SCOTTISH POLICE AUTHORITY

Agenda Item 8

Meeting	**SPA Board Meeting**
Date	**31 May 2018**
Location	**COSLA, Verity House, Haymarket Yards, Edinburgh, EH12 5BH**
Title of Paper	**Digital, Data and ICT Strategy**
Reference	**B05.2018/03**
Presented By	**David Page, Deputy Chief Officer**
Recommendation to Members	**For Approval**
Appendix Attached	**Yes** **A. Data, Digital and ICT Strategy** **B. Strategic Outline Business Case (SOBC)** **C. Delivery Plan**

PURPOSE

The purpose of this report is to:

- provide members of Scottish Police Authority with an update on the work undertaken to date by Police Scotland, supported by Ernst & Young (EY), with regard to the development of our Digital, Data and ICT Strategy and,

- seek **approval** for the planned direction of travel in taking the work forward.

1. BACKGROUND

1.1 The urgent need for Police Scotland to have an effective ICT capability has been very well documented:

> The i6 programme was a key component of police reform. Its failure means that some of the benefits that should have arisen from implementing it, have been, at best, delayed. **There was a need to modernise police ICT systems six years ago** when the procurement of i6 began.
>
> **That need has not been met**. Police officers and staff continue to struggle with out-of-date, inefficient and poorly integrated systems. This also hinders how Police Scotland interacts and shares information and intelligence with the other parts of the justice system.
>
> **There is an urgent need to determine what the next steps** should be, and to carry out an honest assessment of how to procure, develop and deliver the much-needed police IT system.
>
> ***i6: a review Audit Scotland March 2017***

1.2 Police Reform

Following the failure of the i6 project, the technology transformation of the legacy forces' ICT platforms remains to a large extent outstanding, despite progress across a number of areas. This continues to present multiple problems and challenges to the service in terms of weakening our operational effectiveness, data and information management and efficiency in delivering the policing services that our communities deserve. The proposed DDICT strategy and plan will not only deliver the outstanding benefits of the i6 programme but a much wider set of urgently need technology and data capabilities for the wider service. Details are contained in the Appendices attached.

1.3 Policing 2026

The Policing 2026 Strategy clearly articulates the urgent necessity for Police Scotland to have a **significantly enhanced technology capability** to effectively and efficiently service and protect the people of Scotland.

1.3.1 **Technology – The Threat**

a. The External Threat & Risk

The use of technology is now prevalent through our society and its use and utility continues to expand into every aspect of our lives at an incredible pace. Whilst the ongoing advances in technology and the more efficient use of the hugely expanding amount of information and data that is now generated about all aspects of people lives creates many opportunities for society – it also creates many opportunities for criminals.

> *'**Criminals quickly adopt and integrate new technologies** into their modi operandi or build brand-new business models around them.*
>
> *The use of **new technologies** by organised crime groups (OCGs) has an impact on criminal activities across the spectrum of serious and organised crime. This includes developments online, such as the expansion of online trade and widespread availability of encrypted communication channels.'*
>
> ***Europol Serious and Organised Crime Threat Assessment 2017***

b. The Internal Threat & Risk

As clearly described in the Auditor General's report on i6 (see 1.1) the investment and improvement in Police Scotland's Technology is **now six years overdue**.

Without a fundamental strategic investment in technology (supported by a detailed Business Case and an achievable, robust and integrated Police Scotland Vision, Strategy and Delivery plan) our current technology capability will continue to fall short in giving our officers and staff the tools they need to do the job to best serve our communities. The gap between where we are now and where we need to be (to meet the ambition of Policing 2026) will inevitably only get greater and the strain for covering this gap will inevitably fall back on our officers and staff.

In addition to the increasing pressure on our officers (operating inefficient processes with out of date or no technology) they will be facing the increasingly sophisticated Threat, Harm and Risk from criminals who **are investing heavily** and who will be utilising technology to its fullest. This will create further strain on the service, increase the risk to the public and our officers and will undoubtedly inhibit our ability to prevent the public being exploited and targeted by highly sophisticated technology enabled criminals.

Additionally, we will be continuing to operate in a way that is inefficient, which wastes resources and money. The lack of a current, relevant and an attractive technology based operating environment for our officers and staff will also impact our ability to attract the future talent we need to grow and support the service. Eventually people will just not join an organisation which is rooted in the 20th century and is not keeping pace with norms of the society that we live in.

Technology – The Opportunity for Policing

> ***Digital Policing*** *- will make it easier for the public to make contact with the police wherever they are in the country, enable us to make better use of digital intelligence and evidence and transfer all material in a digital format to the criminal justice system.*
>
> ***Policing 2025 National Policing Chief's Council***

A clear integrated vision, strategy and plan – supported by the necessary investment - **will enable** Police Scotland to develop an effective **Digital Policing capability** enabled by a highly efficient data & technology operating model that will enable us to:

- ✓ Provide the public with the **ability to contact us** how they want to contact us.
- ✓ Provide the **fastest most relevant response** to calls for our help.
- ✓ Have a much higher percentage of our officers **spending more of their time out in communities** they serve.
- ✓ Provide our officers with the **most accurate, relevant and timely information** to enable them to:
    - o **Prevent** crime by using the best information and predictive analytical tools available.

- Quickly and effectively **help** the most vulnerable in our society (those with mental health issues, the victims of abuse, missing persons etc.)

- Support **early detection** of crime and to bring those who commit crime swiftly – through effective use of the data available and by sharing with our partners - to justice.

- **Keep pace** with the fast developing technology capabilities that serious criminals now deploy in both virtual/cyber and real physical environments to carry out crime.

- Effectively **monitor, prevent** and respond to the ongoing severe threat terrorism.

✓ **Attract the future talent** (officers and staff) to the organisation that we need to grow our future capability and keep the service relevant and staffed with highly capable technologically literate people who reflect the society they and we all live in.

✓ **Data & Privacy –** the bedrock for all of our needed future technology capability is data. Its capture, its utilisation, its safe storage, it's sharing with partners and the analysis and exploitation of it. By investing in a robust, well controlled technology operating environment we will be able to provide the best information, data and analytical capability possible to our officers and partners to enable them to do their jobs as effectively and efficiently as possible.

Additionally, we will ensure our data is well controlled, meets all regulatory and compliance requirements, and is (where appropriate) easily and transparently auditable to demonstrate that we only hold, use and exploit data that legally we have a right to for the right purpose and that the data is destroyed in line with the relevant requirements. In order for Police Scotland to be truly effective the public must have confidence, are satisfied and are supportive that the tools, processes, utilisation and our regulatory compliance in relation to data is right, proper and appropriately transparent.

✓ **Financial Sustainability** - The efficiency improvements necessary to achieve long term financial sustainability will not be achievable without the level of technology investment we require.

2. The Future - Digital, Data & ICT (DDICT)

2.1 **Strategic Context** - The strategic context for the service urgently requiring a significant improvement in our technology capability is outlined above. At the outset we determined that we needed to develop an **integrated national** level 'Vision, Strategy and Delivery Plans' across **Digital, Data and ICT (DDICT) services** and we developed our approach from this initial requirement.

2.2 **Key Planning Factors** - In developing the future DDICT we considered the following factors:

- **Policing 2026 -** The need to align the DDICT to the Strategic Outcomes set out in Policing 2026 including the need to establish and sustain the professional capabilities which will enable Police Scotland to maintain Digital Solutions which continually match the changing needs of Police Scotland and its partners.

- **The Legacy ICT/Data Estate** - The need to address the consequences and risks of an ageing and fragmented IT Estate.

- **Affordability/Cost** – the need to develop a robust business case (based on SG & HMT Green Book guidelines).

- **Achievability** – The public sector landscape in the UK is littered with failed ICT projects both large and small (including our own i6). In developing our approach we were highly cognisant of this and ensured that in our planning we built in the lessons learned from these previous projects (*including from* ***Principles for a digital future: Lessons learned from public sector ICT Projects****. Audit Scotland May 2017.*), our own capabilities, risk, our existing 3 Year Implementation Plan, the need to integrate BTP and the other activity and pressures on the service.

3. FURTHER DETAIL ON THE REPORT TOPIC

3.1 An early assessment determined that we did not have the capacity or capability internally, alongside all other in-flight activity, to undertake the required work to develop the integrated Visions, Strategy and Delivery Plans for the DDICT. Therefore we determined (with the support of SPA) that we would engage with external Professional Services to deliver a number of essential products that would allow us to develop the necessary products to support the development of the DDICT.

3.2 An Invitation to Tender (ITT) process was undertaken at the end of 2017 to engage Professional Services to assist Police Scotland in the Initial phase (Phase 1). As a result of the ITT, EY were awarded the contract.

3.3 During the period January 2018 to the end of April 2018 EY alongside Police Scotland teams undertook the work to develop the initial products. These are described below:

- **ICT Digital & Data Strategy -** This lays out how we will use technology to support how we improve policing in Scotland. It states the **Why?** (We have historically underinvested in the technology and information that enables us to support communities) and the **How?** (A phased approach that will make a difference to our people at each stage) This describes the differences this will make and the real advantages for Police Scotland including: a better work experience for our colleagues, improved services for our communities, reduced risk, and efficiencies.

- **Strategic Outline Business Case (SOBC) -** This highlights that in order for the service to achieve its objectives we will require a substantial investment from the Scottish Government in order to deliver the technology improvements we need. The SOBC identifies the investment (utilising 2017/18 pricing) required as being up to c£206m. This level of investment required outstrips our current budgetary capacity and would require the Scottish Government to consider a stand-alone bid (via normal SG Infrastructure and HM Treasury Green Book processes and governance approvals e.g. a SOBC, OBC and FBC).

- **Outline draft Delivery Plan -** This document contains in a single location all the support deliverables created during the DDICT work undertaken between January and March 2018. This includes:

    - Strategic ICT Blueprint
    - ICT Roadmap Overview Placemat
    - Reference Capability Architecture
    - Defining Transition States
    - Data and Information Architecture

- 100 Day Delivery Plans (Next Phase Plan for a Plan)

3.4 Police Scotland - Executive Approval

These products and the direction of travel have been reviewed and approved by the Police Scotland DDICT Steering Group and Police Scotland Senior Leadership Board (SLB). These are attached at the Appendices for reference. The products have been completed ensuring the need to:

- align to the Strategic Outcomes of 2026 Strategy
- to address the consequences of an ageing and fragmented IT estate (this incorporates the outstanding i6 related work into the broader agenda)
- to identify the capability and capacity required to deliver the strategy
- the current 3 year implementation plan (which includes the Corporate Service TOM and Core Operating Solutions Programme)
- HM Treasury Green Book standards and existing financial and budgetary planning (2018/19 budget, 3 Year Financial Plan and the Long Term Financial Strategy (LTFS).

3.5 Moving into next Phases

Following the completion of the above, the Force Executive and SPA Board approval we are now moving into **Phase 2** of this project with EY to develop the next set of products which includes:

- The **development of the 100 Day plans** into a detailed proposal
- The production of the **OBC & detailed planning**
- The **integration** of all of the above with our existing in-flight BAU and Change activity.

3.6 Control, Governance & Risk

All of the above activity creates additional risk and this needs, and will be, carefully considered in the context of all of all other BAU and Change activity (planned/in-flight) and in the service's ability to

absorb and safely manage the associated change delivery risk alongside all other relevant factors impacting the service.

We will proactively consult with key partners and stakeholders in considering and determining risk and what prioritisation/mitigation actions are required as and when appropriate. We will build all appropriate learnings from partners and our own risk assessments into future planning, prioritisation and planning. Additionally;

- **Office of Government Commerce (OGC) -** We have also engaged with the OGC to provide support to us via **Gateway Reviews** and we have already undergone **Gateway Zero (Strategic Assessment)** in the context of the current change plans.

- **Police Scotland -** Control & governance of the above will be managed via the existing Police Scotland control and governance forums.

- **SPA/SG** (Oversight/Scrutiny) – we will work with SPA and SG colleagues in supporting their oversight and scrutiny requirements.

3.7 Stakeholder Engagement/Consultation

We will proactively consult and engage with all relevant key stakeholders both internally within the service, key partners (across health, criminal justice), local councils (COSLA etc.) and SG colleagues (Police, Finance, ICT Oversight, Procurement etc.).

3.8 Indicative High Level Timeline

An indicative high level timeline of the proposed phases is shown below:

Phase	Activity	Date
1	ICT Strategy, SOBC & Delivery Plans	Jan – Mar 2018
2	OBC and 100 Day Planning (will inform detail of Phase 3)	May – Aug 2018
3	FBC, detailed implementation plan, open tender of Strategic Delivery Partner	Sep/Oct – onwards (start of 5 year implementation plan)

N.B. The above is indicative and is subject to further detailed planning, risk assessment and is dependent on funding availability and timing.

4. FINANCIAL IMPLICATIONS

4.1 There are financial implications in this report.

This work has substantial financial implications and will be aligned to the three phases as previously referred to. The breakdown being:-

- Phase 1, £0.65m (completed, 17/18 funding)
- Phase 2, estimated costs £1.5m (18/19 funding allocated)
- Phase 3, estimated costs c£206m* (no funding allocated)

**subject to full financial modelling and relevant approvals*

5. PERSONNEL IMPLICATIONS

5.1 There are no personnel implications associated with this paper however the development of the 100 day plans will require existing staff to engage in this piece of work so careful planning of BAU, existing change work and the new 100 Day work will need to be carefully risk assessed and managed re workload, welfare and operational/change impact.

Future implications on our workforce are assessed as being positive. This proposal would ensure that our people have access to the right data and technology to undertake their roles more effectively by removal of duplication of effort within the service

6. LEGAL IMPLICATIONS

6.1 There are no legal implications in this paper

7. REPUTATIONAL IMPLICATIONS

7.1 There are no reputational implications associated with this paper.

8. SOCIAL IMPLICATIONS

8.1 There are no social implications associated with this paper.

9. COMMUNITY IMPACT

9.1 There are no community implications associated with this paper.

10. EQUALITIES IMPLICATIONS

10.1 There are no equality implications associated with this paper.

11. ENVIRONMENT IMPLICATIONS

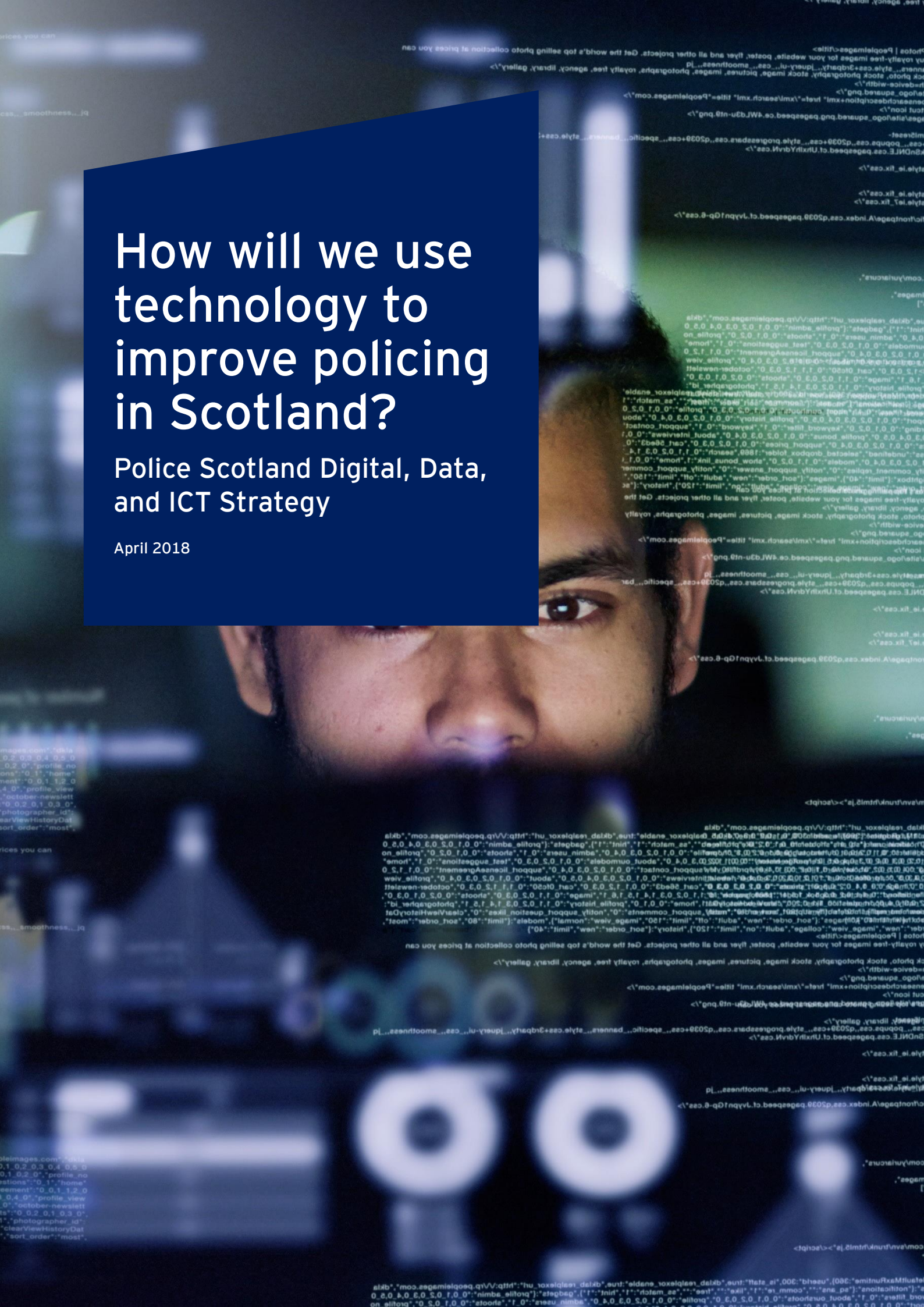
11.1 There are no equality implications associated with this paper.

RECOMMENDATIONS

Members are requested to:

1. Discuss the development of the DDICT and associated products, the high level plan and the approach taken to planning, risk assessment, control and governance.

2. Approve the overall Direction of Travel of the above.



How will we use technology to improve policing in Scotland?

Police Scotland Digital, Data, and ICT Strategy

April 2018

Contents

Why are we doing this?

We have historically underinvested in the technology and information that enables us to support communities, and we have ambitious plans to change how we work.

Underinvestment in core systems

Other UK Forces have invested in technology much faster than we have – modern policing systems and mobile devices are common, and allow officers to work away from stations for more of their time.

In contrast, we have historically underinvested in technology. This has left us with current systems which are old and built around legacy force requirements. They require us to capture the same information many times. Fewer than 3,000 of our officers have mobile devices – and these are coming to the end of their useful life.

We have a number of systems doing the same thing for different areas, as a result of the merging of eight legacy forces. The technology the systems run on and the data which enables it are also fragmented which means an officer in Strathclyde works differently to an officer in legacy Lothian or the Highlands. This does not support us to be one Force.

Data limitations restrict innovation

As a consequence of the underinvestment in Core Systems, the Police Scotland data estate has also been neglected for some time, leading to data quality and availability concerns. These challenges hamper the Force's ability to be as effective as possible at accessing, understanding and utilising key data assets.

Our technology teams are too focused on maintaining old, complex technology and are not able to respond as quickly as they would like to new requirements.

Technology is moving fast – for example, West Yorkshire are trying remote finger printing to reduce the need to bring people to the station and Durham are using Artificial Intelligence to try to identify individuals at risk earlier.

We want to catch up and innovate.

Enabling Policing 2026

We need technology and data that supports the strategic objectives in Policing 2026 and make the most of the money we spend on ICT.

We aim to provide the **technology and data capabilities,** and **ICT support** Police Scotland needs to improve the safety and wellbeing of people, places and communities.

