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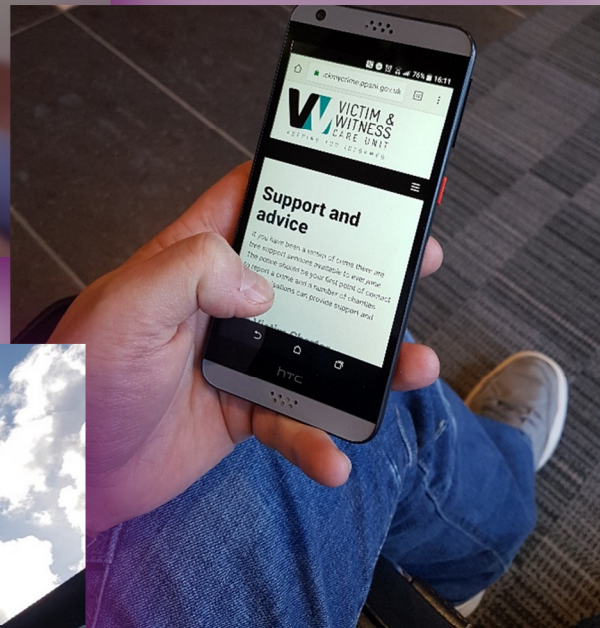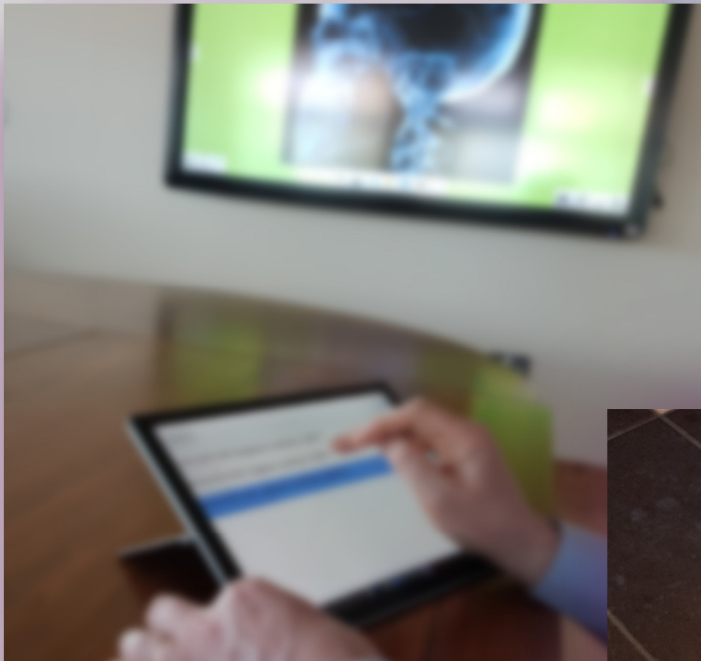
Digital Strategy

2018 – 2022

A digital vision for the future of prosecuting

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1. Message from the Director of Public Prosecutions

My vision for the Public Prosecution Service for Northern Ireland is to be recognised as providing a first class prosecution service for the people of Northern Ireland. This will require us to make better use of digital solutions to enable us to run our service more efficiently.

This Digital Strategy by default can help us achieve our vision.

It will transform the services we provide, the way we work and the systems and processes that underpin these priorities.

It enables us to design services around the needs of users to support better outcomes, such as providing victims with more information about their case, or facilitating better presentation of evidence at court.

It allows us to deliver solutions at a pace that are simpler, easier to use and better value for users and the government. Delivering digital services that people prefer to use allows us to dedicate alternatives like phone helplines to those who really need them while reducing demand on these higher-cost channels.

We have already made some good progress in designing digital services, for example through the introduction of a Victims' Information Portal and the introduction of digital working in the Magistrates Court by way of prosecutors equipped with electronic tablet devices.

However, we can do a lot more to exploit digital technology to provide better services.

In future we will look to work with a range of technology suppliers who can deliver more efficient and flexible solutions, use common platforms with other departments, improve our user insight and performance management to deliver services that people prefer to use, and use digital solutions to work more effectively with the private and voluntary sectors.

The increased capability of our staff to understand the potential of digital will also lead to new policy options, with the user and digital delivery in mind at the outset.

Digital will be at the heart of achieving a transformed justice system that is more effective, less costly and more responsive for our users.

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Stephen Herron

Director of Public Prosecutions for Northern Ireland

2. Executive Summary

Over the past five or more years many organisations in the private and public sector have been on an ever accelerating digital change journey which has enabled them not just to improve how they work but also to grow their experience of digital transformation. That experience has facilitated an adjustment to their understanding of what "going digital" actually means.

It is clear that digital transformation is much more than a box of computer equipment the IT department procures and implements with little or no input from users in the rest of the organisation. Increasingly, it is being recognised that more value can be achieved by closely integrating experienced user groups with technology delivery teams at the very start of and throughout the life of projects. Furthermore it is the new or changed capacities and capabilities that those technologies enable that deliver real change to how we perform as a workforce when delivering services to the public. Digital change can improve the performance of our workforce but it is more important to understand that it is in fact our staff who are at the heart of this transformation.

This strategy strives to set the direction we aim to travel. It provides mechanisms to enable us to sequence resources and will allow us to decide when we will do things and what we will do first.

A number of key drivers for change have had a direct impact on the content of this strategy and include:

- the draft Programme for Government and the PPS Business Plan;
- the drive by government to meet the demand from citizens for more and more services to be delivered via digital platforms;
- the drive towards greater use of shared services;
- the requirement to comply with new and existing legislation especially EU General Data Protection Regulation (GDPR);
- the ever increasing threat of cyber-attacks;
- specific legislative change in the area of justice including the Justice Act (Northern Ireland) 2015;
- the process of the United Kingdom leaving the European Union, known as Brexit; and
- continued pressure on budgets.

The key themes of this strategy are focused on improving service delivery and achieving value for money. They are centred around:

- Citizen Engagement;
- Empowering our Workforce;
- Service Improvement;
- Digital Collaboration between Justice Partners;
- Legislative and Policy Compliance; and
- Fit for Purpose Infrastructure.

