and accountability towards their care decisions and promoting living a healthier lifestyle.

A seismic shift is occurring in society around our perception and expectations of how we access and receive health services, in part driven by the speed of transformation that has been necessary because of the COVID-19 Pandemic resulting in the increased use of digital services.

Prisons have an opportunity to level up access to healthcare and offer equality in services, whilst supporting some of the most vulnerable people in our society at a lower security risk.

## Point of need

Poor mental health and provision of those services into a prison setting is a very stark issue. Education, health, support and care services provided through a secure technology infrastructure at point of need quite literally would save lives and provide positive steps towards rehabilitation. This could play an important role in breaking the cycle of repeat offending.

## Integrated outside

Effective healthcare access must not be limited to the time spent within the prisons walls. In Public Health England's (PHE), now replaced by the UK Health Security Agency and Office for Health Improvement and Disparities own Guidance from 2018 for improving continuity of care between prison and the community, it states: "An integrated care pathway from prison to the community is crucial for supporting recovery from substance misuse and reducing reoffending among people leaving custody."

The 'Joining up care for people, places and populations' white paper published in 2021 set out the ambition to support integration around individual patients and people who draw on care services.

PHE's own data shows:

- almost half of referrals made by prison treatment services are not received by community services
- there is limited opportunity to make referrals with unplanned releases from court
- there is no joined-up working with probation services during release planning
- low attendance at appointments or drop-in clinics in the community following release from prison
- a limited follow-up of individuals who did not attend.

## The power of interoperability in connecting care across the criminal justice sector

Across the digital healthcare landscape, interoperability is a recognised solution which is used to join up patient and citizen data across a complex architecture of systems from multiple settings. Interoperability is vital as we try to untangle the messy web of data flow though the CJS. Integrated care systems (ICSs) have formed partnerships to meet health and care needs to improve population health and reduce inequalities. Despite the efforts of transformation, gaps in the delivery of care are still being uncovered.



In the criminal justice sector, prison systems do not appear to be effectively communicating with the systems used by the NHS. If systems are able to talk to each other the transfer of care is streamlined and safer for prisoners accessing healthcare whilst in prison and on release from a prison setting.

*“The only caveat being that appropriate information sharing governance and/or required consent is in place”.*

The large population in prison today require efficient care, aligned to the criminal justice journey. Without safer, more joined up care wider issues can prevail. A patient journey that is disjointed, especially in this space, creates wider issues for prisoners whilst in prison and upon release.

Patient information held across disparate systems generates silos of data which are unhelpful for the healthcare professional providing care. Presenting all the information in one single view and in real-time builds a full picture of the patient’s medical history. A holistic view of patient data needs to be aligned to prisoners moving into prison, while inside prison and on release. For example, the first few days

upon release is deemed to be most vulnerable for prisoners and critical to health and welfare. If clinicians have access to discharge summaries and transfer of care documentation transition can be coordinated to ensure the best patient outcomes. According to research undertaken by [Healthcare Gateway](#), clinicians have inadequate access to real-time patient data across geographical and organisational boundaries currently existing in the sector. Resulting in the loss of patient data, and restricting the ability for supporting organisations to recognise those in need quickly enough to avoid damage to welfare, or the potential for re-offending.

### Looking ahead

For a truly integrated care system, levels of care must be comparable across all settings where medical intervention exists. However, there are significant interoperability gaps in the sector which need addressing to ensure the care received in a prison environment is the same quality of care as received by the wider population. Adopting solutions that are widely used across the UK, such as the Medical Interoperability Gateway (MIG), can support the criminal justice sector in its capability to rapidly achieve smarter, connected care.

# Our recommendations

1. There is a need to create a prison service **minimum viable product**, which offers secure connectivity with health and education services on campus, in classrooms and then eventually in-cell.
2. Need to build appropriate secure foundations for technology to make a difference in a complex but not impossible infrastructure. Through techUK, a **strategic partner eco-system** that understands the environment and unique challenges.
3. Aligning a strategy in prisons specifically for healthcare with a **success framework** like the NHS England and Improvement 'What good looks like' (WGLL) framework would ensure that both the health service and the prison service were working to similar goals.
4. Early market engagement, through techUK's Justice and Emergency Services and Health and Social Care Programmes, via the Interoperability in Health and Care Working Group, to untangle the challenges surrounding healthtech interoperability and, where next as part of the Prison Build Programme.