We have set ourselves four key objectives:

1. Support Policing 2026 by putting in place the technology and information needed to change how we police our communities
2. Replace an ageing and complex legacy ICT estate to support the Force to operate as a single, integrated organisation
3. Create the ICT and data capacity and capabilities which allow us to support and respond to changing needs over the next 8 years
4. Help achieve a balanced budget for Police Scotland by improving efficiency and reducing costs associated with information management technology.

Diagram 1 Strategic Context

Design Principles

In order to meet the strategic objectives of Policing 2026 and inform our approach to investment in technology and data, we have adopted six Design Principles

Our aim will be to simplify and standardise the Digital, Data & ICT assets that we utilise to support all aspects of Policing. This will support outcomes relating to efficiency but will also provide better access to data and tools which will improve the interaction that communities and public will have with Police Scotland.
We will also seek to adopt industry standard solutions where appropriate, unless there is a compelling reason not to.

We will adopt leading practices and provide opportunities for our staff to follow professional career paths. We will blend efficient operation of legacy ICT estate (while it continues to exist) and Agile delivery which will enable solutions to be delivered and evolved at pace.
Our organisational capability (which may include third parties as well as internal staff) will be designed to fulfil Police Scotland's needs for rapid adoption of technology and will provide access to the right skills and expertise when required.

We will become expert in managing and exploiting our data and information assets. In doing so, we will develop a better understanding of the services we deliver to communities and the public and also of the factors which determine our own performance as a Police Force. We anticipate that data and information will play an increasingly important role in enabling Police Scotland to direct Policing operations.`

We will provide the capability to integrate our core systems where there is benefit to do so. This will improve efficiency, enable more effective response and also enable us to work in collaboration with partner organisations. Our approach to integration may comprise both tactical and strategic solutions depending upon the priorities of the outcomes we are seeking to achieve.

We will adopt a service led approach to the delivery of Digital Solutions, taking account of the needs of law enforcement stakeholders and other partner organisations.
We will seek to adopt, adapt and re-use solutions developed within Policing and by our partner organisations.
We will also provide solutions and tools which enable Officers and Staff to respond most effectively to evolving forms of crime (such as Cyber).

We will adopt a portfolio based approach to prioritising, scheduling and delivering our investments in Digital, Data and ICT. Our investment decisions will be based upon a balance of value, cost and risk (not necessarily lowest price) and the decision criteria will be determined by Policing 2026.

Data powers digital

Data and information are at the heart of policing. Our ability to harness this asset to drive confidence, trust and value, will underpin the success of Policing 2026

Data and Information are key enablers for policing

The majority of data obtained and stored by Police Scotland is currently held in a variety of police systems and databases.

This data is used widely for many policing purposes and holds significant value with respect to the effective operation of the force. It is information upon which decisions are made, investigations are conducted, offenders are apprehended, prosecutions are managed, and victims and the public are protected.

Just as good quality data and information are vital in the fight against crime, they are also key to the effectiveness of our transformation.

The full benefits of our new systems and processes will only be as good as the data that underpins them.

Harnessing data and information to drive better outcomes

We aim to become expert in managing and exploiting our data and information assets. In doing so, we will develop a better understanding of the services we deliver to communities and the public and also of the factors which determine our own performance. We anticipate data and information will play an increasingly important role in enabling us to direct policing operations, improve our effectiveness and minimise risk.

Our focus

We will embed quality data and information at the core of how we will work. We want to introduce technology and processes to enable workforce efficiency, and use analytics to improve decision making, particularly on the front line.

To do this, we will take a structured approach to understanding the data and information we have, what we need, and how we can better utilise it to support officers and operational colleagues. We will also enable interworking with other agencies and criminal justice partners, to deliver measurable improvements to public service provision.

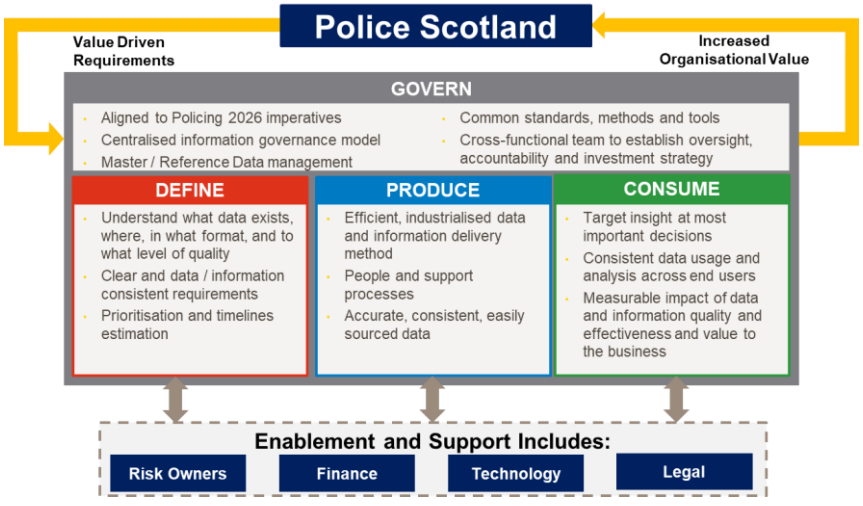


Diagram 2 Data and information overview

What will we achieve?

We aim to fully refresh our technology – introducing a new generation of modern devices and apps – and invest in the capability of the Force to support the changing needs of policing

A new technology platform

We have developed a design for a new generation of technology. This is focused on improving the way we enable, support, and respond to three key groups of people:

- Officers and staff – this is about improving the software, tools and information we give people to do their jobs. This includes more use of mobile and the ability to capture evidence digitally;
- The public – we want to move to a relationship which is more modern, enabling more self service capabilities for minor enquiries, or better using social media, for example;
- Partners – our work increasingly relies on working with partners to prevent crime and respond to it. We need to be able to share information and gather evidence, where appropriate, in real time, and to move information easily around the criminal justice system.

As a result of this focus, we have plans to implement new technology across a wide range of areas to support the changing needs of policing as illustrated below

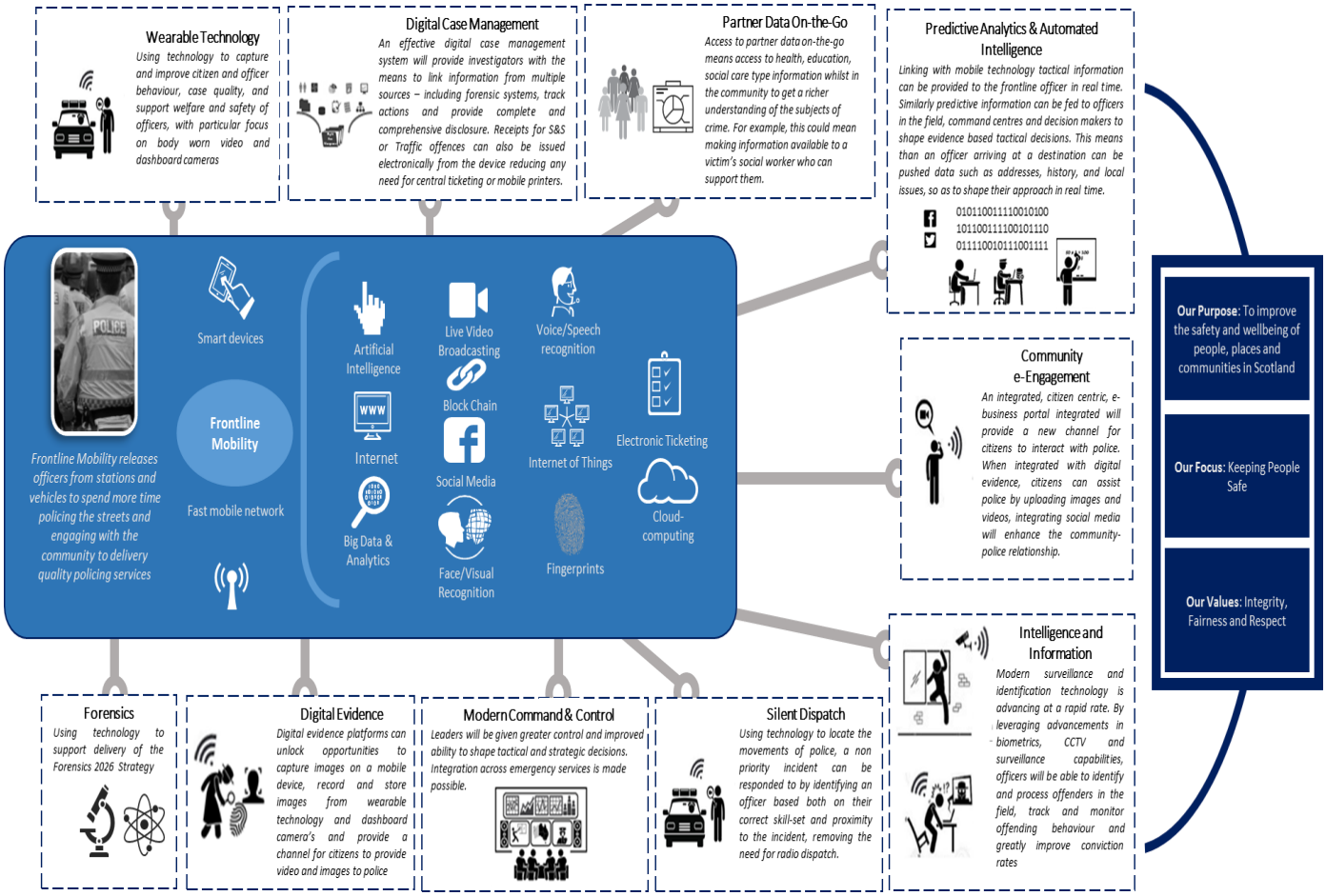


Diagram 3 – Policing Overview

New technology – transforming how we work

The implementation of new technology will be the largest single ICT Programme Police Scotland has ever delivered – it will transform how we support communities, officers, staff and partners.

Changes are expected to include:

- A new suite of core operational systems – driven by enhanced data – designed to make day-to-day work simpler, and be accessed in the field rather than at a desk
- Rollout of mobile devices – we want our officers to be in communities rather than in stations and this means giving them the tools to work there
- Improvements in core technology like networks – much of this is already underway, because we want our officers to be empowered to work across Scotland.
- New data and analytics tools – we want to be better at collecting the right information and intelligence, storing it appropriately and using it to deliver insight which helps us deliver our core operations better
- Technology to help us work more closely with partners – increasingly we want to share and receive information with local government, national government and others. We want to make this easy to help us to detect and prevent crime
- New customer contact tools – we want to modernise how people contact us.
- Please refer to Appendix ii for more information on the Solution Architecture

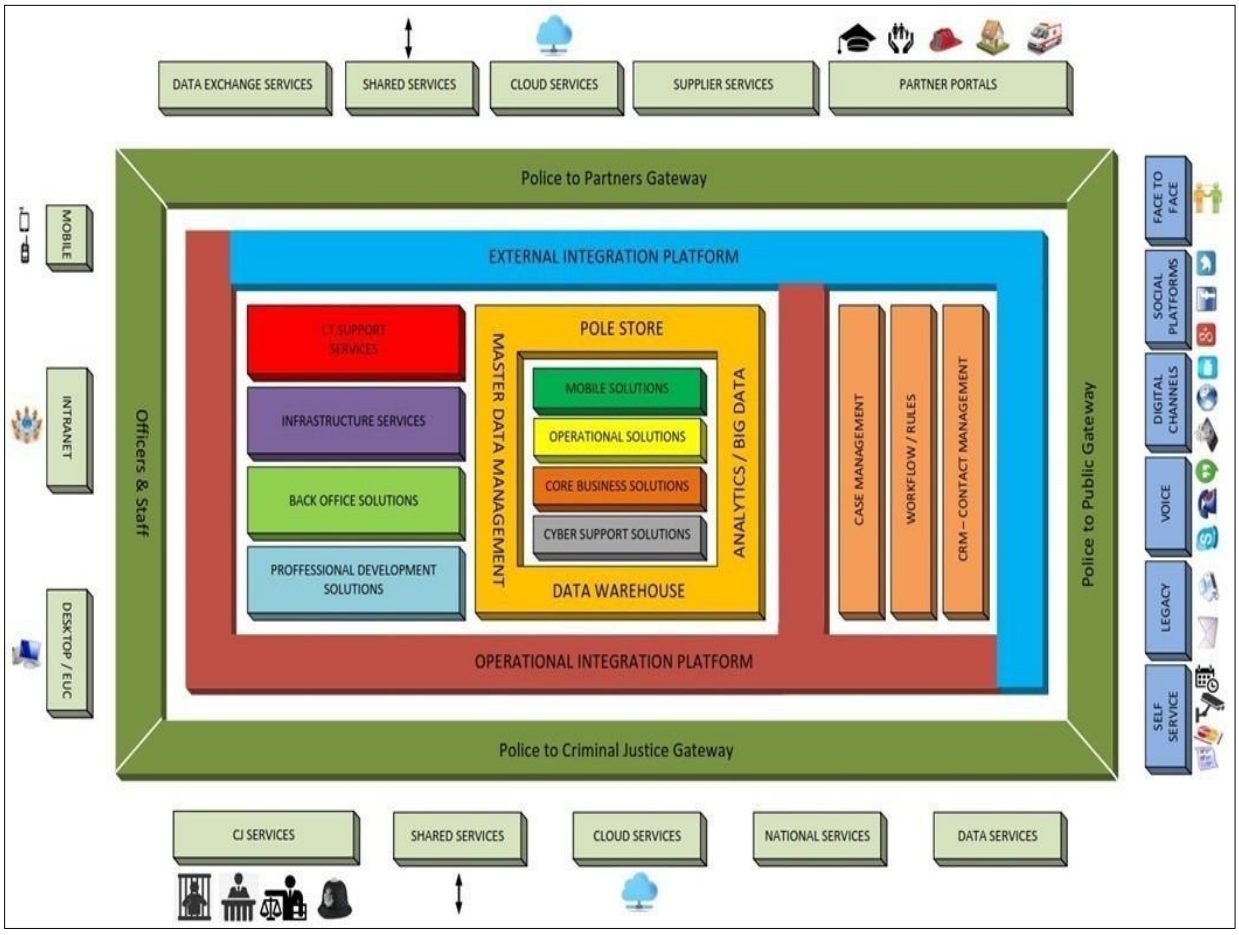


Diagram 4 – Solution Architecture

We will change the way we work

To succeed, we will need to change how we support our operations ('run the business') and how we respond to new requirements ('change the business'). This means a new way of working.

A new way of working for technology

We expect our new model of support to be built around five key areas:

1. **Cross Functional Teams.** The proposed six teams based on policing themes to deliver the Policing 2026 outcomes are:
    1. Core Policing
    2. Strategy & Innovation
    3. Partnership Working
    4. Forensics & Intelligence, Cyber & Covert
    5. Public Contact
    6. Support Services
2. **Ring Fenced Resources**. The proposed model contains Ring Fenced resources that are aligned to 'Change the Business'. Our view is that this is required as a programme of this nature is unprecedented in terms of size, complexity, capacity, timescales and burden on existing business as usual.
3. **Data & Regulatory Compliance.** A common and consistent approach to data & regulatory compliance will be embedded in each of the product teams
4. **Run the Business.** A series of change projects will be delivered within the core Technology Towers, for example data centre consolidation. These core infrastructure projects will significantly impact how aspects of service delivery will be provided and are a key enabler for wider technology related changes
5. **Service Transition.** The volume of the proposed change is significant. As new services and technologies are delivered, ICT will be required to manage the transition from the current model of support the new. This will involve management and transitioning of contracts, the decommissioning of applications and data, and integration into service.

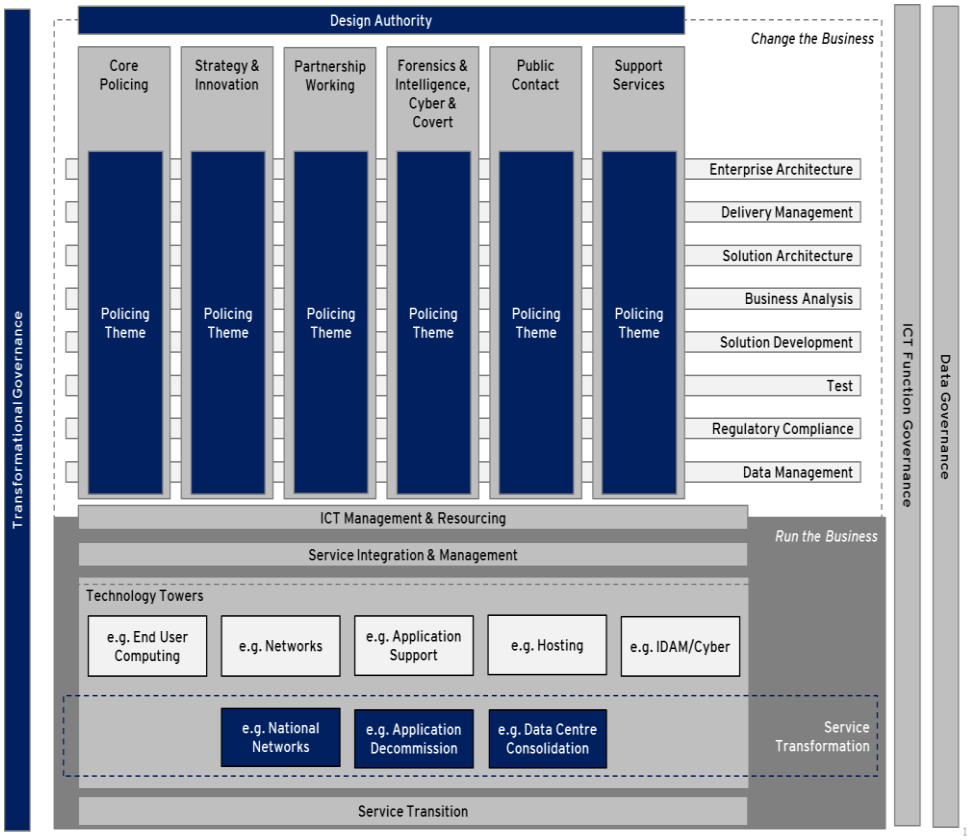


Diagram 5 – Mode of Operations

How will we get there?

We plan to deliver the changes in a phased transition, aligned to our existing 2026 plans. This is a programme which will take 4-5 years to deliver, in order to minimise disruption for our teams.

The transition plan

There is no way we can safely or affordably do everything we need to in one go. It would mean too much disruption, abstraction from core operations, and risk of failure.

The diagram shows the outline of how we propose to move forward. We want to deliver in an agile way, which makes a difference to our people at every stage. So we plan to implement in three transition 'waves':

- The first will put in place the technology which underpins the overall strategy – it will take 2-3 years to complete, but will deliver mobile devices, new operational solutions, data improvements and the underpinning networks we need to make the strategy a success.

  It will also put in place the capability needed to deliver the changes. By the end of this stage – we will have the ability to operate a more mobile, community based, and responsive workforce, and officers will have tools which allow them to work online more effectively;

- The second wave will take another 1-2 years and will focus on changing how we interact with citizens and communities – this includes new technology to enable them to contact us, report issues and upload information;

- The third wave will take a further 1 – 2 years and will change how we integrate and share with our partners. We expect to link their systems to ours for example, as part of changing how we work with them.