We will ensure that business leaders and ICT experts work as one to deliver technology enabled business change and we will remain open to new and emerging technologies, forming a vision as to how they might improve what we do. We will continue to benchmark what we do and what we plan to do against similar organisations in other jurisdictions. We will seek out opportunities where we can invest money to make longer term savings and improvements in service.

This strategy is owned by the PPS Management Board and will be managed by the PPS ICT Change Board. We will deliver the portfolio of projects outlined in this strategy in a way that maximises benefits. We will work to ensure that we use financial, staffing and supplier resources in the most optimal way to deliver the change programme within available budgets and according to agreed timescales. We will ensure transparency in what we plan to do and what we deliver and will publish updates on progress each year via our Annual Report.

3. Introduction

The PPS Digital Strategy 2018 – 2022 will transform how we work. The use of state-of-the-art technology will enable us to work smarter. We will become more effective and efficient and we will give time back to staff to spend on more value added tasks.

1. PPS Vision and Aim	The PPS vision is to be recognised as providing a first class prosecution service for the people of Northern Ireland.
	The aim of the PPS is to provide the people of Northern Ireland with an independent, fair and effective prosecution service:
	• Independence - The Service will be wholly independent of both police and Government; its decisions will be impartial, based on an independent and impartial assessment of the available evidence and the public interest.
	• Fairness - All actions will be undertaken with complete impartiality, to the highest ethical and professional standards. All persons, including those accused of offences, will be treated fairly. All victims and witnesses will be treated with respect and sensitivity.
	• Effectiveness - All prosecution decisions will be taken and every prosecution conducted in an effective and efficient manner. We will provide value for money, while delivering a timely and quality service.
2. Digital Vision	The fundamental objective of this strategy is to facilitate a phased shift in the way we deliver our services so that we work more effectively and efficiently and as a result improve services for citizens.
	Our aim is to provide digital solutions to manual processes when doing so will improve the quality or efficiency of a process. We will strive to give back time to our staff so that they can deliver more value. Therefore, we will work to reduce the amount of time spent on low value, wasteful tasks which will increase the time available for more complex, value added work.
	We will build on existing investments in technology ensuring we achieve value for money and will not proceed with projects until it is clear the anticipated benefits outweigh the projected costs.
3. Current Landscape	During the past ten to twelve years our organisation has transformed significantly. We now receive all our cases electronically from the PSNI and engage digitally with the other criminal justice organisations through the Causeway system. We attend magistrates' courts with modern tablet devices and an electronic case file application which enables secure, wireless access to all our systems. We communicate with victims via a secure, online portal.
	Approximately 65 governance meetings at various levels up to Management Board level are held without the need for paper. Embracing the NICS move to shared services for common back-office functions we

	have migrated our human resources and finance functions onto the NICS wide HR Connect and Account NI systems.

Through technology we have supported the significant restructuring of our organisation including the closure of several offices.

These developments have all been built on a secure, stable and modern infrastructure.

We have delivered this significant programme of work whilst our budgets have been reducing. |
| **4. Future Plans** | In the future we will continue to drive change through technology. We will use progressive, agile development methodologies ensuring quick delivery and continuous improvement and we will be flexible and responsive to change. Our technology experts will work hand in hand with experienced user groups and stakeholders to guarantee success.

Our magistrates' courts electronic case file application will be adapted to enable us to work electronically in the crown courts. We will expand electronic information sharing to include video, photographic and audio evidence. Additional organisations such as defence solicitors and Probation Board for Northern Ireland (PBNI) will begin to receive digital information from us. By expanding the use of our secure remote access solution and by wider implementation of video conferencing staff will be able to work in a more responsive and flexible way. |

4. Drivers for Change

The following key drivers for change directly shape our digital strategy:

1. Programme for Government and the PPS Business Plan	The draft Programme for Government 2016 – 2021 (PfG) sets out the priorities that Government will pursue, and the most significant actions it will take to address them. Most importantly to us the PfG aims to achieve a safer community and high quality public services.

Speeding up the criminal justice systems has been a priority since the devolution of policing and justice in April 2010. The speed of the system matters to victims and witnesses, and to their families and communities. It is important to offenders too as early resolution of cases can help with offenders' understanding of the implications of their actions. Overall, speed is one element of confidence in the system. Confidence in the justice system is also important as it helps demonstrate legitimacy and respect for the rule of law.

We will use technology to improve the speed and quality of our service and how we work and share information with other CJOs.

The PPS business plan, which can be found in the publications section of our website at https://www.ppsni.gov.uk, reflects the key priorities and objectives for the PPS during the 2018/19 financial year, in support of the draft PfG framework. As such, the PPS Business Plan can be updated as and when PfG 2016-2021 is implemented, and to reflect the move toward a more outcome-based approach.

Currently our plan is set out under the following corporate strategic priorities and objectives:

SP 1: Supporting a safer community by providing an effective and high quality prosecution service

1.1: To reduce avoidable delay and improve our service delivery through stronger partnership working.

1.2: To promote the highest standard of decision-making, case preparation and advocacy, applying our Quality Standards on a fair and consistent basis.

SP 2: Building the trust of victims, witnesses and the community we serve

2.1: To meet our commitments under the Victim and Witness Charters, providing victims and witnesses with the information and support they need.