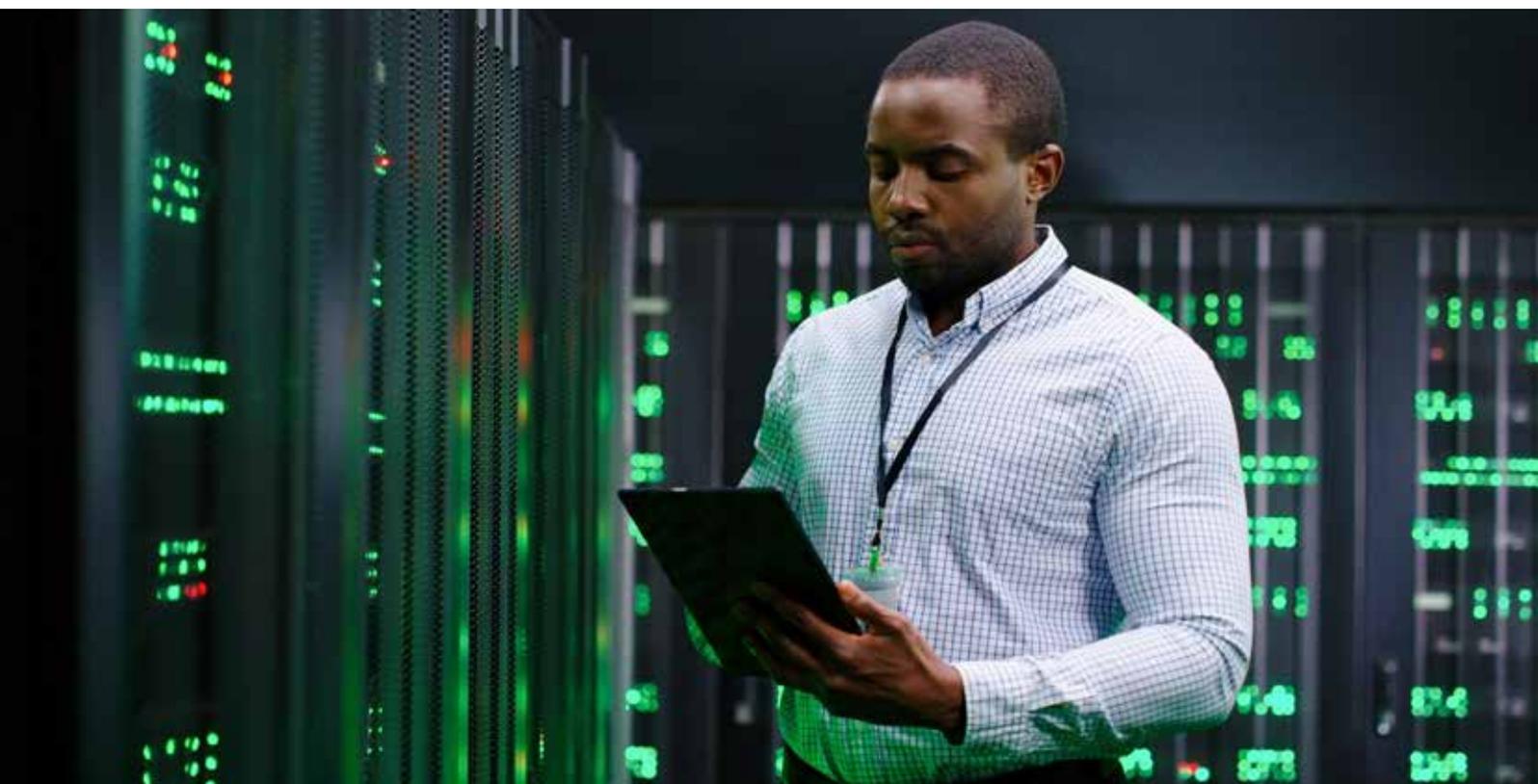
**With MoJ modernising existing prison estates, and 'digital' front and centre in the prison build programme it is important to ask - how can we prevent increased security threats that may come with digitisation and the increased use of data?**

- How can we prevent fear of cyber security threats from stopping digitisation and data advances?
- What is the art of the possible in improving prison cyber security today?
- What are the current cyber security challenges for prisons today and in the future?