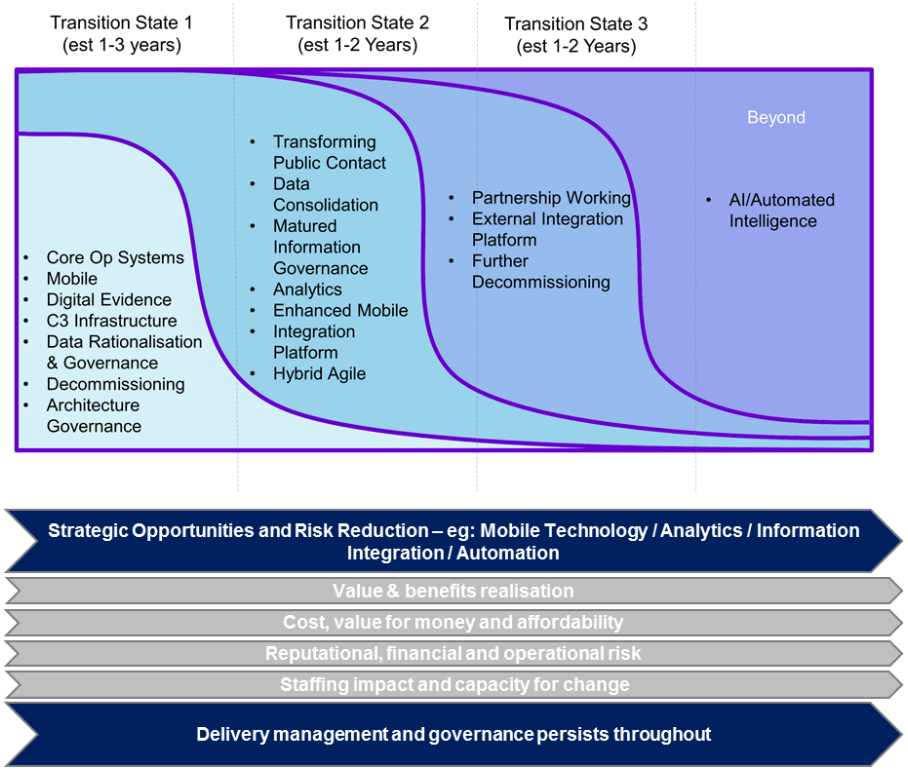


Diagram 6 – Transition Diagram

Roadmap

We believe we need to implement 45 projects to achieve our ambitions during the transition plan. The roadmap below illustrates how these will be taken forward.

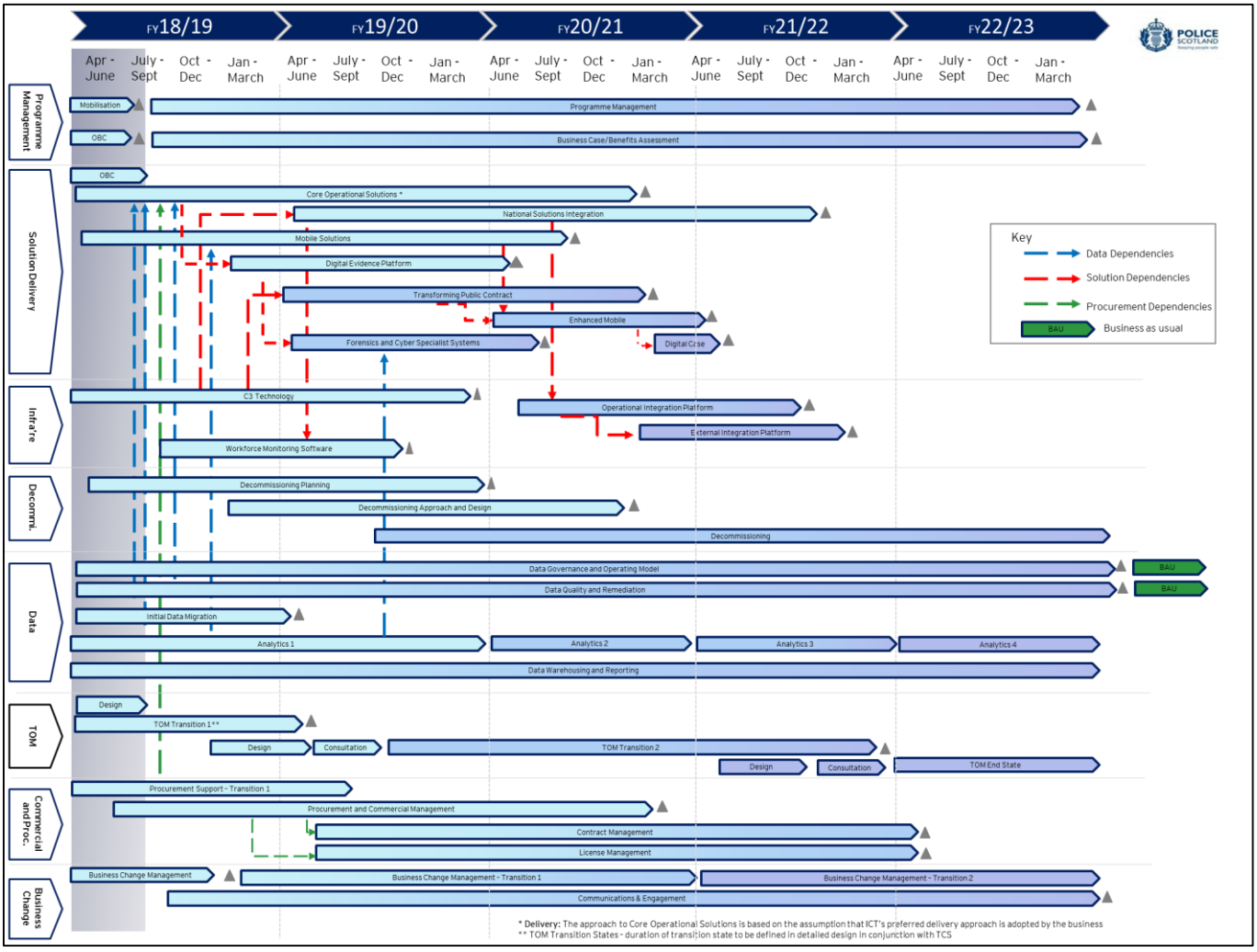


Diagram 7 – high level plan

What difference will it make?

We need to invest significantly in these proposals in order to make them work – in doing so, we are focused on delivering a series of clear operational and financial benefits.

What will be the impact?

We want to invest significantly in delivering this plan. We estimate that it will require capital investment of up to £200m over five years and are making the case for this investment to our partners.

We believe we have a strong case for this investment on the basis of four real advantages for Police Scotland: a better work experience for our colleagues, improved services for our communities, reduced risk, and efficiencies.

Improvements for officers and staff

Our staff will have easy access to quality data, information and tools to allow more proactive data driven policing approaches to be developed.

For our teams, the changes will mean they can work more efficiently: we want to stop unnecessary journeys back and forwards to police stations, increase the time spent in communities and make it easier to record evidence, make decisions, and progress cases in the field. They should get the information they need quicker and easier – and in a format which enables them to use it. However, this will mean our people need to learn to work in a very different way and follow different processes – we would invest in business change to make this work and help them to adapt.

Improved services for our communities

For our communities, it will mean a very different policing experience – cases can be progressed entirely in the field, increasing presence; we will be able to work much more closely (and quickly) with our partners to improve the places they live. Offenders might be processed and charged without being brought into custody where this is the right response. For low level offences, their experience might be entirely online. Again, this means managing expectations and the overall experience, and we would invest in business change to support this.

Reduced risk

The proposals reduce some of the risks we face from ageing systems. We all know there is an increased focus on how we protect and use people's data – under new rules, we can be fined up to 4% of our turnover if we fail to comply. New systems will help us manage people's personal information better.

Efficiencies

We expect the changes to enable savings of up to £35.5m per annum by 2022. This includes savings on technology, on police staff, and links with plans reconfigure the workforce over the next five years.

We have estimated these conservatively and believe there are significant additional efficiencies we can deliver as we implement the plans.

What will it look like?

The ‘end state’ at which we will arrive will subtly change from what we have currently defined, however our vision will ensure we achieve the outcomes of Policing 2026.

Our vision

There is no doubt that the ‘end state’ we will arrive at will subtly change over time; the needs of Policing and the communities we serve will dictate this. However, we will adapt with a complete understanding of the implications for change and we will ensure that we achieve the outcomes we have committed to within Policing 2026.

In other words, we will zealously pursue our vision for Digitally Enabled Policing, and we will do this is a pragmatic way.

This vision has been encapsulated with a single page, available in the Appendix, which is shown below.

Within our vision we have recognised that:

- Our strategic approach will deliver on the commitments of Policing 2026 and deliver a digital and technology platform that will enable us to be more responsive to change;
- We need to refresh our technology solutions and data in a coordinated way in order to deliver consistent and reliable information to our Officers and Staff;
- We must build the organisational capability to operate and evolve our solutions – we must actively avoid obsolescence;
- Our approach must deliver at pace and must deliver early results that will benefit our Officers, Staff, Public and Partners.

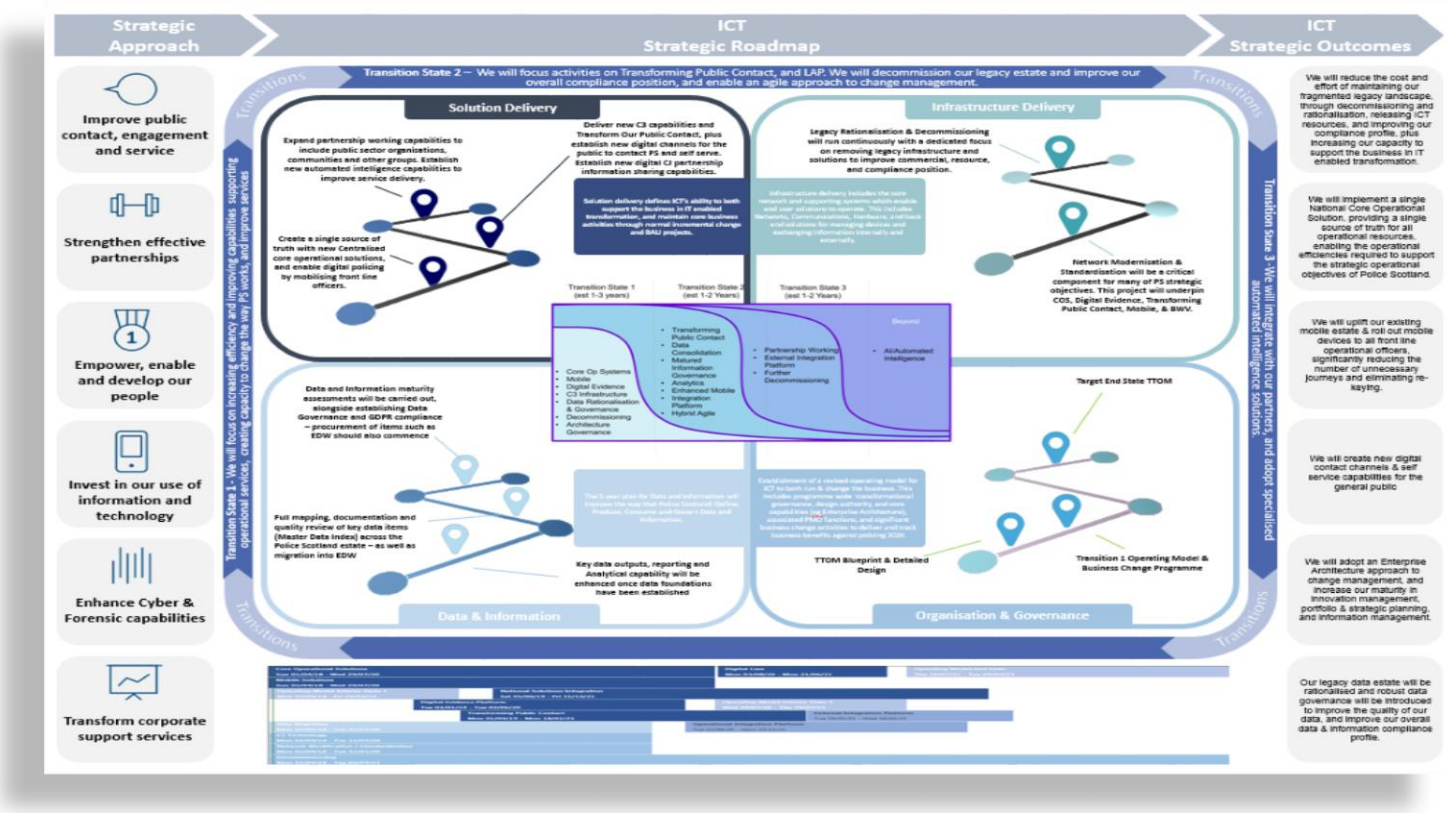
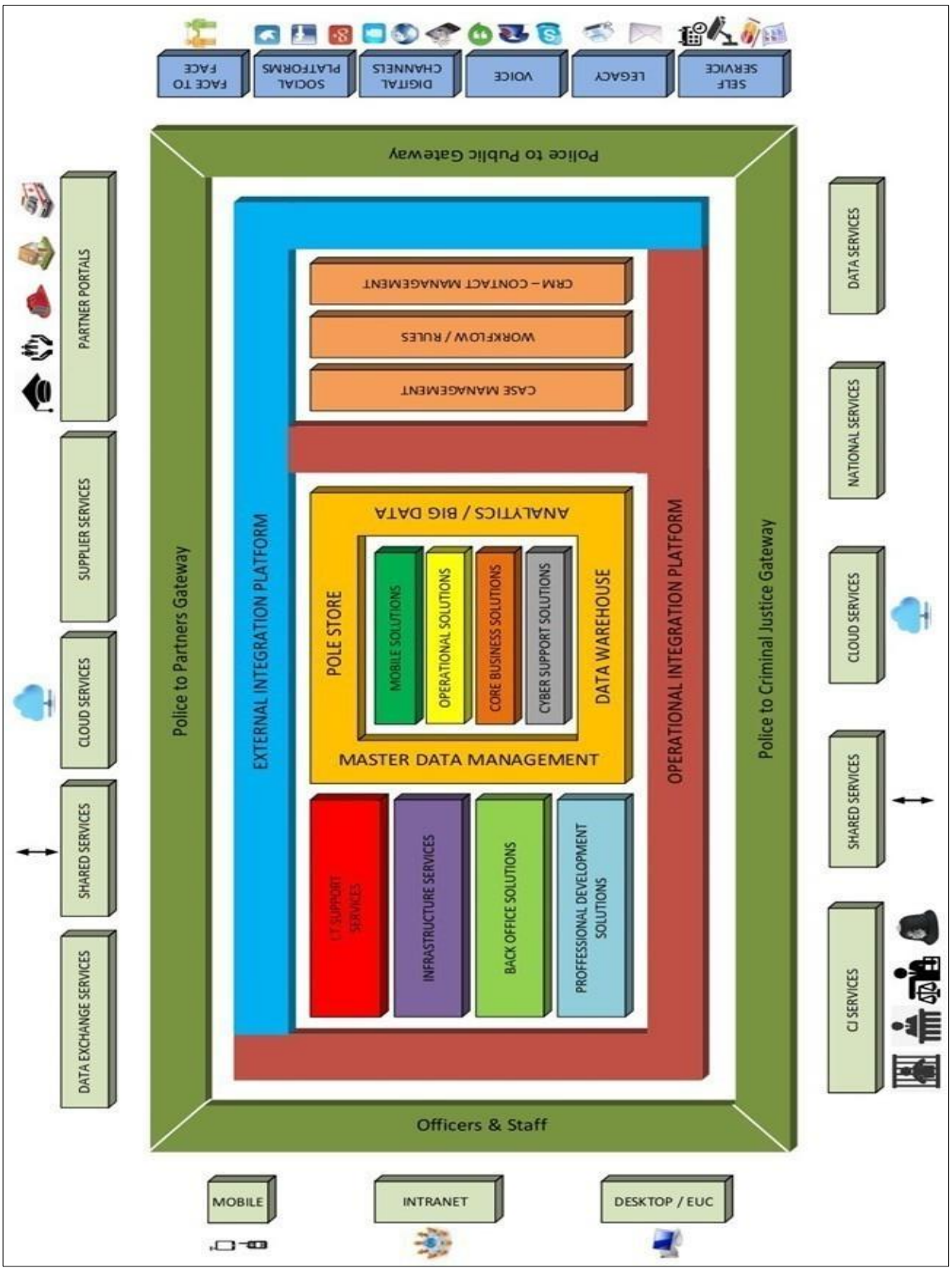


Diagram 7 – Digital, Data & ICT Vision

Appendix i

The diagram below illustrates the architecture reference model



Appendix i (continued)

The components of the architecture are described below

I.T Support Services
This covers solutions providing core help desk and user support services to the organisation.

Infrastructure Services
Solutions and services providing connectivity and networking through to server and other hardware monitoring and configuration services (e.g. Active Directory).

Back Office Solutions
These solutions typically cover HR, Finance etc., and may also include other productivity tools.

Professional Development Solutions
Training, work force planning, and other solutions designed to support staff and officers in their learning and compliance obligations.

External Integration platform
Enables integration with partner agencies, suppliers, and citizens to digitally share information and services whom are not operating on the existing secure network topology.

Operational Data & Information Services
Provides an operational single source of the truth (P.O.L.E Store), Master Data Management, Data Warehousing, and analytical and reporting capabilities.

Operational Integration Platform
Enables the operational solutions to be integrated together using SOA principles, removing duplication/re-keying, and improving overall organisational data quality and integrity.

Mobile Solutions
Includes device management solutions, productivity applications and operational applications, plus BWV and future ESN convergence.

CRM / Workflow / Shared Case Management
Solutions that enable PS to share and work together resolving issues, and engage with partners, citizens and communities in new ways.

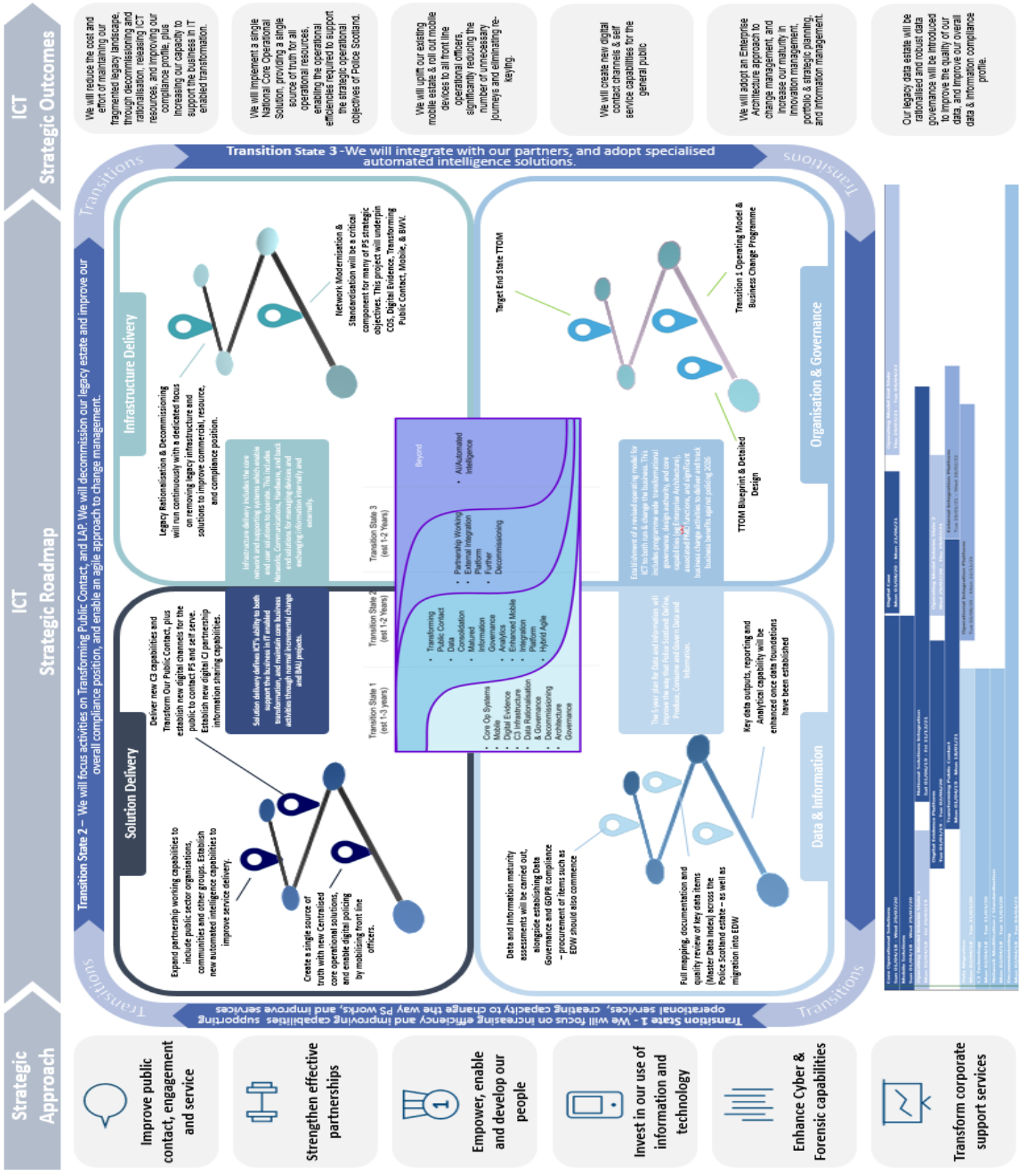
Cyber Solutions
Core services and solutions to support Cyber investigations.