2.2: To improve public confidence by engaging effectively with stakeholders and the wider community. |

	SP 3: Strengthening our capability to deliver 3.1: To build and maintain a resilient and sustainable business model within the resources available. 3.2: To strengthen our accountability as a non-ministerial department by developing and maintaining a transparent and effective governance framework. **SP 4: Supporting and empowering our people** 4.1: To deliver the Service's priorities through strong leadership and effective performance management. 4.2: To provide a supportive environment enabling our workforce to meet business needs. Technology will be a critical enabler in ensuring success in meeting these priorities and objectives. In particular the projects detailed in the Citizen Engagement, Empowering our Workforce, Service Improvement and Digital Collaboration between Justice Partners themes in Section 6 of this document will be designed to achieve all 4 of our strategic priorities.
2. Digital Transformation Agenda	We believe that due to changes in technology the public expectations and demands for public sector organisations to move to e delivery service models has changed materially over the recent past. From our discussions with some stakeholders, we understand that the public expect that government will provide access to online services in a secure and user friendly way and in a way that enables them to interact with public bodies and consume services where and when they want. They demand that public bodies will communicate with each other and collaborate to provide improved and co-ordinated services to the citizen and in a way that ensures we spend public money wisely. They want to communicate with government in a way that suits their lifestyle and increasingly expect that they will be provided with access to government via social media channels. Currently we do not communicate with the public via social media. However, we believe that as technology further develops this is an option that we may build into our future plans. We will maintain a sharp focus on delivery for those citizens who come into contact with the criminal justice system and on ensuring we achieve best value for money in delivering this challenging change agenda. We will achieve this be ensuring our projects are prioritised via our ICT Change Board taking into account business value, urgency and alignment against our strategic objectives.
3. Drive towards greater use of shared services	Over the past ten years there has been a drive to provide shared services for back office systems in the NICS. We have integrated our human

	resources functions into HR Connect and our finance functions into Account NI.

In addition there are 2 programmes of work ongoing in the public sector at present. The Retained ICT Services programme is investigating which ICT services should continue to be retained by individual departments and which would benefit from being brought under a shared services arrangement. In addition the Public Sector Shared Services Programme (PSSSP) is investigating how shared services might be provisioned across the wider public sector. These programmes may have an impact on the way we deliver back office systems for functions such as ICT, finance and human resources.

To improve information sharing between CJOs digital collaboration between criminal justice partners will expand to include video, photographic and audio evidence. We will extend digital sharing to include defence practitioners. In the future digital sharing may be supported by block chain technologies. This is discussed in more detail at Section 6.3.

We will ensure we take into account these programmes when planning digital change. |
| **4. Legislative Compliance** | We are living in an era of ever changing data and privacy compliance landscapes and we must ensure the integrity, privacy & security of data.

Of particular importance is the EU General Data Protection Regulation (GDPR) which replaces the Data Protection Directive 95/46/EC and was designed to harmonize data privacy laws across Europe, to protect and empower all EU citizens' data privacy and to reshape the way organizations across the region approach data privacy. We will be required to comply with this legislation and other relevant legislation such as the Data Protection Act.

In addition we are required to comply with environmental legislation when purchasing and disposing of ICT equipment. For example, the Waste Electrical and Electronic Equipment Directive (WEEE Directive) is designed to reduce the amount of electronic and electrical waste going straight to landfill. |
| **5. Cyber Security Threats** | Unfortunately we are living in an age where hackers of various types, from teenagers who copy existing code and execute it to create denial of service attacks, to international organised crime groups who shut down systems and demand ransom payments, are on the increase. They are always busy working out ways to circumvent our well thought out cyber protections. Security companies often are on the back foot and thus tend to react to new emerging cyber threats.

Denial of service attacks, hacking, malware, phishing and spam are all of concern. However, it the rise in digital extortion in the form of ransomware and in particular the WannaCry attack in 2017 that brought this emerging threat to the fore. This global cyber-attack is believed to have infected in excess of 300,000 computer systems worldwide. |

	We will continue to ensure that security, threat prevention and attack detection controls are integrated into each system and project we deliver and that they remain fit for purpose and comply with best practice.
6. Legislative Change	The Criminal Justice Act (Northern Ireland) 2015 introduces a range of legislative changes designed to improve the delivery of justice in Northern Ireland. The act was introduced to: • allow for the implementation of single jurisdiction for county and magistrates' courts; • make changes to the way defendants are committed for trial from the magistrates' courts to the crown courts; • give prosecutors the power to levy fines in certain circumstances; and • improve services to victims and witnesses through the introduction of a victim and a witness charter and by the implementation of victim impact statements. We have already changed our systems to deal with some of the provisions in the act such as single jurisdiction, victim and witness charters and victim impact statements. There will be intensive work over the next 18 to 24 months to ensure the implementation of the remaining elements of the act are supported through changes to computer systems. In particular we will work with Causeway Programme and the other CJOs to implement changes required to support committal reform.
7. Brexit	In a referendum on 23 June 2016, 51.9% of the participating UK electorate voted to leave the European Union (EU). The process of the UK leaving the EU, Brexit, has begun and the nation will leave the EU by 29 March 2019, although there is a 21-month "transition period". It is unclear what impact Brexit will have on the PPS. What is clear is that there will be no impact on domestic criminal law because this is a matter for individual states within the EU. Currently there are systems of co-operation between European Justice Agencies including the European arrest warrant, Europol, The European Investigation Order, the Schengen Information System and Eurojust. These arrangements allow for the execution of arrest warrants and extradition of suspects between European countries, the joint investigation and prosecution of cross-border criminal activities and the sharing of key information on intelligence, suspects and witnesses. If Brexit is to have an impact on the PPS it may be in the area of international criminal law. Further investigation will be required to identify how Brexit will affect PPS and in particular if these changes will have any particular impact on digital working.
8. Reducing budgets	Since the financial year 2014/15 the PPS revenue budget has reduced by 7%, dropping from £37m to £33.5m in 2018/19. It is possible that further

pressures on budgets will continue during the next few years. In December 2017 the Department of Finance published a paper "Briefing on Northern Ireland Budgetary Outlook - 2018-20" which sets out the broad strategic issues that will inform an incoming Executive's decisions on a Budget for 2018-19 and 2019-20. This paper details 3 scenarios which could see our budgets being reduced further over the next 2 years by between 4.9% and 12.0%.

It is essential in light of this that any digital transformation is built on existing investments, is affordable and achieves best value for money. It is also essential that we prioritise proposed digital developments to ensure the changes that achieve most benefit are delivered first.

5. Managing Strategic Risk

Effective risk management is an essential ingredient in successful delivery of strategic objectives. However, it is often very difficult for organisations to accurately predict how their strategic plans will unfold into the future. The rate of change in organisations both from a business and technological point of view continues to grow exponentially making it increasingly difficult to manage strategic risks effectively. However, it is essential that risks are well managed to ensure successful delivery of our strategic objectives.