**Cost.** With more digital devices being brought in for operational functions and services, we are seeing an escalating cost of security measures. With the expectation of these devices to be utilised by prison staff, we then start to see a differing of digital maturity across prison estates and the need for different levels of training implemented to meet the needs of individuals.

Not only this, the MoJ needs to be equipped to address the costs and risks that legacy systems create. Protection of records, high use of paper records and soon to be obsolete legacy systems – it will be critical to protect the digitisation, the reduction of paper records, the use of legacy systems and future digital records that enable the data use of tomorrow. As we move to digital ways of working, upgrading and updating systems, there must be assurance that decision-making and procurement are able to fast track the capabilities of new technology.

**Phishing.** There is a high rate of phishing attacks on systems and high costs of dealing with these. There is a rising threat of ransomware with huge risk to key business processes. With the threat, there is a need for a capability to withstand a concerted ransomware attack. Forward thinking needs to be conducted in order to evaluate the impact if key systems are unavailable or offline due to either a generic or targeted attack.



Last year saw the successful non-targeted but highly damaging attack on The Scottish Environment Protection Agency (SEPA), and highly targeted attacks on education providers including Queen’s University Belfast and education suppliers. The attack on SEPA solidified the need to be able to orchestrate a national response which can rapidly mobilise the support that organisations need to detect, respond and recover from a major cyberattack. [The framework](#) emphasises the need for a secure-by-design approach for the public sector, across the supply chain. Considerations need to be made across prison estates and Justice supply chains to reduce the risk from cyber-terrorism.

**Supply chains.** The supply chain challenge goes beyond data protection and devices being tampered with; supplier resilience needs to be considered. Traditionally, analogue services now build on digital tools, ensuring they have a level of cyber maturity, identifying risk factors for further assurance and monitoring. Secure enterprise architecture reduces the risk from suppliers combined with evolving internal network segmentation.

**Data loss prevention.** Digital data loss needs to be considered on par with current paper-based or it isolates the system. Particular consideration that the Justice system might have a unique challenge that system participants (prisoners or ex-prisoners) might be incentivised to have their data lost.

The above challenges need addressing and techUK would welcome the opportunity to work with the MoJ in responding to these.

The digitisation, suggested in the wider report, can both reduce and increase the prevalence and cost of above threats.

With this, it is important for the MoJ and their suppliers to look at the eco-system of suppliers and the wider Justice community to better understand the “art of the possible”.

The following principles will support the prevention of cyber security threats:

### Recommendations

1. Monitoring is key, and **automation** of background monitoring is critical to cost control.
2. **Role-based access control**, using best practice for containerisation of data and processes. Engage via techUK to understand best practice across other sectors.
3. **User-centred rules** and processes to ensure that users aren’t incentivised to go-around access rules (for example, password sharing). Appropriate training to be provided.
4. **Risk-based approach** to security, including alerts and decision making, prioritisation and categorisation of prisoners, prison staff and system staff.
5. Security needs to be considered, at **procurement**, throughout contract delivery, at contract end.
6. **Strategy to be developed in order to prevent prisons becoming targets of cyber-terrorism.** There is a need to reduce risks posed by staff, whether accidental (phishing) or deliberate. Exploration of the process to monitor staff digital communications. techUK to support in the delivery of this strategy.



# Digitising Probation Services

“A probation service user’s journey often involves prison (as part of a custodial sentence). Delivery of new digital services for probation will be aligned with new prison digital services to provide a joined up approach and in accordance with the HMPPS Business Strategy’s aim to act as ‘one HMPPS’.”

Across the CJS there is a drive to improve the user experience and better understand the journey of the user as they move through the CJS. The end goal, however, is to reduce recidivism and ensure the right prevention mechanisms are in place to ensure once they leave the prison gates, they are equipped with the tools they need to not reoffend. There are many factors to support crime reduction and prevention with, one of these being digital technologies.