Core Business Solutions
Includes typical productivity solutions (egg Office, Email and Messaging).

Operational Solutions
Command & Control, Crime, Intelligence, Case, Custody, National Solutions, and more.

Appendix ii

An outline of the vision is articulated and referenced in ‘What will it look like?’.



DIGITAL, DATA AND ICT – THE TECHNOLOGY TARGET OPERATING MODEL

STRATEGIC OUTLINE BUSINESS CASE

Contents

0. Document Control

Protective Marking	Official
Publication Scheme	N
Title	ICT, Digital and Data Strategy Strategic Outline Business Case
Version	3 01
Purpose	Outlines the options and estimated costs associated with delivery of the Technology Target Operating Model (TToM) Blueprint and seeks investment to deliver this.
Date Version Issued	23/05/2018

0.1. Document edit history

Version	Date	Additions / Modifications
0.1 – 1.03	25/1/18	Drafts for review
2 00	17/04/18	Final – Internal Release
3 01	23/05/18	Final – External Release

1. Introduction

1.1. Background

This Strategic Outline Business Case (SOBC) has been completed as part of a 10 week project to develop the future Digital, Data and Technology Target Operating Model ("TToM"). The outputs from this work comprise a proposed architecture, future model and strategy (which outlines the overall approach and how technology will support Police Scotland's objectives), and this business case. Further work on the business case will be required to support decision making, and required activities are set out in a series of 100 day plans.

The SOBC has been prepared based on the proposals set out in the above documents and is intended to provide a set of costed viable options to support Police Scotland to determine the most appropriate future roadmap for ICT. The key drivers of cost across these options are:

- Architecture;
- Organisational Shape;
- Commercial contracts; and,
- Programme implementation.

As such, the SOBC should be read in conjunction with the TToM Strategy and Architecture, which sets out how ICT infrastructure, applications, data, and operational matters need to change in order to support the Force-wide outcomes anticipated in Policing 2026. While the key messages from this work are included in this document, the detail is not repeated.

1.2. About the OBC

The SOBC was developed in line with HM Treasury Green Book guidance and focuses on "what" needs to be delivered – setting out the proposed changes, estimated costs and indicative benefits, as well as commercial and delivery implications. The SOBC follows the Green Book structure for such cases, as summarised in the diagram below:

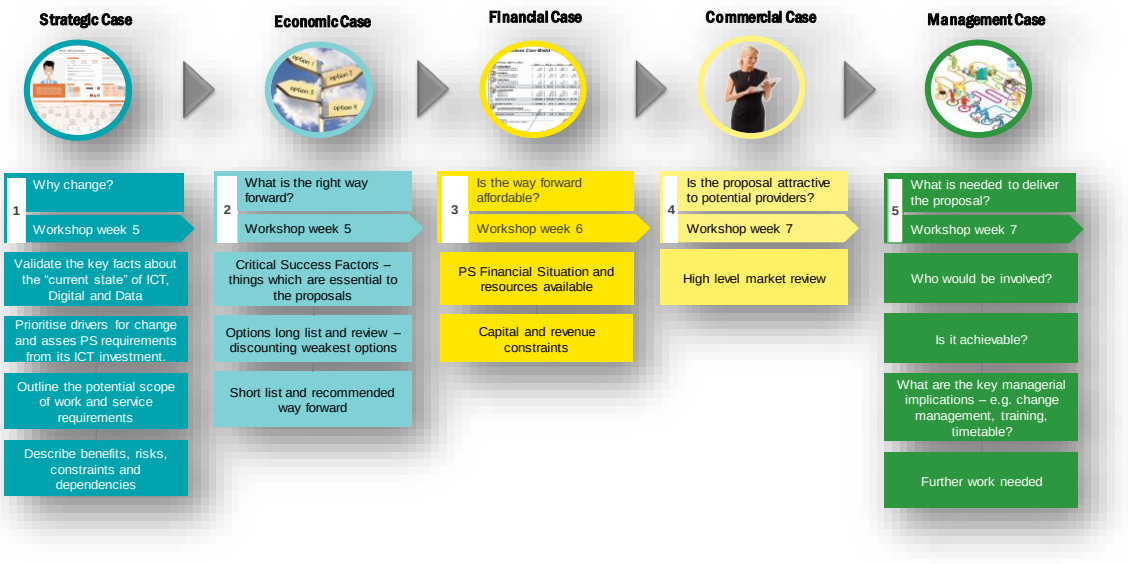


Figure (1): HM Treasury Green Book Guidance for SOBC

The Green Book process is designed to get to a complete business case in a series of defined stages, with contents developing at each stage and confidence in the overall case for change increasing with each completed business case. The diagram below summarises the path to completion for each section of the business case:

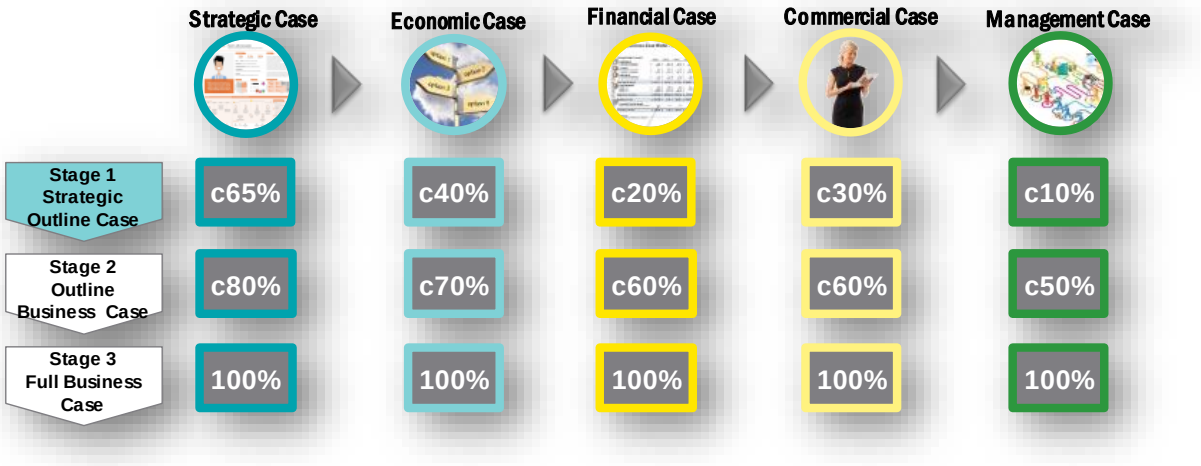


Figure (2): HM Treasury Green Book Guidance for OBC

This is intended to reduce optimism bias and maintain a focus on completing the right decision making at each stage. The next stage (Outline Business Case) will be delivered over a three month period.

1.3. Approach to developing the SOBC

The SOBC has been developed according to the process set out below:

Weeks 1 – 4: Baseline Review and Scope Development

During this stage the baseline for ICT was established in terms of costs, FTEs, applications and infrastructure. This was used to structure a draft of the Strategic Case and to develop a series of high level options for the Economic Case.

Weeks 5 – 7: SOBC Iteration One

During these weeks, the emerging contents of the Strategic Case and Economic Case were developed further and shared with key stakeholders in a series of meetings and workshops. Initial financial estimates for key technology components were developed and initial benefits profiles considered. Work on the commercial case options and management case commenced and iteration one of the SOBC was released to key stakeholders for review at Steering Group.

Weeks 8 - 10: SOBC Iteration Two

Based on the work carried out to prioritise, plan, and develop the architecture, target operating model, and other key aspects of the Blueprint, and to reflect feedback from stakeholders, Iteration Two of the SOBC was developed and further tested with stakeholders. This included the completion of financial estimates.

2. Strategic Case

2.1. Strategic Case Overview

This section defines the organisational context for the change – including the baseline position for ICT, drivers for change (Policing 2026 and other strategies), an overview of proposed changes and a high level view of benefits, risks, constraints and dependencies. It considers digital, data and technology components and the key points in this section are:

- Current IT infrastructure, applications, and ways of working are unlikely to support Police Scotland to deliver on Policing 2026;
- Policing 2026 requires the deployment of significantly enhanced technology and capabilities to deliver the long term ambitions of Police Scotland;
- To deliver on its financial commitment to a balanced budget by 2020/2021, Police Scotland's existing technology, ways of working, and ICT support must all be fundamentally changed (e.g. from a technology perspective, the legacy force areas are still largely separate)
- Other UK Forces have invested heavily in technology to support policing and as a result there is a risk that Police Scotland could fall behind in delivery of policing;
- As a result, the TToM Strategy proposes a range of projects to consolidate, innovate, and evolve the delivery of ICT, digital and data;
- These projects could deliver a range of financial and non-financial benefits for officers, partners and the organisation; but
- These are subject to a range of strategic constraints and risks which need to be addressed in planning for the future.

2.2. Strategic Objectives – why Policing 2026 requires a new ICT Strategy

Policing 2026 is underpinned by technology which enables Police Scotland to be more data led, efficient and effective in its ways of working. The Strategy sets out six clear outcomes which the organisation is seeking to achieve:

Figure (3): Policing 2026 – Strategic Objectives

To support this, Policing 2026 identifies a number of potential investments in information and technology:

- We will develop the national technology infrastructure and identify partnership opportunities for shared investment to improve services and enable our people to operate more effectively.
- We will introduce technology to enable workforce efficiency and use analytics, better data quality and wider sources to improve decision making, particularly on the front line.
- We will invest in connectivity and mobility for real time decisions and to enable this, we will shift the culture to create a technically enabled workforce.

In order to support the delivery of Policing 2026, the TToM Strategy focuses on four key objectives for digital, data and technology:

1. Support Policing 2026 by putting in place the technology needed to change how we police our communities;

2. Replace an ageing and complex legacy ICT estate to support the Force to operate as a single, integrated organisation;

3. Create the ICT capacity and capabilities which allow us to support and respond to changing needs over the next 8 years; and

4. Help achieve a balanced budget for Police Scotland by improving efficiency and reduce technology costs.

The TToM Strategy and roadmap are intended to outline the projects, changes and transition stages by which ICT, digital and data will enable this change. This is one of a number of strategy documents which are evolving to support Policing 2026, including the People Strategy and Customer Strategy.

Other UK Forces have invested significantly in their ICT – particularly in relation to mobile and core operational systems

All UK Forces are investing in technology – in particular, to drive consolidation of core systems, use of mobile policing, improvements in enquiry and case handling and advanced use of data and analytics. The aim of these Forces is to save money through more efficient and productive policing approaches, accelerate investigations and support partnership working.

Investments are typically high – as illustrated below, based on publically available information and the experience of Professional Services Advisors, for four UK Forces:

UK Force	Spend on IT transformation	This would equate to a PS cost of…[1]
Metropolitan Police	£200m over four years[2]	£155m
Avon and Somerset	£20-50m over four years[3]	£85m - £130m
West Midlands	£77m over six years[4]	£125m
Greater Manchester	£66m over four years[5]	£106m

Table (1): Investment in ICT Comparison

In comparison, Police Scotland has not invested to a similar scale and is still largely operating on digital, data and technology platforms which pre-date the creation of the force.

2.3. Current State – why existing digital, data and ICT are unlikely to successfully deliver Policing 2026

A more detailed analysis of the current state technology, ICT organisation and capabilities are set out in the ICT Blueprint document. This Business Case summarises the key elements of this analysis.

[1] Source: This has been calculated assuming 50% of the investment is fixed and 50% variable, with the variable element then updated to reflect the relative size of the Force compared to Police Scotland
[2] Based on public reports on expenditure in Computer Weekly
[3] Based on published report on ICT Strategy for Avon and Somerset PCC
[4] Based on published report in ICT Strategy for West Mids PCC
[5] Based on Professional Services Advisor's project knowledge

Background – ICT, data and digital baseline

The annual budget of the ICT service is £52.3m per annum as summarised in Appendix 1. Data supplied from finance and HR indicates that the ICT function has an approved establishment of 414.6 FTE. However, the current permanent establishment of 307.5 FTE, with an additional 37 FTEs applied on a day rate basis, and the remaining posts are vacant. There have been challenges in recruiting to some roles which are vacant as a result of competitive pressure and demand for technical skill sets within the Scottish economy.

Interviews with stakeholders indicate that around 65% of effort in the ICT function is committed to business as usual activity:

- Approximately £17.2m relates to expenditure of maintenance, licenses, data and other direct expenditure on ICT;
- Approximately £14.3m relates to supplies and services, particularly telecoms (£9.1m) and Airwave (£4.9m); and
- Around £4.4m on other payments to Third Parties.

The remaining budget relates to administration and premises and is not financially material.

The capital investment in ICT in 2017/18 is in the region of £20.9m (although at the time of writing there is a forecast underspend of around £1.6m against this figure). This allocation is mainly allocated to change and updates to 'business as usual' technology and infrastructure, with only a minority allocated to transformational projects. The capital allocation for ICT in 2018/19 has been agreed as £23.1m (please see the financial case for further information).[6]

Since Police Scotland was created in 2013, the Force has been successful in implementing some 30 national IT systems, significantly reducing the number of applications used across Police Scotland, and introducing important new national IT infrastructure. This success has occurred in the context of an ICT function that has historically not been adequately resourced to deliver its programme of work, and whose ability to deliver was additionally impacted by the failure of the i6 programme.[7]

However, there are a number of areas where existing application, infrastructure and ways of working are not sufficient to deliver the objectives of Policing 2026.

Despite progress in creating national systems, data and applications remain fragmented – putting achievement of Policing 2026 at risk

In developing the business case, this work has identified a number of key findings which act as barriers to delivering Policing 2026 and has aimed to create a roadmap and plan which addresses these recommendations:

Findings	Evidence	Impact	Recommendations
Absence of prioritisation. There is limited corporate prioritisation of technology and other projects, with no mechanism for determining or refreshing priorities and ensuring resources are	• High numbers of "business as usual" projects competing with strategic change initiatives for resources. • Business cases assume full benefits	• Reduces the chance that change can be delivered successfully or that PS can react to new	• Establish portfolio management for transformation (see management case)

[6] Police Scotland monthly monitoring report, January 2018
[7] Source: Professional Service Advisor Health Check Review

Findings	Evidence	Impact	Recommendations
deployed on the right areas. This places pressure on ICT to respond at short notice to changes and means projects compete for scarce resource.	with limited reference to dependency initiatives • Multiple and fragmented governance arrangements for projects	requirements effectively.	
Enterprise architecture capability is not in place The review found significant thinking on specific solutions had occurred, however there was limited buy in/ understanding of impact from the broader organisation, in order to enable required changes. Additionally, there is a high demand for enterprise architecture skills elsewhere in the Scottish economy, and the ICT function has identified salary levels as too low to attract sufficiently qualified candidates.	• Enterprise Architecture is a best practice component of a modern organisation and other forces (e.g. Greater Manchester Police, West Yorkshire Police) are moving towards this capability. • Lack of enterprise architecture roles or documents in the operating model.	• Lack of broad buy in to a common agenda for IT and a strategy for delivering this. As a result, this will make responding to and delivering change less effective, longer, and more costly.	• Establish an Enterprise Architecture capability (captured in a delivery project)
Lack of business understanding of IT 'current state' IT colleagues deal with challenges in data, application and infrastructure architecture on a day-to-day basis, which take significant resources and associated effort is not seen by the wider organisation.	• High proportion of ICT resource is engaged in running the current operation. • Challenges in resourcing change programmes to a timeline which supports business objectives. • Programmes moved forward in a way which is unlikely to deliver benefits without resolving underpinning issues.	• Programmes are likely to be delivered in a way which does not deliver benefits, leads to partial solutions being implemented and requires increased training abstraction.	• Create a single programme and communicate how it supports change in police language (see management case) • Create a dedicated delivery team for implementation to support delivery of change (see economic case).
Need to manage impact of technology change on officers Programmes are delivered in parallel with limited consideration of change impact/approach for the whole workforce.	• Multiple projects impacting common stakeholders (e.g. mobile, COPS) and no integrated change plan. • No single portfolio of change.	• Increased cost of abstraction and training as a result of poor sequencing and lower levels of adoption of new solutions.	• Create a clear Transition Plan to support business change activities (see management case).
ICT has challenges in recruiting ICT have struggled to recruit appropriately skilled resources	• High numbers of vacancies and significant dependency on contractors within the service.	• Ongoing challenges in delivery of projects and ICT not delivering at full capacity.	• Clear strategy and transition plan to be created for delivery of a sustainable operating model for ICT.
Data quality and availability presents risks and a barrier to change Data quality and availability is variable and is a drag on	• No single version of the truth. Over 25 million nominals across system for a population of c5 million. • No clear definitions of "good enough" data.	• Significant compliance challenges exist with regard to General Data Protection Regulations	• This requires urgent intervention as it is a live issue for the Force. • A series of interventions on data are required

Findings	Evidence	Impact	Recommendations
delivering change in a way which works for officers.	• No single POLE store. • No consolidated consumption/production picture for data products • Performance (analytics) culture is inconsistent • Lack of Information Asset Owners	(GDPR) and financial impact from this. • Inability to report on and plan activity. Restricts the ability of PS to look at innovation, successfully implement new systems, and develop new approaches to policing.	and projects have been created to deliver this (see below and management case)
Requirement for an aligned operating model across Police Scotland PS has not integrated its working practices across legacy Force areas – to maximise the benefits from ICT investment, a clear business strategy is required.	• Multiple programmes developing in parallel on a 'bottom up' basis but no single overarching set of principles to underpin Policing 2026. • Multiple systems in use across the legacy divisions and areas.	• Failure to maximise the impact of investment on the front line, and missed opportunities to modernise.	• Delivery of the IT strategy will be dependent on the future operating model for policing (see below).

Table (2): Business Case – Identified Barriers and Recommendations for Success

Illustrating the current state – Core Policing applications

For example, across the eight legacy areas (A – V, along the top of the diagram) and key crime and property processes (down the left), Police Scotland has 25 core policing applications and 11 manual processes currently in operation (see diagram). The impact of this is that policing processes are significantly different in some areas – some police officers have mobile devices and are able to take witness statements remotely, which are then automatically synchronised to core systems; whereas others take these on paper and type them.

Figure (4): Illustrating the current state – Core Policing applications

Existing technology landscape makes it challenging to deploy the more advanced technologies required by Policing 2026

Policing 2026 also sets out a number of potential use cases for new technology by 2026, including online, self-service crime recording, real-time data sharing with agencies, digital evidence and criminal justice samples and use of data analytics to identify crime hot spots to front line officers.[8] These are dependent on consolidated processes, systems and data which are not available in the current architecture and operating model.