It is crucial that strategic risk management remains the responsibility of our Board. A risk plan should be produced for each project detailed within this strategy and the most disruptive risks should be filtered up into the corporate risk register.

Technology can enable change in organisations but it can also be seen as disruptive. It is important that technology supported business change is delivered in a way that avoids or mitigates against damage caused by such disruption.

At a high level the key risks and potential disruptions anticipated as a result of the delivery or failure to deliver against the objectives detailed within this strategy are summarised below:

- *Reducing budgets will prevent us from delivering against our objectives:* With expected reductions in budgets over the coming years it will be difficult for us to deliver against our strategic objectives. There is also a risk that the full range of statutory functions and current levels of service cannot be maintained due to anticipated reductions in funding. It is important that focus is maintained on delivering change that has the greatest positive impact on service delivery across our organisation and the wider criminal justice system.
- *Lack of a joined up approach to the delivery of digitally enabled business change across CJOs will not deliver maximum benefit across criminal justice:* There is a risk that the key criminal justice organisations will deliver digital change in silos which will not achieve the best outcomes for public services. It is essential that a joined up, co-ordinated and monitored approach to the delivery of strategic digital change is established. For example, the ability to gather, share, assess and present video, audio and photographic evidence requires close collaborative planning and working between PSNI, PPS, NICTS and defence. This will also require careful management of cultural change;
- *Increased reliance on digital information will leave us vulnerable to cyber threats:* As the PPS, and the wider criminal justice system, increases the extent of digital working and its reliance on digital information the risk of disruptive attacks having an impact on the resilience of the system grows. It is essential that any digital strategic developments continue to maintain the right level of security controls so that this risk is effectively managed.
- *A failure to properly analyse the rich sources of digital data across criminal justice will lead to ineffective strategy and policy decisions:* The increase in digital data available to CJOs presents opportunities. This richness of digital information can be used to inform future strategy and policy decisions. If this data is not properly analysed before deciding on the direction of travel the projected outcomes and benefits will not be fully realised;
- *The introduction of agile working, if it is not properly managed and monitored, will have a negative impact on the wellbeing of our staff and the security of our data:* The ability to work

anywhere, anytime and with the right data needed to perform more effectively and efficiently is of benefit to us as an organisation. We must manage the impact this provision may have on the security and wellbeing of our staff and on the security of our data;

- *Failure to comply with regulatory requirements will leave us open to litigation:* If the PPS does not meet its regulatory requirements, such as its requirements to comply with GDPR, this may result in litigation and ultimately financial penalties and reputational damage; and
- *The capacity to deliver our strategic objectives may be impacted by the loss of experienced staff:* The loss of key experienced members of staff who are key to the delivery of our digital strategy will have an impact not only on business resilience but on our ability to deliver against our strategic digital objectives. Effective contingency plans for replacing staff and growing new talent and experience must be put in place.

6. Strategic Themes

The PPS digital strategy will focus on six themes.

1. **Citizen Engagement**	We will use technology to improve the way we engage with the public and how we deliver our services to citizens. Our Communications Team and our ICT team will work together to enable this change. We will engage with stakeholders to ensure success.
2. **Empowering our Workforce**	We will build technology that provides our workforce with information and systems to enable them to do their job as effectively and as flexibly as possible. Expert user groups, with the support of the ICT team, will be the backbone of this change.
3. **Service Improvement**	We will continue to seek ways to use technology to improve how we provide our services and will strive to continue to improve the quality and timeliness of our work. As with our work to empower our workforce, expert user groups and our ICT team will work together to deliver this change.
4. **Digital Collaboration between Justice Partners**	We will continue to build on the hugely important Causeway information sharing system to further extend the depth and breadth of digital collaboration between Justice Partners. Joint partnership working will continue to drive this change.
5. **Legislative and Policy Compliance**	We will ensure that we comply will all relevant legislative provisions and government policies when providing systems and managing data. Our Business Assurance Branch and our ICT team will collaborate to ensure compliance requirements are met.
6. **Fit for Purpose Infrastructure**	We will continue to provide and develop the foundation of a secure, reliable, scalable and responsive technology infrastructure. Collaboration between our ICT infrastructure team, public sector specialists and experts from IT Assist will shape this change.

6.1 Citizen Engagement

Introduction	Over the past number of years we have worked to improve how we communicate with the public and in particular those citizens that come into contact with the criminal justice system.
	There has been a drive among many public sector organisations to listen more and act upon the needs of citizens. Coupled with this change, innovations in technology have provided the public with new opportunities to directly engage with those who develop policies and procedures in the public sector. This has illustrated the potential to provide an effective feedback loop between citizens and government.
	Social networking platforms can be used to improve communication between organisations, the public and external groups. Although they facilitate open communication they can also elicit negative feedback and, depending on how they are implemented, could require additional resources to review and respond to content. We do not engage with the public via social media at present but may do so in the future.
	NICS have implemented a new citizen facing portal called NI Direct. It is the official government website for Northern Ireland citizens and it aims to make it easier to access government information and services. It does this by working closely with Northern Ireland departments and other public bodies to collate key information based on users' needs. In addition the NICS have developed a range of departmental and agency websites which present corporate based information to the public.
	We have established a communications team who continue to work to develop our communication and engagement strategies and approaches.
	We have a PPS website which is now over ten years old. More modern approaches exist which will enable us to improve how we provide information to the public.
	Victims of crime can now receive updates from us in relation to case progression via a secure online portal called Track My Crime.
	We will work to provide technology that provides information, digital services and feedback loops to citizens especially those that come into contact with criminal justice.
	Throughout this programme of change we will continue to take into account and ensure service provision for those who do not have access to digital channels.
	More detail on how we will engage with citizens in the future can be found in our Communications Strategy which is currently being refreshed and which will be published during 2018/2019.
Project Portfolio	During the lifetime of this strategy we will: • implement a new, more modern website which provides citizens with improved access to the information they need to know about the PPS. This website will help victims and witnesses to better understand what to expect as their case progresses through the criminal justice system, allow citizens to easily log complaints with us and enable us to report our outcomes more clearly and more visibly;