Outside of the citizen experience, there needs to also be an acknowledgement of the impact any new technology will bring for service delivery – to better support prison officers and probation staff in delivering the most efficient and effective service. A service which delivers the most value. “Probation staff need simpler, clearer, faster digital services”. Under the Prison Technology Transformation Programme (PTTP) we see the use of technology to optimise the current approach to prison and offender management with a redesign of the Offender Management System. There is a need to enhance prisoner records, sentence calculation, risk assessments and case preparations. Probation staff need better access to data to enable them to deliver their services to meet the needs of the service user. With more streamlined data sharing and collection, we will see a cut in time spent filling paperwork and instead, time freed up to deliver those services to meet the user.

[The Target Operating Model for the Future of Prisons](#) highlights a new and exciting approach to service delivery to support more efficient business processes such as; relieving staff of arduous and unnecessary tasks, better use of data and time freed up so more time can be spent achieving common business outcomes.

#### Three key areas to address:

1. **Digital skills and being job ready**– the role technology plays to help prepare prison leavers for a more digital world. Equipping them with the skills they need to leave prison prepared for the outside world. BUT this will only work if –
2. Agencies are working together (**multi-agency working**), to support that prison leaver. Agencies must share data in order to offer the best support possible (education, health, employment). It will also help to –
3. **Prevent reoffending** – having access to the right data and drivers to prevent the ‘revolving door’ scenario. Analysis of the data around re-offending is vital with agencies needing to ask the right questions, such as – do we capture the right information early enough to be able to detect or understand the drivers of re-offending? If not, how could we facilitate that? How do we use data/data science to identify individuals at the earliest possible opportunity? What are the potential barriers and how can industry help overcome them/ influence perception? **The vision:** To deliver a sustainable long term estate platform for probation services which meets overall public protection and rehabilitation duties, whilst ensuring value for money.

On 16 May 2019, the MoJ announced the end of *Transforming Rehabilitation*, with all offender management now the responsibility of the National Probation Service (NPS). The then **Justice Secretary David Gauke set out his blueprint for the future of probation** – bringing all offender management under the NPS and building on existing work to drive down reoffending.

*“Delivering a stronger probation system, which commands the confidence of the courts and better protects the public, is a pillar of our reforms to focus on rehabilitation and cut reoffending. I want a smarter justice system that reduces repeat crime by providing robust community alternatives to ineffective short prison sentences – supporting offenders to turn away from crime for good. The model we are announcing will harness the skills of private and voluntary providers and draw on the expertise of the NPS to boost rehabilitation, improve standards and ultimately increase public safety”.*

### Where are we now?

COVID-19 was a catalyst for the rapid implementation of technology across prison and probation services. We saw, and continue to see, the roll-out of, as examples, in-cell laptops, [Meganexus’ ‘Virtual Campus’](#), video conferencing and other digital tools to support prisoners, prison leavers and staff across prison and probation services.

**The challenge:** to keep building on this momentum and ensure these digital changes are here to stay.

**What is needed:** A collaborative approach which involves closer working between industry, health, education departments, local authorities and the Ministry of Justice. In this digital age, CJS stakeholders and tech suppliers must collaborate to deliver a solution, not limited to the supply of their products that does not integrate elsewhere. Rehabilitation activities involve the engagement and partnerships of these multiple parties to deliver learning, self-development, vocational skills, to drive employment, facilitate healthcare, and to enable interventions for substance abuse and support for neurodiversity. It is vital all agencies, organisations and government departments are coming together.



## Progress

HMPPS published its [Digital, Data and Technology Strategy](#) (DDaTS) which commits to giving individuals the care, digital tools and technology to support their rehabilitation.

Reoffending is estimated to cost the UK £18bn a year and MOJ figures show only 17% of offenders gain employment in the first year after release.

[New prisons like HMP Five Wells](#) are designed to aid rehabilitation with the aim of the programme to reform and modernise the prison estate to make it more efficient, safer and focused on supporting rehabilitation and these purpose-built facilities can incorporate technology, network and infrastructure requirements from the outset.

**An important consideration:** the impact on prisoners moving from a prison built with technology in mind, to one of the older estates and vice-versa.