[8] Source: Policing 2026

Police Scotland have an existing risk in their strategic risk register in relation to this, which this SOBC is an attempt to mitigate:

Risk Title: ICT, Digital and Data[9] **Risk Description:** If we do not invest in and commit to a clear vision, strategy and support for our ICT, Digital and Data capabilities, there is a risk that delivery of the 2026 Strategy is not enabled by technology and our capabilities are not stabilised and improved, resulting in an inability to maximise opportunities and achieve the benefits. **Impact:** Inability to deliver core objectives of Policing 2026 and realise the benefits. Efficiency savings aren't realised. Ageing legacy systems begin to pose a risk to business as usual sustainability.	**Current Controls in place:** Initial investment has been made in sourcing external support from Professional Service Advisors to articulate a clear vision, strategy and operating model to support the delivery of the 2026 strategy.	(3) Further Controls Required (include action owner and date for completion): Digital. Data & ICT Programme to deliver TTOM to include all digital, data, ICT and enterprise architectural requirements to deliver Policing 2026 - TTOM and business case due March 2018 SOBC work will support and enhance the 2026 initiatives already in place including; - ADEL - National domain providing a single, modern and secure working environment accessible from any location NatNet - A robust and capable network infrastructure to support modern technology and fast technical operations - Digitally Enabled Policing - A mobile platform to enhance officers access to data and efficient working practices - Data Governance & Insight Project - National data standards enabling the consolidation and analysis of data from a variety of sources; A master data index where the organisation will hold a single version of key data (people and locations) linked to relevant data across the organisation.

Figure (5): Police Scotland – ICT Risk Register

[9] Extract from Police Scotland risk register on need for investment in ICT

ICT improvements are fundamental to delivering a balanced budget by 2020/21 – without change, this is unlikely to happen.

The 10 year forecast sets out a deficit financial position for each of the years 2017/18 to 2019/20 (see table). Police Scotland has committed nationally to delivering a balanced budget from 2020/21. To do so, it anticipates delivery of a series of ICT enablers:

	2017/18 £m	2018/19 £m	2019/20 £m
Opening Deficit	63.0	47.2	35.6
Expenditure			
Police officer costs	771.2	774.5	768.7
Police staff costs	174.9	177.6	185.2
Non pay costs	159.3	159.7	158.0
Income	(45.6)	(44.0)	(42.0)
Gross Expenditure	1,059.8	1,067.8	1,069.9
Forensics	27.8	28.6	29.4
SPA Corporate	4.0	4.1	4.2
Total	1,091.6	1,100.5	1,103.5
Reform VAT Allocation	(22.0)	(22.1)	(21.9)
Net Expenditure	1,069.6	1,078.4	1,081.6
Funding			
Core revenue grant	1,022.4	1,042.8	1,065.7
Other	0.0	0.0	0.0
Total Funding	1,022.4	1,042.8	1,065.7
Budget (Surplus)/Deficit	47.2	35.6	15.9*
Deficit Reduction	15.8	11.6	19.7
Cumulative Deficit Reduction	15.8	27.4	47.1

*Efficiencies achieved in 2019/20 will result in a balanced budget from 1 April 2020.

Figure (6): Economic Case

- Officer mobility;
- Consolidation of core operational systems;
- Increased automation;
- Reductions in ICT support costs.

These changes are essential to delivering the improvements in productive time and cashable benefits required to deliver a balanced budget in the medium term.

2.4. Future model – how digital, data and technology can be used to support the transformation of policing

The Technology Target Operating Model outlines our proposed strategy for digital, data and technology

In order to deliver the outcomes and objectives of Policing 2026, this project has developed a technology target operating model – this sets out the strategy, proposed technology architecture to support Police Scotland, the IT operating model and 100 day plans for implementation. In summary, it proposes:

- A new TToM Blueprint which is intended to enable Police Scotland to deploy its officers differently, supported by new mobile technology and with access to the systems and data they need to work in communities. The architecture will also support information sharing and collaboration with our partners in the public sector by better allowing us to share the right information at the right time in the right way. Finally, it will allow us to better store, manage and report on the information we hold in support of what we do.

- A new target operating model for the technology function will bring us closer in line with other organisations, based on good practice. This is pictured below and aligns to the ongoing Corporate Services review. It is important to note that this model needs to be accepted across the Force, as it has implications for how other areas of Police Scotland deliver change.

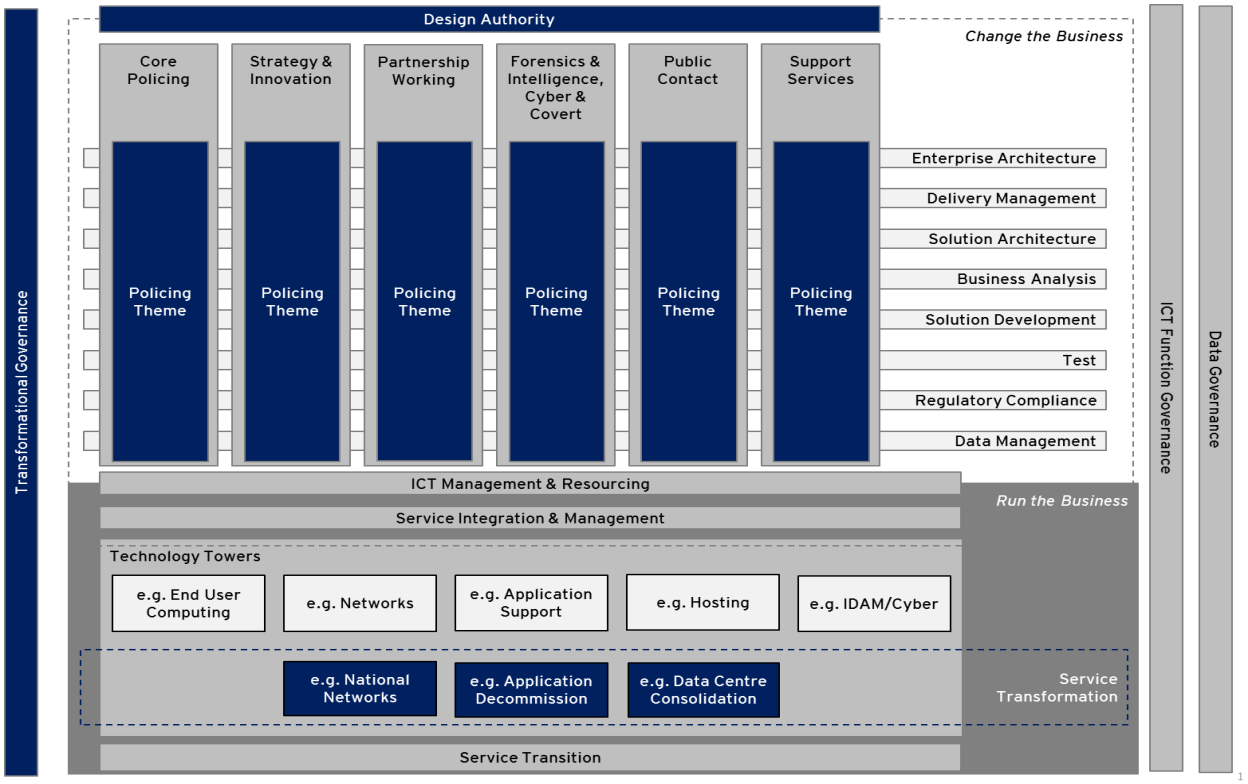


Figure (7): TTOM

A number of the key features of the TToM are listed below. These require further validation beyond this business case and to be developed in conjunction with Transforming Corporate Services:

1. **Cross Functional Teams – Aligned to Policing Themes**. The proposed 6 teams to deliver the Policing 2026 outcomes are:
    1. Core Policing;
    2. Strategy & Innovation;
    3. Partnership Working;
    4. Forensics & Intelligence, Cyber & Covert;
    5. Public Contact; and
    6. Support Services.
2. **Ring Fenced Resources.** The proposed model contains Ring Fenced resources that are aligned to 'Change the Business'. This is required as a programme of this nature is unprecedented in terms of size, complexity, capacity, timescales and burden on existing business as usual.
3. **Data & Regulatory Compliance**. A common and consistent approach to data & regulatory compliance will be embedded in each of the Policing Theme teams.

1. **Run the Business**. A series of change projects will be delivered within the core Technology Towers, for example data centre consolidation. These core infrastructure projects will significantly impact how aspects of service delivery will be provided and are a key enabler for wider technology related changes.

2. **Service Transition.** The volume of the proposed change is significant. As new services and technologies are delivered, ICT will be required to manage the transition from the current model in support of the new. This will involve management and transitioning of contracts, the decommissioning of applications, and data and integration into service.

Delivering the strategy is underpinned by the delivery of around 50 projects over a five year period

These projects are grouped into 8 programmes of work and together support us to implement the technology, business and financial changes we need to succeed:

Programme of Work	Key business outcomes enabled	Project
Solution Delivery	• Enable officers to access and input into key systems in the field, supporting a move to 80% of time spent working remote from police offices. • Enabling the Force to make greater use of digital evidence platforms to capture, record and store images and allow citizens to provide evidence. • Implement middleware in order to deliver the integration of (and data exchange between) legacy and new systems. • Rationalise applications for the front line to standardise ways of working nationally and enable efficiencies in operation and productivity improvements for officers.	SD1 Core Operational Solutions
		SD2 National Systems Integration
		SD3 Mobile Solutions
		SD4 Digital Evidence Platform
		SD5 Core Business Solutions
		SD6 Back Office Solutions
		SD7 Maintaining Core Business Activity
		SD8 Transforming Public Contact
		SD9 Enhanced Mobile
		SD11 Forensics Specialist Systems
		SD12 Digital Citizen and Digital Partner
		SD13 Cyber Specialist Solutions
		SD14 Cyber Solutions - Public Protection & Analytics (existing)
		SD15 Federated Search
Infrastructure	• E-engagement and online journeys for citizens and partners, which provide new channels for people to contact, access and provide information to Police Scotland. • Use automation to deliver processes and services more efficiently and enhance operational delivery. • Creation of a single technology infrastructure for Police Scotland to allow interoperability across the country.	Inf1 C3 Technology
		Inf2 Network Modification / Standardisation
		Inf3 Operational Integration Platform
		Inf4 External Integration Platform
		Inf5 Maintaining Core Infrastructure
		Inf6 Intelligent Automation RPA
		Inf7 Remote Access and Secure Collaboration Service

	• Standardising equipment used across legacy Force areas onto common platforms	
Decommissioning	• Reduce legacy estate to deliver efficiencies	DCOM1 Core Systems Decommissioning
		DCOM2 Data Centre Consolidation
		DCOM3 Data Support Solutions
Information & Data	• Improve the quality, availability, organisation, and reporting on data held by the Force to improve the ability to support officers and operational colleagues. Support interworking with partner agencies and criminal justice partners, and deliver improved services to citizens. • Deliver compliance with regulatory standards for data.	Data1 Data and Information Maturity Assessment
		Data2 GDPR Compliance and Remediation
		Data3 Data Governance Operating Model
		Data4 Data Discovery
		Data5 Data Quality Remediation and Management
		Data6 Data Migration
		Data7 Technology Selection and Procurement Support
		Data8 Data Warehousing and Reporting
		Data9 Analytics
Operating Model & Organisation	• Migrate ICT to a new target operating model to better support redesigned and future technologies.	TOM1 Operating Model Design
		TOM2 Operating Model Interim State 1
		TOM3 Operating Model Interim State 2
		TOM4 Operating Model End State
Commercial & Procurement	• Put in place efficient contracting and commercial structures.	Comm1 Procurement & Commercial Management
		Comm2 Contract Management
Business Change Management	• Enable officers to work effectively and make the most of new tools.	BC1 Business Change Management
		BC2 Business Change Implementation
Programme Control & Governance	• Supports delivery of programme benefits and timescales.	PM1 Programme Management
		PM2 Business Case Management

Table (3): Programmes of work

While a number of these projects are currently in train, they are captured here to provide a holistic view of the requirements on ICT and Force budgets over the coming year. This SOBC excludes investment in "business as usual" changes which are required to sustain current operations. This is estimated as £6.2m for FY2018/19 (see economic case).

It will not be practical to deliver all the changes at once – so it is proposed that they are implemented across three transitional stages

The diagram below summarises the proposed transitional stages – the objective is to put the foundations in place, deliver on regulatory compliance and support mobile delivery before moving onto more complex changes. However, some activity for stages 2 and 3 will need to start in the early years to allow for adequate planning:

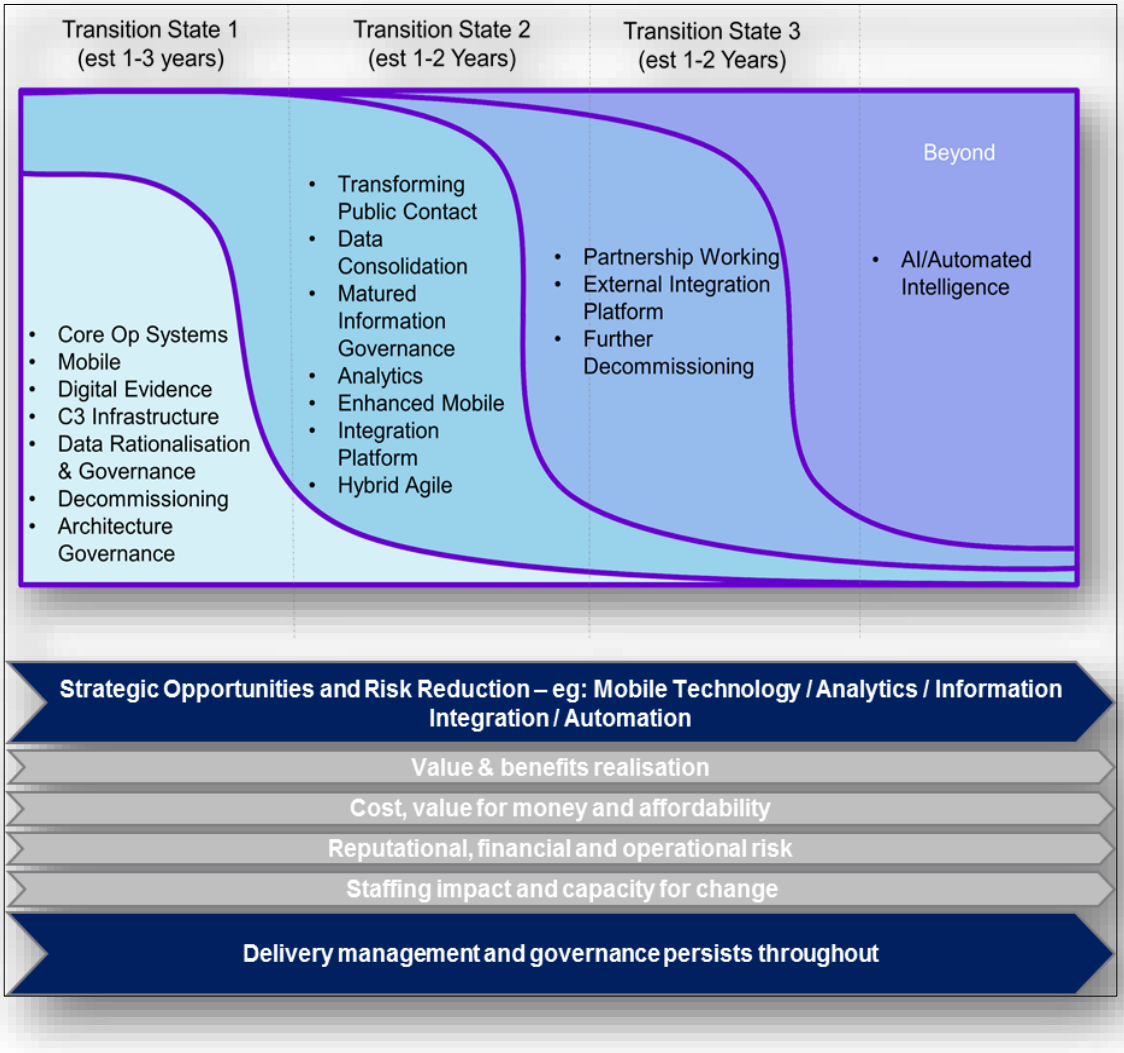


Figure (8): Transition States

The changes have the potential to deliver a range of benefits which will support Policing 2026

The SOBC is based on the aim to provide the **technology capabilities** and **ICT support** Police Scotland needs to **improve the safety and wellbeing of people, places and communities.** We want to help deliver the strategic objectives in Policing 2026 and make the most of the money we spend on technology.

This has been translated into expected benefits of the Strategy across three types of benefit:

- Benefits linked directly to the financial situation of Police Scotland. These are cashable benefits;

- Benefits which enable productive time to be released, which is typically related to front line officers (efficiency savings, which may be non-cashable); and
- Benefits that cannot be linked directly to financial benefits but considered worthwhile for operational reasons (non-financial savings).

The economic case sets out the cashable and productive time benefits but recommends that work is carried out to determine the extent to which productive time can be released to address budget shortfalls. The full list of benefits is set out in Appendix 8.2 – these are summarised below:

Linking the benefits to be derived to the strategic outcomes in 2026 provides a clear line of sight...

	Improving public contact, engagement and service	Strengthen effective partnerships	Empower, enable and develop our people	Invest in our use of information and technology	Enhance cyber and forensic capabilities	Transform corporate support services
Regulatory and Legal Compliance	• Manage risk of non-compliance with regulatory and statutory requirements e.g. FOI requests, Information Commission Audits, public procurement regulations	• Reduced risk of non-compliance with legal requirements surrounding evidence	• Reduced risk of litigation			
Drive Efficiencies	• Increased Police Officer availability to focus on preventing, solving and reducing crime • Increased engagement between the police and the public to help identify, understand and tackle emerging threats	• Greater options for internal and external collaboration	• Improved quality of data to inform decisions and performance measurement • Improve call handling efficiency • Reduced Supervision • Better informed resource to support management of incidents and crime investigations	• Increased Police Officer mobility		• Reduction in costs associated with the property management process • Rationalisation of the Force estate • Reduced staffing costs
Improved Service Delivery	• Improved and correct deployment of resources to incidents (e.g. mental health incidents or welfare checks where Social Workers rather than Police Officers are more appropriate) • Protected and improved reputation and perception by the public • Enhanced customer experience: External & Internal		• Improved Police Officer and Partner safety	• Reduced technology licensing and support costs for legacy applications • Greater quality of intelligence accessed and presented more quickly • Greater flexibility and dynamism to meet business requirements	• Improved engagement with the public to solve and prevent cyber crime.	• Reduced infrastructure costs • Improved usability • Reduced risk of system failure

Figure (9): Benefits aligned to 2026 Strategic Objectives

The table below shows how benefits are delivered during transition, with the shading in the balls reflecting the level of benefit delivered in each wave:

Benefit	Transition 1	Transition 2	Transition 3
Reduced risk of non-compliance with legal requirements surrounding evidence			
Manage risk of non-compliance with regulatory and statutory requirements			
Increased Police Officer availability to focus on preventing, solving, and reducing crime			
Greater flexibility and dynamism to meet business requirements			
Reduced supervision			
Greater options for internal and external collaboration			
Reduced risk of system failure			
Rationalisation of the Force Estate			
Greater quality of intelligence accessed and presented more quickly			
Improved quality of data to inform decisions and performance measurement			
Improved usability			
Protected and improved reputation and perception by the public			
Enhanced customer experience: external and internal			
Reduced risk of litigation			
Increased Police Officer mobility			
Improved call handling efficiency			
Better informed resource to support management of incidents and crime investigations			
Increased engagement between the police and the public to identify, understand, and tackle emerging threats			
Improved and correct deployment of resources to incidents			
Improved Police Officer and Partner safety			
Improved engagement with public around preventing cyber crime			
Total number benefits in progress	8	16	18

Figure (10): Benefits aligned to Transition State

There are a number of constraints and dependencies which need to be managed as part of the delivery roadmap

Ref	Title	Description
0.	**Strategy timescale**	The business case is predicated on delivering the key changes within a five year timeline with the aim of starting to deliver changes which enable benefits from the 2019/20 financial year.
1.	**Financial - Capital Budget Cycle**	The programme will require funding over multiple years, but existing funding cycles only allocate capital on a one year basis. The Programme will need to gain buy in for longer term commitment.
2.	**Legal - Procurement**	Procurement constraints relate to the need to comply with European directives regarding public sector procurement. Consideration has been given to this with guiding principles addressing the need to ensure a compliant procurement process. The Commercial Case provides details of procurement routes considered and their implications.
3.	**Legal - Staff related constraints**	Staff related legal constraints align to the anticipated changes in the structure and size of the organisation. The detailed Operating Model for ICT will need to be developed and strategies for implementing this will be developed in consultation with staff representatives and also with consideration of HR and legal advice. Changes will also impact ongoing restructure plans within ICT.
4.	**Workforce – skills availability**	Achieving the outcomes of the Programme requires a significant level of resource to be made available to the Programme. These resources are required from ICT, Change and Policing functions. The Commercial Case considers options for managing this constraint.