	- review the criminal justice content on NI Direct to ensure that it is fit for purpose and develop a joined up approach to presenting this information ensuring that it is presented in a single location for the public to access; and - consider how we will use social media to improve our engagement with the public.
Outcomes	In delivering these changes we will: - become more visible and engage with the public; - provide improved information which is easier to access; and - gain better insights into where our services might be improved.
Longer Term	In the longer term we will investigate if the following technologies will bring benefits to the PPS: - Victim Information Portal – we will explore how the Track My Crime provision can be expanded to provide victims with seamless access to case updates from other relevant organisations such as PSNI; - Online consultations – we will consider the implementation of a system to allow the public to respond to consultations on new policies via the internet; - Live Chat on our website – we will explore the implementation of live chat functionality on our website. Live chat functionality is already in use across a range of NI Direct services. This could, for example, enable victims and witnesses to discuss their case via a web chat screen as opposed to telephone; and - Feedback loops – we will consider the merits of providing digital mechanisms to enable us to gather feedback from citizens who have used our services so that we can feed ideas into our programme of service improvement.

6.2 Empowering Our Workforce

Introduction	Our workforce is made up of 490 legal and administrative staff spread across our Belfast, Foyle, Newry and Omagh chambers. These chambers service 16 court buildings across Northern Ireland. We have implemented a digital case file solution on secure tablet devices which court workers use instead of paper files. This is discussed in more detail later in Section 5.3 - Service Improvement. We are currently piloting a secure remote access solution on these tablets which will allow our staff at court to access all our systems via a secure Wi-Fi solution. Staff require mobile, flexible access to the right information both in chambers and at court. It is important that technology enables this and does not get in the way. By expanding this capability we will improve the effectiveness of staff during core hours. It will also allow us to consider the provision of out of hours services if required. We have also implemented an electronic meeting system called Minute Pad which has removed almost all paper from our governance meetings. We require intelligent and experienced user groups to work closely with ICT to achieve this. It is critical that these user groups identify key issues and areas for improvement and that they are involved in change through the design, testing and rollout phases. All digital projects must support the success of our workforce and the delivery of high quality decision making, case preparation and case presentation at court. We will work to enhance the end user experience. Change will be delivered through a culture of trust, transparency, shared decision making, user focus, knowledge and experience.
Project Portfolio	During the lifetime of this strategy we will: • evaluate the remote access pilot and if it is right to do so we will expand this solution to all court users. Such an approach will provide us with a more flexible and more resilient workforce; • explore the use of digital pens alongside our digital case file application. This may enable us to speed up data entry at court; • evaluate the need for staff to be able to work out of other Government departments and if there is a need we will explore these technical possibilities; • work with our communications branch to implement a new PPS intranet designed to improve how our staff communicate with each other; • implement video conferencing facilities that provide conference room to conference room, desk to desk and desk to conference room video communications. This solution will include document sharing and collaboration; and • we will review our ageing printing provision and our scanning solutions and modernise them with more reliable and flexible solutions. This will ensure that we maximise our investment in multi-functional printing devices and take account of reduced printing requirements as a result of the rollout of our digital case files.
Outcomes	In delivering these changes we will: • give court users back time which will make them more efficient. They will be able to finish all post court work in court and will not always need to return to the

	office to do this work. If it is possible to do so we will seek to allow users to work from other Government buildings including courthouses. Users will be able to complete most tasks from a range of locations seamlessly; • reduce delay by providing court users with more up to date, enriched case level information and access to online legal reference sites at court; • improve internal communications by making information sharing easier and more applicable to staff roles; • reduce the time spent by some users travelling to meetings through provision of high quality video conferencing facilities; and • make printing and scanning easier and more secure for users through increased use of multi-functional devices.
Longer Term	In the longer term we will investigate if the following technologies will bring benefits to the PPS: • Mobile Data Network Access - we will consider the use of 4g/5g cellular connectivity via mobile devices, either tablets or mobile phones, as a way of providing fully mobile access to our systems; • Collaboration Platforms – we will explore the possibility of implementing internal collaboration platforms to encourage knowledge sharing and closer group working for case work and for projects. Such developments would improve access to knowledge and expand the capabilities of our information driven workforce. These may take the form of private social networking type systems and instant messaging systems; and • Wireless Networking – we will investigate the possibility of implementing a fully wireless networking solution within PPS offices to enable some users to work flexibly within the PPS estate. This may allow us to consider hot desking in the future.

6.3 Service Improvement

Introduction	We strive to continuously improve how we deliver our services. Over the lifetime of the previous strategy we have implemented a range of systems and changes designed to improve what we do. Prosecutors and court support staff can now attend the magistrate's court up to the point of contest with a digital case file and only need a paper file if the case is contested. Victims of crime can now receive updates in relation to case progression via a secure online portal. Lay magistrates no longer sign summons. Summonses can now be signed by PPS prosecutors and digitally laid before the court via Causeway. In co-operation with PSNI under the Working Together Programme we have made improvements to the structure and quality of digital files. We have implemented changes to our systems to improve indictable case progression. Along with NICTS we have changed our CMS so that it operates under the new single court jurisdiction for Northern Ireland rather than the previous multi-jurisdiction arrangements. We have changed systems to support organisational changes implemented as part of our transformation programme including the implementation of our Serious Crimes Unit and our Victim Witness Care Unit. To improve the way we manage high profile, non-standard correspondence we have implemented a private office system which enables the logging, tracking and progression of communication received from a range of sources. Over the past ten years there has been a drive to provide shared services for back office systems in the NICS. We have integrated our human resources functions into HR Connect and our finance functions into Account NI. We utilise some of the IT infrastructure services provided by IT Assist but we are not fully integrated into IT Assist. There are 2 programmes of work ongoing in the public sector at present. The Retained ICT Services programme is investigating which ICT services should continue to be retained by individual departments and which would benefit from being brought under a shared services arrangement. In addition the Public Sector Shared Services Programme (PSSSP) is investigating how shared services might be provisioned across the wider public sector. In the future we will continue to seek ways to improve how we provide our services. We will work with partner organisations to implement changes to legislation, policy and procedures. Changes to how we work will be based on sound analysis of data both within CMS and across the wider criminal justice system. We will seek 'off the shelf' solutions as a first choice rather than bespoke but will continue to own the intellectual property rights for any bespoke development work required. Where it is appropriate to do so we will build modular systems choosing to build on not in CMS. Changes will be built on open standards enabling cross CJO digital information sharing.
Project Portfolio	During the lifetime of this strategy we will: • continue to improve how we evaluate data to make informed decisions around proposed service improvements; • implement the complex changes required to support committal reform as defined in the Justice Act (Northern Ireland) 2015; • provide functionality to support problem solving court initiatives such as Substance Misuse Courts and Domestic Violence Courts;