The DDaTS ambition focuses on supporting people within their care through access to tools and technology to support their rehabilitation and to support video conferencing access for everyone. The ambition of the MoJ is to enable Prisoners to leverage technology whilst in prison to learn life skills, educate, manage their diaries, learn how to use technology, consume prison content, become more engaged in the prison community, be distracted with “useful/constructive” activities and, communicate more easily with family at home – all in a bid to reduce their chances of reoffending on exit and reintegrating more easily into society. [67% of homeless prisoners reoffend in the first year.](#) More needs to be done to equip prisoners with the skills, whether education or life skills, they need to reintegrate successfully back into society and not reoffend.

The MoJ Prisons Strategy White Paper commits to drive to get offenders into work by introducing a new job-matching service that pairs offenders up with vacancies in the community once they’ve left. It also commits to making sure prisoners gain basic standards of numeracy and literacy while inside – ensuring every single prisoner has a basic level of English and maths so they are equipped for work on release, and a new Prisoner Education Service to train up offenders with vocational skills including construction and coding – improving their job prospects and steering them clear of crime.

The white paper also highlights the introduction of resettlement passports. These will put plans in place for prisoners on release, which will provide them with all things they need, in once place, once they start looking for work (CV, identification, bank account).

## One step further

Building on the DDaTS, what would a **Data centred Strategy** look like? Data has the power to give staff a better understanding of how to treat an individual – be that in court, prison or once they have left the prison gates. By having access to the right data, it allows better support and rehabilitation management through targeted interventions. Data is a strategic asset and, at the moment, the power of data is not being fully harnessed and opportunities to improve service user outcomes, reduce recidivism, protect the public and support staff are being missed. Having access to the correct data is vital. However, what is even more vital is ensuring the quality of the data provided and, for systems to be in place to improve this data so it is not down to each individual. By improving data quality, we will see the delivery of the right interventions to the right cohort of prisoner or prison leaver which, in turn has huge financial and efficiency benefits.

We are all aware that the impact of COVID-19 on the justice system has been significant. Digital adoption accelerated, and continues to, across courts, prison and probation services offering a number of opportunities to support users – be they prisoner, probationer or officer.

Drawing on the work carried out across the health sector and roll-out of digital health passports (as referenced in the MoJ Prisons Strategy White Paper), there is an opportunity to go one step further, and explore whether resettlement passports can be digitised. These could enable a user to view treatments, access advice, speak to support services but also offer significant detail which could point to why someone committed a crime or why they might reoffend. Not every prison leaver has access to a device but it is clear, more so now in a post-pandemic world – that digital access and digital skills are two areas to be explored under the new rehabilitation programme and construction of the ‘smart prison’.

### Digital tools for prevention and reducing reoffending

It has been referenced that 67% of the homeless prison population reoffend in their first year of release. To support the analysis of data around reoffending ensuring the right data is captured at the right time, early on, to be able to detect drivers of reoffending is vital. For example, the use of data science to identify individuals at the earliest possible opportunity and to understand potential barriers and how industry can help to overcome these. These metrics analytics can then be shared with partner agencies.

### The use of electronic monitoring as a tool for the Probation Service in reducing reoffending and managing risk.

Alcohol tags have been available for judges and magistrates to hand down to offenders serving community sentences by Capita since October 2020.

In May 2021, there were 407 active orders with 97 percent of subjects remaining compliant, i.e., refrained from alcohol, for the entirety of their order.

The service has now been rolled out to offenders being released from prison, this national roll-out started in Wales in August 2021, and the scheme will be applied in England summer 2022. Offenders will either have a license condition (Alcohol Monitoring on License) which requires them to abstain from alcohol for up to a year or have their drinking levels monitored because their risk of reoffending increases after alcohol consumption - it is expected to have a significant impact on prison leavers’ drinking habits.

Since October 2020 there have been over 1000 active orders, which are a combination of community sentences and alcohol monitoring on license.



### Growing digital skills gap

In techUK's 2021 Digitising Justice Report, it is highlighted that it is important to focus on "creating a culture and environment where technology and innovation can flourish. The pandemic has shown that digital is no longer just the responsibility of IT. It is about empowering people and equipping them with the digital skills needed to deliver the best services".