Ref	Title	Description
5.	**Business adoption**	The scale of change needs to be managed in a way which enables operational colleagues to adopt and make the most of the changes. This impact will be different across the eight legacy operational areas, dependent on the extent to which operational police roles have been modernised.
6.	**Back Office technology**	Back office technology is subject to the corporate services review and is therefore not covered in this documentation. Additional funding bids will be required to address any corporate systems requirements. The impact of this work is significant and, in respect of aspects (such as scope and resource/roster scheduling and deployment) has clear links to the C3 and other operational environments. There will also be overlapping activities and technologies (e.g. across data and information) which will require close management of interdependencies to ensure that duplicated effort and investment is avoided. There are a number of key risks which will need to be managed through Programme governance to address this so that Transforming Corporate Services and this Programme deliver to a common, aligned plan.

Table (4): Roadmap – constraints and dependencies

2.5. Addressing challenges in IT delivery

This business case has actively sought to address the risks and challenges commonly faced in complex ICT programmes.

Police Scotland continues to deal with the legacy of the i6 programme, which aimed to transform systems for core operational policing. There have also been multiple failed programmes across the Scottish and UK public sector. As part of developing these proposals, key lessons learned have been reviewed; these were published by Police Scotland, Audit Scotland, National Audit Office and others. These have been addressed throughout the business case as follows:

Audit Scotland Lessons Learned	Police Scotland i6 Lessons Learned	Remediation
Comprehensive Planning – what you want to achieve and how you want to achieve it should be clearly articulated.	Detailed requirements need to be fully explained and understood by supplier. Ensure appropriate time spent developing, mapping and understanding interdependencies.	• Deliverables clearly defined in Project Briefs attached to this SOBC; • An outline commercial strategy and delivery plan has been produced in the management case and an initial view of contract approach is available within the Commercial Case; • Regular meetings and workshops with PS subject matter experts to ensure requirements fully understood.
Active governance – appropriate oversight and control should be provided.	Police Scotland should ensure that all business areas take ownership of their processes. Ensure Senior Manager buy-in and scrutiny exists throughout the project.	• The Management Case sets out the proposed governance model, which is in line with good practice from other organisations.
Put users at the heart of the project – identify all stakeholders, understand their needs and help enable change.	Major projects should identify SPOCs and host stakeholder groups from the outset. Establish a process for ensuring supplier understands requirements.	• Workshops undertaken from project outset centred on major Policing 2026 themes to understand input from all aspects, such as back-office, technical, and frontline.
Clear Leadership – set tone and culture that provides accountability.	SPOCs who are senior enough to make decisions for divisions/departments should be identified.	• Steering Group established from project outset for where progress to date was reported on.
Strategic Oversight and Assurance – work within a central assurance framework and recognise strategic oversight adds value.	Establish a Business Transition Group to ensure business leads are briefed on project developments, governance and how output will impact their business area.	• Reporting to a weekly Steering Group to provide update on progress to date.

Audit Scotland Lessons Learned	Police Scotland i6 Lessons Learned	Remediation
		• Weekly Flash Report circulated as supporting material. • Regular deep dives and quality assurance of outputs and work in progress.
Right level of resources – there is a need for dedicated specialists to be in place to support delivery.	Provide dedicated resources from ICT, commercial, legal, procurement and other disciplines in support of delivery.	• Secure a suitably experienced delivery team and co-locate key resources.

Table (5): Lessons Learned

2.6. Conclusion

This work recommends that it is not practical to meet the challenges of Policing 2026 without significant activity to change the technology, digital and data models of Police Scotland. The next section therefore considers how this delivery could be best delivered.

3. Economic Case

3.1. Economic Case Overview

The Strategic Case set out the broad scope of change required (further information is set out in the Digital and TToM Strategy). The objective of the Economic Case is to consider how the proposed changes could best be delivered. The key elements of the economic case are:

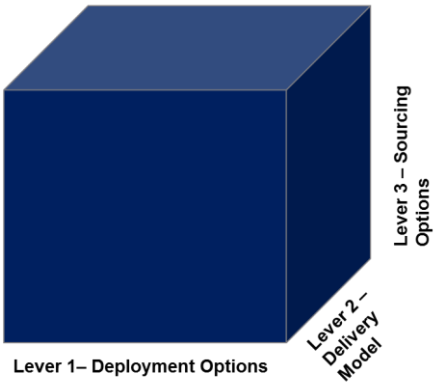
- A series of options have been developed, based on the key strategic choices available to Police Scotland to implement the TToM Strategy. These relate to key choices on the delivery model, sourcing strategy for new technology and deployment strategy;
- A do nothing option has also been developed – this is not recommended as it would not support delivery of Policing 2026 but is included to enable a robust comparison against the other options;
- Option appraisal has taken place against a set of qualitative and financial measures discussed with the Project Steering Group. These cover a range of key strategic considerations – for example, speed of delivery, impact on police offers and staff – as well as financial indicators such as cost and net benefits; and
- The preferred option at SOBC stage is to establish a delivery partnership – the financial implications for this option are set out more fully and will need to be more comprehensively worked up during the 100 day plan.

3.2. What are the potential approaches?

There are three key "levers" which Police Scotland could use to impact on risk, delivery timescales, costs and benefits

In delivering the TToM Strategy, the organisation can change its approach across the following key variables:

- **Deployment options** – the way and timescale over which changes are delivered into the operations of Police Scotland. This would impact on the speed of release of benefits, the amount of business change investment and the deployment risks;
- **Delivery model** – the extent to which the delivery of the ICT strategy is internally resourced or externally resourced. This primarily impacts on costs and delivery timelines; and
- **Sourcing model** – the extent to which Police Scotland makes or buys the components of the new model from the market. This would impact on the cost of change, risk profile and timescales.



The key variables across these levers are summarised below:

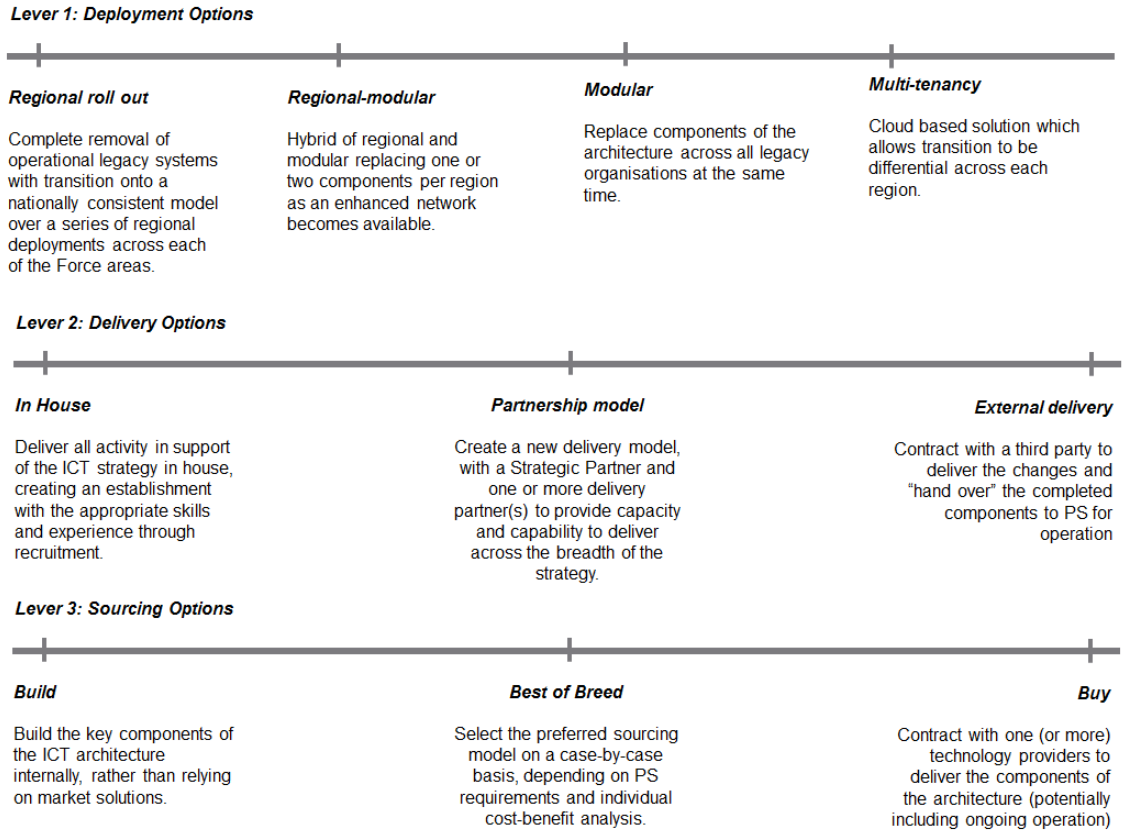


Figure (10): Lever variables

This leads to a set of options which summarise the alternative approaches available to Police Scotland:

Category	Description	Key options
Minimal change option	This option assumes that the ICT Strategy is restricted to necessary updates and lifecycle maintenance of ICT assets and software. It assumes no major investment in ICT change.	Option 1: Do Nothing
Deployment model options	These options consider alternative ways in which Police Scotland could use Lever 1 to change its quality, risk, and cost profile. Different elements of the ICT Strategy may require a mix of approaches to be used based on what is most appropriate. However, for the purposes of the Business Case these options are	Option 2: Modular Option 3: Regional Option 4: Regional-Modular Option 5: Multi-tenancy

Category	Description	Key options
	used to generate a 'preferred' deployment approach.	
Delivery and sourcing options	These options reflect different approaches to Levers 2 and 3 – and provide different models of governance, resourcing and commercials for the ICT Strategy. These are used to explore different potential cost models.	Option 6: In House Delivery Option 7: Third party delivery Option 8: Delivery partnership Option 9: Strategic Partnership

Table (7): Alternative approaches

Each of these options is explored in further detail in the following sections. The table in the next section explains these options.

3.3. Defining and evaluating the options

Summary of the options

Option Name	Description
Minimal change option	
Option 1: Do Nothing	This Option assumes that there would be limited change the ICT architecture or Target Operating Model. This would mean continuing to operate the current technical model, replacing applications and infrastructure on a reactive basis (for example, as a result of contracts coming to a natural end and the requirement to replace obsolete infrastructure). ICT will continue to primarily focus on providing access to core systems. Investment would be limited to the following key areas: • Investment in remediation of systems to address key regulatory requirements – for example, this would include improvements to 170 systems to reflect GDPR requirements; • Ongoing refresh programmes of underpinning technology and replacement of end-of-life systems; and • Completing tactical projects to deliver targeted improvements in business capabilities. This option involves less change and ICT delivery than current activity within Police Scotland – for example, mobile would cease. It is not recommended and would not deliver the aspirations of Police Scotland, but is used throughout this section to compare the impact of the various delivery options.
Deployment model options	
Option 2: Modular	Replace multiple individual components across all legacy forces at the same time – this would be complex in terms of the level of design work required to harmonise processes, integrate the solutions and ensure that each legacy force systems can interoperate. This would lead to single deployments of smaller releases of capability.
Option 3: Regional	The Force develops all system changes in a single development process, then transitions on a region-by-region basis to the new solutions, removing operational legacy systems as it goes. This is effectively a “big bang” change for each region but does not impact all regions at the same time.
Option 4: Regional-Modular	Hybrid of regional and modular, replace one or two components per region as enhanced network becomes available.

Option Name	Description
Option 5: Multi-tenancy	Multi-tenancy is a Cloud based solution which allows transition to be differential across each region. It involves deployment of a common solution, utilising a common database, but providing for differences in configuration to meet local functional needs. Note: Caution should be exercised in using this option as it may, inadvertently, result in a situation which opportunities to enforce nationally consistent operating practices are not exploited.
Delivery model options	
Option 6: In House Delivery	Police Scotland manage the delivery of the Programme within the ICT function – this would require internal recruitment of resources, most likely through a blend of contract resources and temporary / permanent new hires to the ICT operation. Additional resources would also need to be recruited for business change, commercial and procurement activity, and other key capabilities. ICT would then deliver the changes alongside day-to-day business operations.
Option 7: Third party delivery	Police Scotland procure a single delivery partner to deliver the change on their behalf – the Partner would be incentivised and accountable for the delivery of the technology (bringing their own supply chain together to support technology delivery) and managing the changes into the business. Police Scotland would need to put in place an effective client function to manage the supplier relationship and delivery, and to provide resources to support the Partner to deliver the changes required, but, would ultimately attempt to pass the risk to the providers.
Option 8: Delivery partnership	This option puts in place a Partner who works with Police Scotland leadership – potentially taking risk on elements of the Programme, providing support to projects on an input basis or providing advice to Police Scotland. This option would involve more resource from an external partner, but would continue to be majority delivered by Police Scotland. Leadership would be from Police Scotland, rather than from the partner. Police Scotland would therefore manage specific technology partners.
Option 9: Strategic Partnership	Police Scotland create a dedicated delivery vehicle to manage the change. Police Scotland would again procure a Strategic Partner to support leadership and delivery of change in a way which maximises the benefits. The partner could be incentivised to deliver these benefits. Dedicated leadership would be put in place for the Programme (which could be drawn from both a Strategic Partner and Police Scotland, rather than solely from the Force). Resources would be drawn from existing ICT, digital and other functions across Police Scotland on a “secondment” basis. However, this option sees an increase in third party leadership and delivery effort –less than half of resource input would be in-house resources. The Strategic Partner would support the management of a supply chain of delivery partners who would be accountable for delivering particular elements of the change.

Table (8): Defining delivery options

How have we assessed the options?

These options have been assessed in two stages:

- A qualitative assessment of each option against a series of design principles and "tests" – this has been used to discount options which are not viable quickly, and shortlist potential options for the next stage of evaluation; and

- A quantitative evaluation of shortlisted options, to assess their impact on costs and benefits over a five year period.

For the qualitative assessment, a series of Design Principles were developed as part of the TToM Strategy, which are set out below:

	• Our aim will be to simplify and standardise the Digital, Data & ICT assets that we utilise to support all aspects of Policing. This will support outcomes relating to efficiency but will also provide better access to data and tools which will improve the interaction that communities and public will have with Police Scotland. • We will also seek to adopt industry standard solutions where appropriate/unless there is a compelling reason not to.
	• We will adopt leading practices and provide opportunities for our staff to follow professional career paths. We will blend efficient operation of legacy ICT estate (while it continues to exist) and Agile delivery which will enable solutions to be delivered and evolved at pace.10 • Our organisational capability (which may include third parties as well as internal staff) will be designed to fulfil Police Scotland's needs for rapid adoption of technology and will provide access to the right skills and expertise when required.
	• We will become expert in managing and exploiting our data and information assets. In doing so, we will develop a better understanding of the services we deliver to communities and the public and also of the factors which determine our own performance as a Police Force. We anticipate that data and information will play an increasingly important role in enabling Police Scotland to direct Policing operations.
	• We will provide the capability to integrate our core systems where there is benefit to do so. This will improve efficiency, enable more effective response and also enable us to work in collaboration with partner organisations. Our approach to integration may comprise both tactical and strategic solutions depending upon the priorities of the outcomes we are seeking to achieve.

[10] NB: Agile needs to be considered in the wider context of organisational delivery as it is not specific to ICT elements of change.

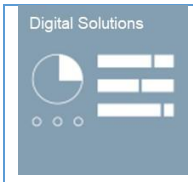
	• We will adopt a service led approach to the delivery of Digital solutions, taking account of the needs of law enforcement stakeholders and other partner organisations. • We will also provide solutions and tools which enable Officers and Staff to respond most effectively to evolving forms of crime (such as Cyber).
	• We will adopt a corporate portfolio based approach to prioritising, scheduling, and delivering our investments in Digital, Data and ICT. Our investment decisions will be based upon a balance of value, cost and risk (not necessarily lowest price) and the decision criteria will be determined by Policing 2026.

Table (9): Design Principles

These were then translated into a series of key evaluation "tests" as set out in the table below, which have been used to compare the available options:

Stage 1: Qualitative assessment						Stage 2: Quantitative assessment	
Strategic Fit	**Pace**	**Complexity**	**Risk**	**People**	**Quality**	**Cost**	**Benefits**
Extent to which the option supports delivery of Policing 2026	The ability of the option to deliver the pace of change to implement Policing 2026	An assessment of the complexity of implementing the TTOM	An assessment of the relative risk profile	An assessment of the impact on people and staff in the organisation	Will the option support improvement of maintenance of performance.	An outline assessment of the costs profile	An outline assessment of the benefits profile (cashable and non-cashable)

Table (10): Key evaluation test outcomes

All options have been subject to the qualitative appraisal. Options which were not viable after this have not been subject to assessed against the quantitative (cost and benefit) criteria. The economic case reviews each option in turn from a qualitative perspective, and then reviews the costs and benefits for each of the viable options.

Qualitative tests have been assessed on a high / medium / low scale where:

- High – the option is beneficial to this aspect;
- Medium – the impact is neutral; and
- Low – the option has a negative impact.

3.4. Assessing the "Do Nothing" option

Assessment of the "Do Nothing" option indicates that this is not viable in the context of Police Scotland's 2026 strategies

The 'Do Nothing' option does not meet the key tests set out, as summarised in the table below:

Key test	Impact	Rationale
Strategic Fit	Low	This option does not enable the delivery of Policing 2026.
Pace	Medium	Would still need to invest in upgrades to infrastructure, applications and ongoing support Pace of change for ICT would remain demanding.
Complexity	Low	ICT would continue to spend 65% of its time managing a complex landscape. Complexity for the front line in terms of multiple processes, systems and ways of working.
Risk	Low	Risks related to operational policing are not addressed Reduced ability to respond to new and emerging challenges, such as cyber. Interoperability across regions will remain challenging.
People	Low	Officers and staff will continue to have access to different systems and work to different processes dependent on their locations. Access to technology will increasingly lag behind recruits expectations of employers.
Quality	Low	Leads to an ability to accurately manage or measure service quality

Table (11): Key test and rationale

The key financial impacts of this option would be:

- Inability to deliver cashable and non-cashable savings through improved technology to support the front line – anticipated financial benefits are £0
- Ongoing requirement to fund ICT expenditure over the medium term to at least the current level – this may increase due to inflationary pressures;
- Ongoing requirement for c£20m capital per annum to sustain and manage existing applications and infrastructure; and
- Improvements to technology and data would require dedicated funding to be provided based on a business case.