	- evaluate the effectiveness of the victim information portal and consider ways to improve that service; - implement a range of changes to provide improved support to victims and witnesses such as sharing information digitally with victim support organisations to provide a more joined up service and improvements to our letters to victims to make communications clearer; - continue to expand our electronic case file solution to provide for contested hearings, digital criminal record checking and sharing and digital case presentation; - consider proposal to enhance CMS to facilitate new policy proposals, such as prosecutorial fines and statutory time limits; and - improve how we manage our ICT service by implementing a new service desk system with improved service level monitoring.
Outcomes	In delivering these changes we will: - make better and more informed decisions on what changes we decide to proceed with; - achieve operational and organisational efficiencies by refining and improving our processes, for example, automating them where possible, removing unproductive ones and therefore enabling staff to concentrate on qualative rather than processing activities; - reduce the time it takes for cases to progress through court by ensuring staff have access to the right information, at the right time and where they need it; - communicate in a more effective way with victims and witnesses; - improve the quality of information we bring to court and enhance the way we present cases at court; and - support criminal justice partners in providing better, more tailored approaches to specific problems such as substance misuse and domestic violence.
Longer Term	In the longer term we will investigate if the following technologies will bring benefits to the PPS: - Shared Services – We will work with the Retained ICT Services Programme and the PSSSP to agree which shared services changes are most appropriate to the needs of the PPS; - Crown Court Digital Files – We will explore the possibility of working digitally at the crown court. Crown court cases are generally much more complex than magistrate court cases. Any solution delivered must ensure that PPS, prosecuting counsel, the Judiciary and the defence all have access to the same digital court case bundle. This work will need to dovetail into the work to improve digital presentation facilities at court; - Artificial Intelligence –. The Serious Fraud Office in the UK has implemented an upgrade to its document analysis capability which harnesses artificial intelligence to scan up to half a million documents in a day. In a recent press release they stated that they used it recently to scan documents for legal professional privilege content in a case against Rolls-Royce at speeds 2,000 times faster than a human lawyer. The system will enable case teams to better target their work and time in other aspects of investigative and prosecutorial work. It may be possible to use such technology in the future to identify which documents may need to be disclosed to the defence. We will explore PPS processes and consider if AI could supplement human decision making to improve how we work; and

- Blockchain - A blockchain is an encrypted digital ledger that is stored on multiple computers in a public or private network. It is made up of blocks or data records. Once these blocks are collected in a chain, they cannot be changed or deleted by a single actor; instead, they are verified and managed using automation and shared governance protocols. Blockchain technology could make it easier to manage certain blocks of information. This technology may in the future make it easier for public sector organisations to access and use critical public-sector data while maintaining the security of this information.

6.4 Digital Collaboration between Justice Partners

Introduction

The Causeway Service enables criminal justice information created and shared by one organisation to be shared with or made immediately available for use by the others, based on agreed sharing rules. In 2005 the first release of Causeway was implemented. This enabled us along with PSNI and FSNI to share some information digitally including the full case file, forensic reports, requests for pre-charge and prosecutorial advice, requests for further information, review of charges and prosecutorial decisions on cases.

In 2009 the system was expanded to incorporate digital information sharing with NICTS and NIPS. At the same time the breadth of digital information shared expanded significantly. In addition to the information shared as part of the first Causeway release these 5 organisations now share digital information in respect of summonses, court listings, bail hearings including bail conditions, court applications, statements of complaint and bills of indictment, hearing outcomes including pleas, findings and sentences and appeal hearings. We send and receive in excess of 3 million digital messages via Causeway per annum in relation to approximately 45,000 cases.

The Causeway Service also created and enabled electronic web based access to the NI Criminal Record database and viewer (CRV) service for organisations both in Northern Ireland and Great Britain that have a legitimate right to access this information.

We share bundles of evidence with prosecuting counsel, defence solicitors, NICTS and PBNI. These bundles are printed and served as physical papers. Sometimes up to 7 copies of these bundles, which can be quite voluminous, are printed and sent to relevant organisations.

We prosecute cases on behalf of a range of other government organisations such as SSA, DEARA, DVA, OPONI and Airport and Harbour Police. These organisations are not linked via the Causeway service. However, the PPS have worked with these organisations to enable limited digital information exchange of key data via secure email.

The PSNI in 2017 began implementation of Body Worn Video technology and are in the process of rolling this out across Northern Ireland. Currently this BWV evidence along with other video, audio and photographic evidence is shared in physical form on encrypted disks and printed photograph albums. This is time consuming and inefficient.