There is a growing skills gap in the UK. COVID-19 has increased the degree in which digital literacy is a necessity. Almost all workplaces, including retail and hospitality require the use of digital devices, making digital skills vital for any prison leaver. Equipping prisoners with the tools they need inside the prison walls, so they leave the prison gates job ready. It is therefore important that rehabilitation programmes focus on firstly, the use of ICT to deliver education and, secondly the need for meaningful prisoner education to promote digital skills.

Through the use of technology, centralised online learning, assessment and reporting facilities for large numbers of Service Users are designed and rolled out in a matter of weeks.

There is a need for designing and building for scalability at the outset and an understanding of the need for investment (fixed cost) to enable this requirement in any original business case rather than as an add-on. Ideally based on confidence in volumes from the client, understanding scale via quality data forecasting.

### Scalable versus bespoke

Single needs assessment, core curriculum development (potentially with tech enablement) versus more regional/cohort-based modules to be bolted on as needs develop. Both offer individualised journey within a platform. Access to a platform where learning content is housed and where other content can be linked to is vital. It is then important that this information follows the user through the CJS and travels with them upon release from prison. Navigability of the learning content is key in order to provide learning pathways, skills assessments with recommended learning content to further build on skills, address gaps and more.

# Recommendations

1. Consider different learning modalities and **building on pathways**. Playlists, badging, certification, gamification to be considered as options as well. There is a vast range of people with different learning styles and capabilities and, this could help them progress through their learning journey.
2. Consider a digital '**skills passport**' (as referenced in the Prisons Strategy White Paper) where learning completed is captured and retained for an individual – and attaching a certification / achievement to this. This data is valuable to that prison leaver and should be easily accessible and readily available throughout their journey and life. MoJ and HMPPS to work with techUK on a deep dive exercise to ascertain what this would entail and, what is achievable.
3. There is vast potential for the use of **virtual peer learning groups** (both synchronous and asynchronous) – working on project-based learning across multiple locations, which also acts as a knowledge repository.
4. **Linking learner data** to other people's information to inform strategic decision-making e.g. correlation between doing certain types of learning and rates of reoffending.
5. **Strategy to improve digital access and digital skills** to be explored under the new rehabilitation programme and, particularly with the construction of the 'smart prison'. techUK to be part of any consultation or strategy shaping.
6. Technology alone won't prevent crime or reduce reoffending. Whilst it is a valuable tool, agencies must come together as preventing crime requires collective action. Supporting prison leavers requires a **multi-agency approach**.



## What we need to see moving forward

In the short term, a formal strategic partnership agreement between the MoJ and techUK which includes a commitment to work closely via techUK, with its members, to consider and act on the recommendations outlined in this report and to work collaboratively with the tech sector to deliver the vision outlined in the MoJ Digital Strategy 2025.

### In addition:

- Early market engagement with the tech industry pre-procurement to be conducted through techUK.
- Formal collaboration between Government departments, department of education and the tech industry to define a strategy on delivering against the skills shortage.
- Technologies must ensure they are inclusive to be of use to Service Users of different ages, genders, ethnicities, socio-economic backgrounds, and literacy levels.
- Consideration on what a training and induction process will be required for users at all levels as digital technologies are introduced more widely across the CJS, to ensure good uptake and effective use.

# Summary of recommendations

1. Work with techUK on a series of early **market engagement** sessions on the adoption of emerging technology – artificial intelligence and automation in particular – for managing and exploiting large data sets. Sessions to also look at sharing best practice across sectors, highlighting the vital role of emerging technologies, particularly their use across policing.
2. Drive for Her Majesty's Courts and Tribunals (HMCTS) to become a data-driven organisation. Consult techUK members on what a **data-driven strategy** might look like.
3. **Barrier busting.** Work with techUK to understand barriers such as, building public trust in the adoption of emerging technologies. Provide insights and share roadmap to how this could be achieved and, what is needed from the technology sector to achieve this.
4. Exploration activities as we strive for an **interoperable CJS.** Activities to look at ways to avoid duplication of data and the management of information.
5. Better understanding of the process of **digital evidence management and data extraction.** Closer working with industry to build confidence in the ways in which digital evidence is gathered.