3.5. Assessing the Deployment Model Options

A blend of regional and modular deployment will be used to plan the strategy and business case – but other options may be appropriate for specific elements of the strategy.

All options have unique strengths and weaknesses and could be appropriate for specific elements of roll-out, as summarised in the tables below*:*

Option 2: Modular – Qualitative Review

Key test	Impact	Rationale
Strategic Fit	Low	This remains a big bang deployment and therefore does not address the lessons of i6.
Pace	Medium	Dependent on deployment of the nationally enhanced network – roll-out could not be before completion of this project.
Complexity	Low	Significant integration effort and interdependencies with network improvements.
Risk	Low	Complexity of the deployment means there are multiple large releases which need to be trained and managed.
People	Medium	Multiple deployments mean officers have to be trained on multiple solutions at different times.
Quality	Low	Use of new functionality may be impacted by the quality of legacy data which needs to be migrated.

Table (12): Option 2 - Qualitative Review

Option 3: Regional – Qualitative Review

Key test	Impact	Rationale
Strategic Fit	Low	This approach does not address the findings from the i6 programme in relation to deployment approaches.
Pace	Low	Development is likely to take a number of years as each region needs a discrete roll out.
Complexity	Medium	The approach reduces integration effort and allows for alignment between infrastructure, data and technology to be more easily managed. However, national data sets would need work to maintain regulatory reporting requirements and FOI.
Risk	High	Each roll out should be highly predictable as there is a stable solution which can be trained and rolled out to the front line – the process can be improved at each stage.
People	Low	This option would mean that some areas of the front line might wait a significant length of time for improved ways of working.
Quality	Low	The solution would be predictable to roll-out but would lead to differential service quality for a number of years.

Table (13): Option 3 – Qualitative Review

Option 4: Regional-Modular – Qualitative Review

Key test	Impact	Rationale
Strategic Fit	High	Addresses learning from i6 on 'agile' roll-outs and delivers Policing 2026
Pace	High	Enables multiple deployments – meaning pace of change can be sustained. Enables phased decommissioning of local systems.
Complexity	Low	High level of integration effort. Large number of transition waves required to deliver the end state.
Risk	High	Balanced risk profile as transition can be tightly scheduled.
People	Low	Multiple deployments mean officers have to be trained on multiple solutions at different times.
Quality	High	The approach means individual deployments can be tightly managed to support quality of delivery.

Table (14): Option 4 – Qualitative Review

Option 5: Multi-Tenancy – Qualitative Review

Key test	Impact	Rationale
Strategic Fit	Medium	Delivers Policing 2026 and learns lessons of i6. Does not lead to national standardisation.
Pace	Low	Would likely take a number of years to roll-out
Complexity	Low	Highly complex integration for both data and applications.
Risk	High	Risk is reduced because of ability to be flexible in deployments.
People	Low	Multiple deployments mean officers have to be trained on multiple solutions at different times. Sustains current ways of working.
Quality	High	Releases immediate benefits as deployments are made.

Table (15): Option 5 – Qualitative Review

As a result, the deployment option will be determined on a solution-by-solution basis for the key elements of the TToM Strategy. For the purposes of the business case, deployment will be assumed to take place on a regional-modular basis.

3.6. Evaluation of Delivery Model Options

Qualitative evaluation suggests that two of the options are not viable in the context of Police Scotland, based on the analysis below

Option 6: In House Delivery – Qualitative Review

Key test	Impact	Rationale
Strategic Fit	Medium	• The delivery option would enable Police Scotland to deliver its 2026 vision in line with the transition plan
Pace	Low	• Slower than other potential options due to the need to recruit, vet and on-board new staff • Internal leadership capacity would also likely require a slower pace of change. • Existing governance would not be adequate
Complexity	Low	• Police Scotland are responsible for all aspects of delivery and co-ordination of a range of capabilities – e.g. managing the resource profile, mitigating delivery risks, managing suppliers, and change management.
Risk	High	• Police Scotland would retain ownership of risk and be accountable for mitigating this.
People	Low	• Places pressure on the senior ICT and change capacity within the organisation. • Opportunity to up-skill staff. • Maybe challenging to appoint suitably skilled and qualified individuals.
Quality	High	• Quality would depend on the skill of people recruited but could be in line with other options.

Table (16): Option 6 – Qualitative Review

Option 7: Third Party Delivery – Qualitative Review

Key test	Impact	Rationale
Strategic Fit	Low	• The delivery option would enable Police Scotland to deliver its 2026 vision in line with the transition plan • However, it is against a core principle of outsourcing delivery and does not reflect lessons from i6.
Pace	Medium	• Pace would largely be determined by how rapidly a deal of this size and nature could be procured.
Complexity	Medium	• Elements of delivery would be simplified – e.g. resourcing the programme, procuring solutions. • Procurement and supplier management challenges. • Arrangements for handover to BAU more complex.
Risk	Low	• Although risk could be transferred to the provider, ultimately some risks would remain with Police Scotland (e.g. if the provider failed to deliver). • This would require strong client side management as it creates a potential "single point of failure".
People	Low	• This would reduce pressure on internal resources to deliver as well as providing opportunities for staff to work with an experienced partner to gain skills. • There is a risk that opportunities to "grow our own" talent are not taken. • In addition, there is likely to be a negative impact on morale in existing teams.
Quality	High	• The deployment would be expected to achieve a quality standard which supported improvements in policing in line with an agreed transition plan. This is dependent on Police Scotland ability to manage suppliers.

Table (17): Option 7 – Qualitative Revie

There are believed to be significant advantages from both of the partnership options:

Option 8: Delivery Partnership – Qualitative Review

Key test	Impact	Rationale
Strategic Fit	High	• The delivery option would enable Police Scotland to deliver its 2026 vision in line with the transition plan.
Pace	Medium	• The option reduces the risk of slippage in delivery but requires recruitment to key roles within Police Scotland in order to mobilise. However, it reduces the risk to delivery of up-front procurement and recruitment, and supplements critical skills.
Complexity	Medium	• Police Scotland would need to directly co-ordinate its network of partners, but would have its resources supplemented to do so. However, this requires the procurement of a Strategic Partner as well as delivery suppliers for specific solutions.
Risk	High	• The model allows Police Scotland to spread the risks of delivery across a number of partners, rather than relying on one or taking on all risk itself.

Key test	Impact	Rationale
People	Medium	• This option provides the most opportunities for in house staff to develop and grow new skills. However, it means there would be additional pressure on internal resources to lead and deliver the change.
Quality	Hi	• The deployment would be expected to achieve a quality standard which supported improvements in policing in line with an agreed transition plan.

Table (18): Option 8 – Qualitative Review

Option 9: Strategic Partnership – Qualitative Review

Key test	Impact	Rationale
Strategic Fit	High	• The delivery option would enable Police Scotland to deliver its 2026 vision in line with the transition plan
Pace	High	• The option is the most likely to deliver at pace because it reduces the risk to delivery of up-front procurement and recruitment, and supplements critical skills.
Complexity	Medium	• The option requires Police Scotland to work with a network of partners, potentially increasing complexity. It also increases the number of procurements Police Scotland would need to run. However, Police Scotland would have support in delivering and managing the procurements.
Risk	High	• The model allows Police Scotland to spread the risks of delivery across a number of partners, rather than relying on one or taking on all risk itself.
People	Medium	• This would reduce pressure on internal resources to deliver and provide opportunities for staff to work with an experienced partner to gain skills. • There is a risk that opportunities to "grow our own" talent are not taken.
Quality	High	• The deployment would be expected to achieve a quality standard which supported improvements in policing in line with an agreed transition plan.

Table (19): Option 9 – Qualitative Review

All of the delivery model options have been assessed for their financial impact in the next section.

3.7. Financial evaluation of the delivery model options

Costs and benefits have been modelled over a five year period, reflecting the key components of delivery

To quantitatively assess the delivery model options a financial model has been developed which forecasts the costs and benefits of delivering the TToM over a five year forecast period. The cost and benefit assumptions are set out in more detail below, but in summary the key components of the model are:

- **The costs of purchase and development of new applications and infrastructure** required to improve the foundations of Police Scotland's digital, data, and technology, and introduce more advanced options for service delivery. These costs have been assumed to be capital unless there is specific reason for believing that they would require revenue expenditure.
- **The ongoing licensing, support and operational costs** of this technology. These costs are assumed to be revenue unless there is a specific reason why they could be capitalised.
- **The cost of resources required to deliver the programmes of work.** Resources have been captured across broad categories of activity (for example, programme management, technical resources, implementation, ongoing support) and the financial model estimates their costs based on the proposed distribution

of Police Scotland resource to external partner / supplier resource. Where resources are supporting implementation of solutions, these have been assumed to be capital expenditure.

- **Cashable savings** from changes in the costs of key functions as a result of the proposed changes. These savings come from both salaries (where functions are expected to require fewer FTE as a result of the changes) and third party expenditure (for example, where licences or data costs are expected to reduce as a result of the proposals). These benefits are assumed to be cashable.
- **Productivity savings from the front line.** Delivery of technology – particularly improvements in mobile capability, core operational systems and data – are expected to significantly improve the efficiency of operational policing. These savings have been estimated in cash terms but other UK Police Forces have not necessarily cashed these benefits, preferring to use them to increase focus on priority areas such as local policing. Cashing these benefits would in any case require change to the target number of officers required by Police Scotland.
- **Optimism bias.** HM Treasury good practice provides guidance on estimating optimism bias in programmes and projects of this type. Guidance suggests that at SOBC stage, between 10% and 200% of costs should be allowed to represent the risk of estimates changing (the risk factors are set out in Appendix 8.3). For each project, the risk factors have been considered and an estimate of optimism bias created. Overall, these represent a risk premium of around 50% which has been built into the business case.

Costs have been estimated for projects. However, benefits will typically be realised only with the implementation of several projects and are therefore estimated at programme level.

The evidence base for financial estimates is a range of other UK Forces which have implemented similar programmes

This SOBC is intended to provide estimates of costs which have a supporting evidence base. It recognises that for each project, a specific business case and more detailed costs will be required during the 100 day plan stage. To support the development of estimates, the following evidence base has been considered:

- SOBCs, Outline Business Cases, Full Business Cases and lessons learned reports from similar projects undertaken in other UK Forces, public sector clients (e.g. government agencies) and private organisations. These have been adjusted to reflect key differences in Police Scotland (for example, numbers of officers).
- Publically available information on other Police Forces, their IT strategies and business cases and projects. As part of this work, documents from South Yorkshire and Humberside, the Metropolitan Police Service and Avon and Somerset have been reviewed, for example.
- Work provided by Police Scotland on existing Interim Business Cases for Mobile Policing, Digital ICCS, ADEL and National Networks programmes.
- Data and information provided by Police Scotland on baseline budgets, planned capital expenditure and staffing information.

This evidence has been used to create a set of assumptions which drive the financial analysis set out below. Critical assumptions are included in Appendix 8.4 and resource estimates are within the financial model.

Estimating the costs of delivery

This section sets out the indicative costs of delivery and how these have been estimated. There are four key categories of cost which have been captured in the financial model:

Technology

Technology costs have been estimated across five key categories of expenditure for both the initial implementation costs and ongoing costs of support, and considering revenue as well as capital implications:

- Purchase
- Maintenance
- Licenses & Subscriptions
- Consumables
- Mobile data & Telecomms

Resourcing requirements

It is estimated that delivery of the TToM will require around 120,000 days of effort over the duration of the 5 years – the peak team size will reach around 124 FTE in year 2 before declining over the remainder of the programme. Resources have been estimated for projects based on the following types of roles:

- Project Management
- Business
- Technical
- Implementation
- Service Management & Support

Other costs

Other costs covers predominantly training costs. These costs are small relative to the investment in resources and technology, but essential to successful delivery of the Programme of work.

Optimism bias

Optimism bias has been reviewed for each project against the risk factors set out in Appendix 8.3 which cover:

- Procurement
- Project issues
- Client issues
- External factors
- Environment factors.

Based on analysis of these risk factors, projects were ranked on a scale from 0 – 5, where 0 represented complete confidence that a project could be delivered within the

estimates provided and 5 represented a significant risk of over-run. These levels had optimism bias added according to the following scale:

OB rating:	0	1	2	3	4	5
% applied to costs:	0%	30%	80%	100%	150%	200%

Table (20): Optimism Bias

Overall, this led to an average optimism bias across the programme of 50% being applied to costs.

Option specific assumptions and adjustments

To compare the delivery model options we have varied two key sets of assumptions:

- The proportion of internal / external resources deployed on implementation support – this varies from 80% of internal resource for Option 6 to 20% under Option 7;
- To reflect the different risk profile of delivery models, optimism bias was adjusted – this was applied to all ratings over 1, but the maximum OB adjustment was held at 200%

	Option 6: In House Delivery	Option 7: Third Party Delivery	Option 8: Delivery Partnership	Option 9: Strategic Partnership
Delivery Style	Delivery led internally, with external resource kept to a minimum.	Delivery partner leads with minimal Police Scotland resource.	Delivery led internally, with resource supplemented by a partner in targeted areas	Delivery partner supports leadership and delivery, providing higher levels of resource
Proportion of internal resource (assuming 50:50 officers to staff)	80%	20%	60%	40%
Proportion of resource from external partners	20%	80%	40%	60%
Risk of not delivering	Very high (additional 50%	High (additional 35% optimism bias)	Medium (additional 20% optimism bias)	Lowest (default optimism bias) – however, there remain risks (e.g.

	optimism bias)			loss of internal knowledge of landscape, data, technology, etc.)

Table (21): Option Evaluation

Analysis of gross costs

The table below provides a breakdown of capital costs for the TToM programme. These costs are presented as a range which reflects the alternative options available to Police Scotland across the workstreams:

Workstream	Scope areas	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Business Change Management	Business Change Management, Business Change Implementation (Transitions 1 - 3)	1.5 to 2.4	4 to 6.3	4 to 6.3	4 to 6.3	1.7 to 2.8	**15.2 to 24.1**
Commercial & Procurement	Procurement & Commercial Management, Contract Management	1.4 to 2.1	1.7 to 2.7	1 to 1.5	1 to 1.5	0 to 0	**5.1 to 7.8**
Information & Data	Technology selection, warehousing, analytics	11.9 to 14.3	5.1 to 6.4	1 to 1.1	1 to 1.1	1 to 1.1	**20 to 24**
Infrastructure	ICCS, Nat Net, Maintaining core infrastructure	14.6 to 15.8	5.1 to 6.1	1.1 to 1.2	0.1 to 0.1	0.1 to 0.1	**21 to 23.3**
Programme Management	Programme management, enterprise architecture	2.7 to 4.2	3.1 to 4.9	3.1 to 4.9	3.1 to 4.9	2.7 to 4.2	**14.7 to 23.1**
Solution Delivery	Mobile, core operational systems, unified communications	25.1 to 29.9	33.1 to 39.7	28.7 to 33.9	0.1 to 0.1	0.1 to 0.1	**87.1 to 103.7**
Total		**57.2 to 68.7**	**52.1 to 66.1**	**38.9 to 48.9**	**9.3 to 14**	**5.6 to 8.3**	**163.1 to 206**

Table (22): Analysis of gross costs

And the following table summarises the potential revenue costs (these costs do not reflect compensating reductions in cost areas, which are considered in the next section):

Workstream	Scope areas	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Commercial & Procurement	Procurement & Commercial Management, Contract Management					0.7 to 1.1	**0.7 to 1.1**
Information & Data	Technology selection, warehousing, analytics	7.8 to 12.9	13.4 to 21.9	6 to 9.8	2.7 to 4.4	2.2 to 3.5	**32.1 to 52.5**
Infrastructure	ICCS, Nat Net, Maintaining core infrastructure	2.5 to 2.6	2.8 to 3	3.4 to 3.5	3.4 to 3.5	2.8 to 2.8	**14.9 to 15.4**
Operating Model & Organisation	New ICT operating model	1.2 to 1.9	0.6 to 1	1.6 to 2.6	0.2 to 0.4	1.6 to 2.6	**5.2 to 8.5**
Solution Delivery	Mobile, core operational systems, unified communications	0 to 0	0.1 to 0.1	4.3 to 6	4.5 to 6.2	3 to 4.1	**11.9 to 16.4**
Total		**11.5 to 17.4**	**16.9 to 26**	**15.3 to 21.9**	**10.8 to 14.5**	**10.3 to 14.1**	**64.8 to 93.9**

Table (23): Potential revenue costs

The following tables show the anticipated gross costs of delivery (revenue and capital) for each option over five years and a summary cost profile for each option. The costs of in house delivery are higher than partnership models due to the increased risk of slippage involved. Third party costs are higher due to the additional resource costs and risk transfer costs.

Gross costs (£m)	Option 6: In House Delivery	Option 7: Third Party Delivery	Option 8: Delivery Partnership	Option 9: Strategic Partnership
Staffing and officers	61.17	21.20	42.80	21.20
External resources	61.78	153.66	85.27	103.66
Technology costs	123.60	119.00	113.50	106.17
Other costs	4.35	4.03	3.72	3.29
Total costs	**250.90**	**297.89**	**245.29**	**234.32**

Table (24): Anticipated gross costs

While internal resource costs are lower than costs from market providers, the increased risk of delay and missed benefits associated with Options 6 and 7 means that, taking into account risk, the estimated cost are are considered to be higher. However, the difference between the Partnership options (8 and 9) is low, and minor changes in resource costs or risk could impact on this. For this reason, it is recommended that both models are further considered in the OBC.

Estimating the benefits of delivery

Staffing savings

The TToM has the potential to enable staffing savings in a number of areas across corporate services:

- IT function – the IT function is currently below its budgeted establishment with current headcount supplemented by contractors. There may therefore an opportunity to 'right-size' the IT Operating Model to reduce the operating costs (e.g. by reducing reliance on contract resources);
- Information Management – improved data quality, architecture and analytics has, in other forces, enabled a reduction in the numbers of staff who currently manage less efficient processes; and
- Analysis and Performance – improved data structures, systems, and analysis should enable standardisation of reporting and analysis in a way which enables efficiencies.

While the SOBC identifies the cashable benefits of these savings, Police Scotland could choose to reinvest savings in improvements in services: e.g. improving the ability of the Force to deliver analytics. Assumed savings in this SOBC are at the lower end of comparable organisations and based on estimates.

It should be noted that the cashable benefits from staffing savings require further work to understand how the commitment to avoid compulsory redundancy could be protected while achieving targets.

Non-staffing savings

Non-staffing savings are expected to occur across a number of areas:

- Changes in infrastructure costs through national networks, telephony and other projects (new costs of these projects have been estimated in the project costs);
- Changes in telecommunications costs through use of mobile;
- Reductions in maintenance costs for legacy systems as they are replaced by more modern solutions; and
- Replacement of existing licensing costs with new costs.

It should be noted that the Force has ongoing projects reviewing these areas, so further diligence on how these are counted is required in the next phase of work.

Productive time benefits

By improving core systems, better (and proactively) providing information to officers and enabling them to work on a mobile basis, the TToM proposals create the opportunity to release time from front line operations. This will need to be delivered in conjunction with redesign of the way policing works across Scotland to be more standardised, less fragmented and more mobile. Nationally, Forces claim a wide range of benefits from these changes, ranging from around 16 minutes per shift to over 1 hour per shift. Benefits are highly dependent on the geography, adoption, and caseload of officers. Estimated potential benefits are based on 36 minutes per shift (as this is based on Police Scotland data for existing mobile users). However, in scenario testing, the impact of this reducing to 16 minutes has been evaluated.