	In the future we will continue to work with our criminal justice partners to increase our digital sharing capabilities. We will also work with Causeway and other organisations not linked via Causeway to expand the solution to a wider range of departments, agencies and investigative forces.
Project Portfolio	During the lifetime of this strategy we will: • work with PSNI to enable the digital sharing of video, audio and photographic evidence between PSNI, PPS, Defence and NICTS via a secure Digital Asset Management (DAM) solution; • work with Causeway and other CJOs to expand the digital sharing functionality where required and fully support Cross-CJO Criminal Justice Digital Strategy initiatives; • build upon the DAM solution to enable digital sharing of evidence bundles with prosecuting counsel, PSNI, NICTS, Defence and PBNI; and • explore the possibility of using video conferencing facilities across CJOs to replace some physical meetings.
Outcomes	In delivering these changes we will: • provide staff with access to all information available that is required to speed up the decision making processes and ultimately the overall justice process; • in collaboration with PSNI, remove current problems and inefficiencies linked to the sharing of physical media evidence. These problems and costs include unplayable discs, loss of discs in transit, delays caused by physical transport and production/transportation costs; • ensure that the right evidential information is shared digitally with the right organisation at the right time thus reducing delay and the costs and risks associated with the physical production, movement, storage and disposal of papers; and • save time and costs associated with travelling to meetings that can be delivered via video conferencing;
Longer Term	In the longer term we will investigate if the following technologies will bring benefits to the PPS: • Digital Sharing with other organisations – we work with Causeway and their supplier to see if an economical mechanism for 'on-boarding' other relevant organisations into the digital sharing service can be provisioned; and • Consuming new digital evidence – PSNI plan to introduce a range of new technologies such as wearable technology, handheld automatic number plate recognitions systems, biometric facial recognition, video and artificial intelligence in interviews as well as autonomous transcription. In the future the public will be provided with mechanisms to securely submit multimedia evidence they have captured on smart phones. We will work with PSNI to ensure we have joined up ways to receive, consume, use and share this information.

6.5 Legislative and Policy Compliance

Introduction	There are a range of government policies, regulations and areas of legislation that we must comply with. Whilst delivering digital services we will continue to comply with relevant regulations and legislation. The General Data Protection Regulation (GDPR) is a regulation by which the European Parliament intend to strengthen and unify data protection for all individuals within the European Union. The GDPR also brings a new set of "digital rights" for EU citizens and It becomes enforceable from 25 May 2018 following a 2 year transition period. We are working towards implementation of changes required to support the implementation of GDPR. We will continue to comply with other data handling legislation such as the Data Protection Act. Data and system security is very important to us. We comply with all relevant government security regulations to ensure our systems are secure and we promote an awareness of threats including cyber security threats within the organisation. We ensure that we comply with the UK Cyber Security Strategy. With the support of our Business Assurance Branch, we ensure our systems are independently health checked and accredited. In addition we encourage a culture of personal accountability and responsibility in relation to data handling and system security. We apply a proportionate risk management approach ensuring we safely manage key risks. Waste Electrical and Electronic Equipment Directive (WEEE Directive) is designed to reduce the amount of electronic and electrical waste going straight to landfill. We only use organisations who comply with the WEEE directive when procuring and disposing of ICT equipment. The PPS are provided with procurement support from Central Procurement Directorate. Together we ensure that all procurements required to support digital projects comply with public procurement directives and regulations.
Project Portfolio	During the lifetime of this strategy we will: • implement systems and changes required to support compliance with GDPR including the implementation of an Electronic Document and Records Management System and changes to CMS to support the proper retention and disposal of personal information; • work with Causeway and other CJOs to understand how the Causeway service needs to be changed to comply with GDPR legislation; and • continue to comply with all other relevant regulations and legislation and ensure our systems are independently security tested and accredited.
Outcomes	In delivering these changes we will: • ensure that we comply with regulations and legislation; • keep our data and systems safe and secure; and • only keep data for as long as we should.
Longer Term	In the longer term we will continue to keep abreast of upcoming regulations and legislation and we will work to ensure we continue to remain compliant.

6.6 Fit for Purpose Infrastructure

Introduction	We have evolved our ICT infrastructure over the years to provide a stable and secure service that performs to the required standards. We have a central data centre and a disaster recovery site based mainly on virtual server technology and we backup our data to disk to provide point in time recovery in the event of data corruption. These facilities are all provided on PPS premises. Our offices are connected using the Network NI MPLS wide area network. Newer technologies such as cloud computing would provide the PPS with a more flexible, scalable and future proofed way to provide ICT services. Security, component upgrades, backup and disaster recovery would be managed by the cloud provider. This service could be provided by a private company or by the NICS via IT Assist. All future initiatives will: • strive to reduce complexity and cost and provide flexible, user centric solutions; • ensure our hardware and software is maintained to supported versions and that security is not compromised; • balance future business need and previous investment in the current estate to ensure that value for money is achieved; • remove single points of failure and redundant components and dispose of equipment in a secure manner; • provide tried and tested backup, disaster recovery and business continuity planning services; • manage service level agreements and service availability effectively; and • comply with all relevant sustainability and environmental regulations.
Project Portfolio	During the lifetime of this strategy we will: • evaluate the costs and benefits of both the private IT Assist security enhanced cloud and public cloud and determine which services can be provisioned in these environments; • move relevant services into the right cloud environment based on this evaluation; • ensure that components required for services which remain 'in-house' are maintained to supported versions; • ensure that every user has a modern desktop or tablet computer operating on Windows 10; • migrate from Network NI to any new public sector wide area network; • work with the NICS Retained Services programme and the PSSSP programme to determine how PPS ICT services should be provisioned in the future; and • continue to balance security requirements and business need to deliver solutions that improve services and empower users in a secure way.
Outcomes	In delivering these changes we will: • provide a flexible, secure, reliable, resilient and scalable infrastructure that performs to the required standards; • reduce the costs associated with the provision of ICT infrastructure; • achieve value for money in our ICT infrastructure investments; • develop greater flexibility and efficiency in the way we provide infrastructure required to support services;

	- ensure closer digital collaboration with justice partners which will enable quicker provision of joined up services; and - deliver best of breed, trusted and valued ICT services.
Longer Term	In the longer term we will investigate if the following technologies will bring benefits to the PPS: - Migration of our CMS from a client server architecture to a web application architecture. Web applications avoid the burden in deploying onto each client machine and don't have to enforce a version check on the client machine. They can be accessed from any device that has a browser installed and are platform independent. Deployment of updates and bug fixes are simplified which makes support and maintenance easier. They provide a more adaptable approach to mobile working. However, desktop applications generally give a more superior user experience compared to web applications; and - Implementation of Wi-Fi networking in our offices which could provide a more flexible office space.