6. MoJ and HMPPS to consider a bridging period of 7-10 years where the return on investment in **deploying fibre connectivity via existing “pipework”** to support access to technology, enabling learning and training, and improving literacy and job skills.
7. Challenges to be explored via techUK in flooding buildings with **secure Wi-Fi networks**, rather than ethernet ports
8. **Access to digital tooling**, for provision of prison services, education and skills to build digital footprints and identity for use outside prison – such as via ‘Digital Passports’ referenced in the Prisons Strategy White Paper. Data analysis to greater understand how this data travels with the user.
9. **New prison build commitment.** Commitment from Justice stakeholders to work collaboratively with the technology industry on future prison builds. Learn from existing challenges in current infrastructure to ensure same challenges won’t be experienced in years to come. Digital and technology are fluid, this needs to be considered to ensure legacy infrastructure cannot be a future problem.
10. There is a need to create a prison service **minimum viable product**, which offers secure connectivity with health and education services on campus, in classrooms and then eventually in-cell.
11. Need to build appropriate secure foundations for technology to make a difference in a complex but not impossible infrastructure. Through techUK, a **strategic partner eco-system** that understands the environment and unique challenges.
12. Aligning a strategy in prisons specifically for healthcare with a **success framework** like the NHS England and Improvement ‘What good looks like’ (WGLL) framework would ensure that both the health service and the prison service were working to similar goals.

13. **Early market engagement**, through techUK's Justice and Emergency Services and Health and Social Care Programmes, via the Interoperability in Health and Care Working Group, to untangle the challenges surrounding healthtech interoperability and, where next as part of the Prison Build Programme.
14. Monitoring is key, and **automation** of background monitoring is critical to cost control.
15. **Role-based access control**, using best practice for containerisation of data and processes. Engage via techUK to understand best practice across other sectors.
16. **User-centred rules** and processes to ensure that users aren't incentivised to go-around access rules (password sharing etc). Appropriate training to be provided.
17. **Risk-based approach** to security, including alerts and decision making, prioritisation and categorisation of prisoners, prison staff and system staff.
18. Security needs to be considered, at **procurement**, throughout contract delivery, at contract end.
19. **Strategy to be developed in order to prevent prisons becoming targets of cyber-terrorism**. There is a need to reduce risks posed by staff, whether accidental (phishing) or deliberate. Exploration of the process to monitor staff digital communications. techUK to support in the delivery of this strategy.

20. Consider different learning modalities and **building on pathways**. Playlists, badging, certification, gamification to be considered as options as well. There is a vast range of people with different learning styles and capabilities and, this could help them progress through their learning journey.
21. Consider a digital '**skills passport**' (as referenced in the Prisons Strategy White Paper) where learning completed is captured and retained for an individual – and attaching a certification/achievement to this. This data is valuable to that prison leaver and should be easily accessible and readily available throughout their journey and life. MoJ and HMPPS to work with techUK on a deep dive exercise to ascertain what this would entail and, what is achievable.
22. There is vast potential for the use of **virtual peer learning groups** (both synchronous and asynchronous) – working on project-based learning across multiple locations, which also acts as a knowledge repository.
23. **Linking learner data** to other people's information to inform strategic decision-making e.g. correlation between doing certain types of learning and rates of reoffending.
24. **Strategy to improve digital access and digital skills** to be explored under the new rehabilitation programme and, particularly with the construction of the 'smart prison'. techUK to be part of any consultation or strategy shaping.
25. Technology alone won't prevent crime or reduce reoffending. Whilst it is a valuable tool, agencies must come together as preventing crime requires collective action. Supporting prison leavers requires a **multi-agency approach**.

# Acknowledgements

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## About techUK

techUK is a membership organisation that brings together people, companies and organisations to realise the positive outcomes of what digital technology can achieve. We collaborate across business, Government and stakeholders to fulfil the potential of technology to deliver a stronger society and more sustainable future. By providing expertise and insight, we support our members, partners and stakeholders as they prepare the UK for what comes next in a constantly changing world.



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