7. Delivering the Strategy

It is crucial that we deliver the initiatives outlined in this strategy in a way that ensures identified benefits are realised. We will work to ensure that we use financial, staffing and supplier resources in the most optimal way to deliver the change programme within available budgets and according to agreed timescales. We will ensure transparency in what we plan to do and what we deliver and will publish updates on progress against key initiatives each year via our Annual Report.

1.	**Governance and Planning**	This digital strategy is owned by the PPS Management Board and will be managed and driven by the PPS ICT Change Board using the already established change control procedures. Changes will be prioritised using the change board prioritisation matrix which evaluates business value and urgency when determining the importance of a change to the organisation. Changes will be specified and costed and will be supported by business cases which will be presented to the PPS ICT Change Board and then to the relevant governance board for approval. We will deliver projects in order of priority and within the overall budget allocated for ICT change. A rolling strategy delivery plan will be published and will be updated annually. Individual project delivery plans will be developed at the start of each project and will be maintained throughout the lifetime of the project. Procurements will be taken forward as required to support implementation. We will utilise the services of our procurement branch and CPD and will use existing government contracts and frameworks where possible. We believe this is a governance structure that is flexible and responsive enough to enable not stifle change. We are concerned that the lack of a joined up approach to the delivery of digitally enabled business change across CJOs will not deliver maximum benefit across the entire criminal justice system. If the key CJOs plan to deliver digital change without co-ordinating their change programmes, this could result in a disjointed approach which does not achieve the maximum benefit. It is essential that a joined up, co-ordinated and monitored approach to the delivery of strategic digital change is established by the CJOs. Work has already started within Department of Justice to align the digital strategic objectives of the key CJOs.
2.	**Development and Implementation**	Where possible we will use iterative and agile development methodologies to deliver change in smaller, quicker bursts using prototyping approaches as opposed to long and detailed specifications. We will work closely with our experienced user groups to ensure success.

	When agile development is not appropriate we will use a more traditional approach by defining requirements in more detail and using Prince 2 project management practices to ensure proper delivery of each project. We will ensure that we use the right blend of in-house staff and supplier resource to deliver value for money. We will look for development opportunities for our staff so that they learn and grow through the change. We will train our staff when we identify gaps between their skills and those required to deliver the programme. We will continually monitor delivery and spend throughout each project and across the overall programme of work.
3. Evaluation and Benefits Realisation	We will ensure that each project is closed by assessing how benefits have been realised by documenting lessons learned. These will be documented in the form of Post Project Evaluations. We will ensure that any lessons learned are transferred into future projects.

8. Glossary of Terms and Abbreviations

Account NI	Account NI is the finance shared service for local Government Departments and utilises e-business channels to deliver streamlined services.
Agile Development Methodology	Agile software development describes an approach to software development under which requirements and solutions evolve through the collaborative effort of self-organising cross-functional teams and their end users.
Brexit	The process of the United Kingdom leaving the European Union
BWV	Body Worn Video - wearable video recording system used to record events in which police officers are involved.
Causeway	The Causeway Service is a strategically important database and data sharing messaging system which provides an integrated system to support information sharing between the five main users (i.e. the NI Criminal Justice Organisations) line of business case management systems. The Causeway Service defines de facto standards for communicating criminal justice case related information for and between criminal justice organisations in Northern Ireland.
CJO	Criminal Justice Organisation
Client Server Technology	Client-server Technology consists of client systems (commonly PCs) and servers both communicating over a computer network and includes both client and server software.
Cloud Computing	The practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than local servers
CMS	The PPS Case Management System
CRV	The Causeway electronic Criminal Record Viewer.
CPD	Central Procurement Directorate.
DAM	Digital Asset Management System – A system used to store and manage digital assets such as video, audio and photographic files.
DAERA	Department of Agriculture, Environment and Rural Affairs
DVA	Driver and Vehicle Agency
EU	European Union
FSNI	Forensic Science Northern Ireland
GDPR	General Data Protection Register
HR Connect	HR Connect is the human resources shared service for local Government Departments.
IT Assist	The NICS shared service for ICT infrastructure provision.
MPLS	Multiprotocol Label Switching is a type of data-carrying technique for high-performance networks and is the technique used in Network NI.
Multi-functional Printing Devices	Networked devices that combine multiple functions of photocopying, printing and scanning.
Network NI	The NICS wide area network
NICS	Northern Ireland Civil Service
NICTS	Northern Ireland Courts and Tribunal Service
NI Direct	NI Direct is the official government website for Northern Ireland citizens. It brings together lots of information from government departments and agencies, written in language that is easy to understand.
NIPS	Northern Ireland Prison Service

OPONI	Office of the Police Ombudsman for Northern Ireland
PBNI	Probation Board for Northern Ireland
PPS	Public Prosecution Service for Northern Ireland
Prince 2	PRINCE2 (an acronym for PRojects IN Controlled Environments) is a process-based method for project management and is used extensively by the UK Government.
PSNI	Police Service of Northern Ireland
PSSSP	Public Sector Shared Services Programme has been established to take forward the NI Executive's commitment to the extension of shared services
Serious Crime Unit	The PPS Serious Crime Unit deals with a range of the most serious offences including murder/manslaughter, rape and serious sexual offences, human trafficking, prostitution and related offences.
SSA	Social Security Agency
Track My Crime	Track My Crime is an innovative online service which enables PPS to communicate with victims of crime via a web portal.
Victim Witness Care Unit	The PPS Victim and Witness Care Unit (VWCU) provides a single point of contact within the criminal justice system. Its primary role is to keep victims and witnesses fully informed of the progress of their case throughout the criminal justice process.
Virtual Server Technology	A virtual server is a server that shares hardware and software resources with other operating systems, versus dedicated servers. They are more cost-effective and easier to manage than dedicated physical servers.
Web Application Architecture	Web applications or web apps are client–server computer programs in which the client runs in a web browser.
Wide Area Network	A computer network in which the computers connected may be far apart, generally having a radius of more than 1 km