Overall benefits projection

The tables below summarises the staffing, non-staffing and productive time benefits estimated by the SOBC:

Benefits summary (£m)	Baseline 2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Operating Model Savings	-19.00	0	0	0.4	1	2	3.4
Third Party Savings	-21.30	0	3.4	4.5	5.8	5.9	19.6
Productive Time	-767.90	0	0	13.8	27.6	27.6	69
Total	**-808.20**	**0**	**3.4**	**18.7**	**34.4**	**35.5**	**92**

Table (25): Benefits summary

Quantitative evaluation of the potential delivery model options

To evaluate the “cost effectiveness” of cashable costs and benefits of the delivery model options, four measures have been used:

1. Gross cost of delivery (before funding and before benefits);

2. Net cost/benefit of delivery (after funding and including cashable and productivity benefits);

3. Net Present Value (NPV) of the net cost/benefit (including productivity benefits);

4. Overall revenue impact of the proposals

The table below summarises the key impact of the options on these key areas – all represent a significant investment case, and costs will not be offset by savings during the timescale of the programme:

Key metrics (£m)	Option 6	Option 7	Option 8	Option 9
Gross cost	254.95	245.29	234.33	297.89
Net cost	162.95	153.29	142.33	205.89
NPV	(140)	(131)	(128)	(180)

Table (26): Key metrics

The table below summarises the revenue impact of each option. Excluding capital investment from the analysis shows the potential for the TToM to have a significant financial benefit for Police Scotland under three of the options.

£m	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Option 6: In House Delivery	(11.6)	(13.7)	1.5	21.8	24.2	22.2
Option 7: Third party delivery	(17.3)	(22.6)	(2.6)	20.5	21.8	(0.2)
Option 8: Delivery partnership	(12.8)	(15.5)	1.8	22.6	24.5	20.6
Option 9: Strategic Partnership	(14.1)	(17.3)	1.6	23.0	24.5	17.7

Table (27): Revenue impact of option

3.8. The preferred option

Overall, Option 8 scores highest (or joint highest) on all of the measures. This evaluation needs to be further tested during the 100 day plan as result of the marginal differences between two of the options:

Option	Qualitative Appraisal	Cost / Benefit Appraisal	Rank
Option 6: In House Delivery	*Low*	*Medium*	3
Option 7: Third party delivery	*Low*	*Low*	4
Option 8: Delivery partnership	*Medium*	*High*	2
Option 9: Strategic Partnership	*High*	*High*	1

Table (28): Option summary and rank

For the purposes of this document, Option 9 has been used as the basis for the Financial Case in the next section.

4. Financial Case

4.1. Introduction

This section sets out the anticipated impact of the TToM on the Medium Term Financial Plan (MTFP), Police Scotland Budgets and the capital plan for the organisation. The analysis in this section is based on pursuing Option 8.

This section finds that:

- Over the medium term, the proposals will have a positive impact on the Medium Term Financial Plan and Police Scotland;
- However, the Force does not have the available capital to deliver the programme over the next five years; and
- The next stage of the programme will require resources in order to increase confidence in the financial position.

The figures have been calculated using the assumptions set out in the Economic Case and this section only provides relevant additional information.

4.2. Over the medium term, proposals will have a positive impact on the medium term financial plan

The table on the next page shows the impact of the TToM on the medium term financial plan. The key features of this are summarised below.

[continued on next page]

£m	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	Total
Capital costs (a)	-57.6	-53.5	-39.7	-10.1	-6.0	0.0	0.0	0.0	-166.9
Revenue costs (b)	-14.1	-20.7	-17.1	-11.5	-11.1	-11.1	-11.1	-11.1	-107.8
Total costs	**-71.7**	**-74.2**	**-56.8**	**-21.6**	**-17.1**	**-11.1**	**-11.1**	**-11.1**	**-274.7**
Revenue benefits (b)	0.0	3.4	18.7	34.5	35.6	35.6	35.6	35.6	199.0
Existing capital available for projects (a)	15.8								15.8
Cashflow impact	**-55.9**	**-70.8**	**-38.1**	**12.9**	**18.5**	**24.5**	**24.5**	**24.5**	**-59.9**
Revenue impact	**-14.1**	**-17.3**	**1.6**	**23.0**	**24.5**	**24.5**	**24.5**	**24.5**	**91.2**

Table (29): Costs breakdown

Notes (a) and (b) are explored on the following pages.

A) A requirement for Capital investment of at least £167m of which only £15.8m is currently budgeted

The Force has agreed on a capital programme for ICT investment as set out below. The cells highlighted in green are covered by the scope of the TToM – this equates to £15.8m of expenditure:

Police Scotland Capital Expenditure Plan	Total £m
Business As Usual Rolling Programmes	
ICT	6.3
Change Programmes	
Corporate Services Transformation	0.5
Commercial Services Transformation - Procure to Pay	0.4
Digitally Enabled Policing - Mobility	1.4
Digitally Enabled Policing – Core Operating Systems	5.0
Cybercrime Capability	0.5
Payroll Transformation	0.1
ICT - National Network	1.7
ICT - ADEL	4.7
ICT - Digital ICCS	2.5
Total	**23.1**

Table (30): Capital programme for ICT investment

As a result, Police Scotland has an additional capital requirement of around £151.1m to support delivery of the Programme over the next five years:

£m	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Capital costs	-57.6	-53.5	-39.7	-10.1	-6.0	-166.9
Existing capital available for projects	15.8					
Capital requirement	**-41.8**	**-53.5**	**-39.7**	**-10.1**	**-6.0**	**-151.1**

Table (31): Additional capital investment required

This assumes the least expensive option is taken forward, and that costs could increase as a result of detailed evaluation.

B) There is an estimated positive revenue impact of £92m over the period to 2026

The Programme requires investment of £14.1m in 2018/19 and £17.3m in 2019/20 but thereafter is positive in terms of revenue return through benefits. The profile for the initial five years is highlighted below:

£m	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Revenue costs	-14.1	-20.7	-17.1	-11.5	-11.1	-74.5
Revenue benefits	0.0	3.4	18.7	34.5	35.6	92.2
Revenue impact	**-14.1**	**-17.3**	**1.6**	**23.0**	**24.5**	**17.7**

Table (32): Revenue impact

The key impacts will be on the budget lines for:

- Operational policing (assuming productive time benefits are cashable) – budgets could potentially be reduced as a result of cashing productive time improvements. Although other UK Forces have typically sought to maintain manpower numbers and reinvest in, for example, community policing, this approach provides opportunity to achieve Police Scotland targets for reductions in Officer numbers if required;

- Technology (in particular staffing and ICT costs) – staffing costs are likely to increase significantly during the implementation period, before falling as a new "steady state" operation is delivered by the TToM. Some current maintenance costs could reduce (e.g. the requirement to maintain legacy systems, multiple infrastructure / telephony / data costs) where support for new equipment is more cost effective. While licenses for old systems are also likely to fall, these will in many cases be offset by the cost of new licences. A key change would be the migration of more data to the cloud – which would increase revenue expenditure but decrease capital costs of maintaining on premises warehouses; and

- Information Management and Analytics and Performance units – again, costs could potentially fall as a result of improved analytics and data management. However, Police Scotland will need to form a view on the extent to which this is desirable as an objective in the context of the need for reporting and information to underpin the aspirations of Policing 2026.

4.3. Requirements to deliver the 100 day plan

The project has estimated the resources required to deliver the 100 day plan set out in the Management Case. Activities are further outlined in that Case, but in summary include solution design, procurement strategy development, business case development and preparation for implementation.

This effort will require both internal resource and existing project resources. However, there is also a requirement for external support to bring in additional expertise and capacity. The detailed resourcing estimates are set out in the management case and the expectation is that these costs will be met from existing Force budgets.

5. Commercial Case

5.1. Commercial Case Overview

The Commercial Case identifies the market for those services required by Police Scotland to deliver the projects outlined in the Economic Case. It describes how Police Scotland may access and engage with the market in a way that will optimise value for money. It covers:

- Scope of potential procurement(s);
- Commercial risks to be addressed;
- Principles / approach to be adopted;
- Routes to market and timescales;
- Procurement approach; and
- Analysis of key procurement options for each scope area.

5.2. What do we need to buy?

The Strategic Case outlined the required projects and changes across a series of key workstreams. Across these workstreams, an initial view of procurement components has been developed based on the key elements of the TToM. Procurement would be required for both solutions, with the category and examples of services outlined below:

Procurement Category	Illustrative requirements
Operational	POLE Compliant Store Command & Control Core Operational Systems Evidence
Operational Data & Information Services	Data Quality & Migration Reporting, visualisation & analytics Master Data Management Data Warehouse 'Legacy' Data Store
Mobile Solutions	Devices Mobile Device Management Data E-notebook
Integration Platforms	Middleware Systems Integration Services
Unified Communications	CRM Workflow Case Management
Strategic Support	Strategic Partner Legal support Interim resourcing Quality assurance

Table (33): Procurement requirements

It is anticipated that in the next stage of work, further analysis will take place and additional procurement requirements may be identified.

5.3. Managing Commercial Risks

As set out in the Strategic Case, a series of reports and inquiries into public sector IT delivery have identified risks to be mitigated. For the TToM a range of key procurement risks need to be actively managed – and this section sets out the proposed approach to procurement which is intended to mitigate these risks. The table below outlines the key risks and how it is intended to mitigate these:

Risk	Impact	Mitigation
Market Failure	There is a risk that poor competition is generated because there are insufficient properly qualified suppliers.	An initial overview of the market is provided in this section, and the 100 day plan includes engagement with the market.
Supplier failure	The competition leads to the appointment of a supplier who fails to deliver on the contract or performs poorly.	The evaluation model will need to place sufficient weight on evidence of ability to perform, financial sustainability and other key issues.
Volume risk	Significant fluctuations in demand jeopardises validity of economic model for either Police Scotland or the supplier, leading to contract breakdown.	Analysis of requirements and volumes prior to procurement, and with structuring of the contracts to enable both parties to mitigate the risks.
Performance risks	Supplier underperforms on service delivery, leading to loss of confidence in the solution and failure to deliver benefits.	Put in place service credits and other penalties, aligned to key performance standards.
Bidder drop out	Bidders dropping out of the process in the dialogue phase will result in reducing competition amongst remaining bidders	Take an appropriate minimum number of number bidders into evaluation to maintain competition.
Procurement timescales	Significant delays compared to the roadmap are likely to impact the target date for implementation and reduce benefits.	Identify contingent areas or options such as only contracting for what can be specified. Consider incremental approach to contracting
Capacity to secure and manage suppliers	Failure to identify adequate resource in preparation for next phases may result in delay to procurement timescales.	Resource plans prepared in advance so resources may be identified and secured. This is covered in the Management Case. The Force will need to have access to dedicated legal support, commercial support to develop the specifications and procurement expertise.
Benefit Realisation	Suppliers are unable to achieve the level of benefit desired by the force.	Define approach to include ongoing monitoring and testing of benefits. Control of the design and change request process to support benefits delivery.
Requirements & Target Architecture are immature	There is a risk that the level to which requirements, and the target architecture has been defined means that the requirement shared with potential suppliers could be subject to change, leading to poor solution design and subsequent rework.	Allow time to prepare and improve the requirements – this improves the chances of a successful procurement. The 100 day plan is intended to support this process.

Table (34): Managing commercial risks

5.4. What are our commercial objectives?

To mitigate these risks, a series of objectives and principles are set out below. These are based on common procurement practice in other public and private organisations:

Key objectives:

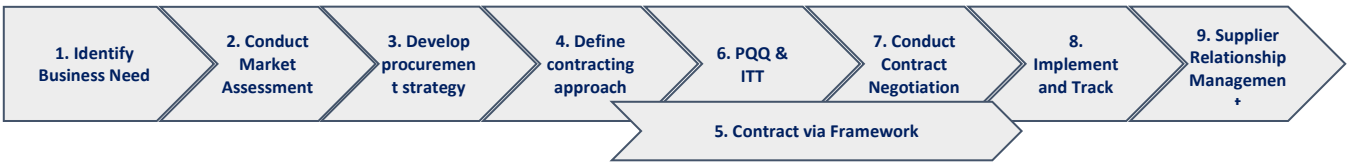
- Conduct all procurement activity in line with an agreed set of Procurement principles (see below);
- Enable the benefits of the programme to be achieved; and
- Manage commercial risks effectively

Procurement Principles:

- **Efficient Procurement**: Execute the procurement in the most cost and time efficient way whilst satisfying the regulations related to public procurement, for example running activities in parallel (where appropriate) to compress timescales;
- **Value for money**: Achieve value for money in the contract through effective commercial negotiation and deal-making and the application of the HMG's aggregated buying power;
- **Deliverability**: Ensure that the procurement is deliverable given the resource, cost and time constraints of the contracting authority;
- **Focus on business outcomes**: Focus contractual service requirements on business outcomes rather than an over-specification of intermediate processes, to encourage supplier innovation and reduce procurement cost and timescales
- **Balanced supplier selection criteria**: Select the most appropriate supplier through a fair evaluation process that strikes the right balance between the commercial deal and the capability, capacity, and behaviours of the supplier;
- **Learn from, and contribute to good practice**: Apply lessons learned from other Government procurements (national and local) and align with emerging Cabinet Office procurement guidance to share experiences;
- **Build in-house capability**: Build in-house capability of the contracting authority in delivering lean procurement, ensuring a smooth transition to the future contract management function;
- **Build and maintain senior relationships:** Invest time to establish strong 'partnering' relationships at the most senior level throughout the procurement (e.g. SRO/Chief Constable and supplier Chief Executive), built around a shared set of objectives;
- **Invest time in internal stakeholders**: Allow sufficient time for stakeholder engagement and approvals, recognising the complex stakeholder environment in policing;
- **Effective governance and decision making**: Establish effective procurement governance with clear accountabilities that enables rapid escalation and decision making;
- **Clear decision points**: Break the procurement down in to a series of clearly defined phases separated by gates, each of which requires authority to proceed;
- **Effective use of assurance**: Ensure an appropriate level of assurance that reassures senior stakeholders and decision makers that due process has been followed and that recommendations are built on facts and a fair process; and
- **Incentivisation**; the supplier should be clearly targeted to suggest improvements to improve value or reduce cost to Police Scotland over the duration of the contract.

5.5. How can we use the process to drive benefit?

There are a number of steps which make up the end to end Procurement process, composing Sourcing plus Supplier Relationship Management. Each step is depicted in the diagram shown below, and is subsequently described. This stage has carried out initial work on steps 1 – 3, but these require further work following approval of the SOBC:



1. **Identify Business need:** ICT would work with procurement and business representatives to determine the high level technical and functional requirements of the solutions to be procured.
2. **Conduct market assessment:** The market has been analysed to determine whether the needs of the business and IS can be met. This assessment period involved meeting potential suppliers to initially review their products and services, followed by deeper assessment and clarification questions.
3. **Define category and approach:** The range of products and services required from the market were grouped into appropriate categories.
4. **Define contracting approach:** Lots were defined for each category and will be procured in parallel. Suppliers will be able to compete for single or multiple Lots via the chosen procurement route.
5. **Contract via framework:** When it is determined that the most advantageous method of contracting is via a pre-existing GPS framework. This is usually used for more bespoke contracts, when more innovative methods of determining supplier performance are not relevant. This route offers a number of benefits including: shortened procurement timelines, ease of access to the market, and reduced procurement costs.
6. **Conduct Pre-Qualification Questionnaire (PQQ) and Invitation to Tender (ITT) or Invitation to Submit and Outline Proposal (ISOP)**

   Where the full OJEU route is determined as the most appropriate route forward an OJEU advert needs to be placed, and the strict timescales imposed must be adhered to. Whilst there is one OJEU process, there are three variations to that process. They are summarised below:

   <u>Open</u>

   - The Open procedure is typically used for simple procurements where the requirement is straightforward. Normally used where the buyer is seeking the lowest price and the requirement is clearly defined.
   - Consideration – A large number of bids could be received for an invitation to tender if there is a large supply market for the requirement. If used, a Prior Information Notice (PIN) must be issued at least 52 days prior to the contract notice being issued.
   - Timescales – Contact Notice to Response – 52 days (or 36 days with PIN and portal). Standstill period of 10 days.

Restricted

- The Restricted procedure is similar to the Open procedure although prospective bidders are pre-qualified prior to the buyer inviting tenders. This serves to narrow the number of bids a buyer may receive, however, the market needs to be engaged fully and formally through an open event which increases the burden in the early days of the procurement. If Police Scotland can articulate the requirement in its entirety and does not require negotiation this may be the most appropriate procedure.

- Consideration – Pre-qualification will increase buying timescales. Buyers may wish to mitigate this by planning ahead and issuing a PIN and using an electronic tendering portal and adopting Cabinet Office guidelines for Lean Procurement.

- Timescales – Contract Notice to expressions of interest – 37 days (or 30 days with PIN). Issue PQQs and pre-qualify. Submission of ITT to bid responses – 40 days (or 22 days with PIN and portal). Standstill – 10 days.

Negotiated/Competitive Dialogue

- Both the Negotiated and Competitive Dialogue procedures can only be used in limited circumstances. The circumstances must demonstrate the requirement is for a genuinely unique solution or the buyer cannot produce a comprehensive tender document without first discussing their requirement with qualified bidders.

- Consideration – Dialogue can be resource intensive and may cause delays unless firmly time bound. The level of market analysis conducted to date, and the level of requirements both technical and functional obtained may negate the need for the Dialogue approach.

- Timescales – Contact Notice to expressions of interest – 37 days. Tendering and negotiation period – variable. Standstill – 10 days.

A summary of procurement timescales is provided in the table shown below.

Stage	Activities	Completion month (from OJEU release)[11]
PQQ Stage	Publication of an OJEU notice, prospectus, and completion of a Prequalification exercise, leading to a long list of no more than five bidders	2
Competitive Dialogue Stage	Discussion of programme requirements with long listed bidders and down selection to no more than three. Detailed discussion with remaining bidders and preparation of final business and commercial requirements. Evaluation will be based upon bidders' responses, references and assessment of their partnering	5

[11] NB: these are achievable timescales but would require a refresh of Force governance and approval processes to be met consistently. Current cycles of approval can take 4 months, and extensions to these timescales would reduce the ability of the Force to achieve the roadmap and transition plan.

Stage	Activities	Completion month (from OJEU release)[11]
	capability as evidenced by behaviour during the negotiations. Evaluation criteria will include partnering ability, commercial flexibility, commitment to innovation, specific delivery skills appropriate to the programme and where necessary, passing more detailed financial scrutiny. Bidders will also be asked to put forward innovative ideas that optimise the balance between benefit delivery, costs and delivery risk, and these will be evaluated.	
Contract Award	Submission and evaluation of final tenders, clarification, placing suppliers under contract	7

Table (35): Procurement timescales

7. **Conduct Contract Negotiation: (Not required in Competitive Dialogue route above)**

   When a preferred supplier is identified there will be further discussions regarding terms and conditions to ensure that they are agreeable to both parties.

8. **Implement & Track**

   After the standstill period, the contract can be awarded.

5.6. Review of options for key procurement areas

This section summarises the key requirements, market considerations, and procurement considerations for the scope areas which require procurement. In some case, vendors have been identified as illustrative of the types of solutions available. However, at this point, no full analysis of requirements has taken place and other vendors are likely to be viable. This will be further considered in the Outline Business Case.

Operational

What could we be buying?	POLE Compliant Solution Command & Control Core Operational Systems Evidence
Market considerations	Although the market is reasonably dynamic, the distinctiveness of Police Scotland's regulatory and legal environment means that for some elements of solutions (particularly crime), implementing a solution from the wider UK market is unlikely to be like-for-like, which will have commercial implications. There is a mix of 'in-house' developed and 'Commercial Off-The Shelf' (COTS) products across the 43 UK Police Forces today. Three COTS products dominate the market in this space, they are Niche RMS (14 forces), Northgate GEM/CIS (8 forces), and Capita UNIFI (3 forces). Therefore multiple vendors have a deep knowledge of the Police 'business', and have a significant level of expertise in solution

	development, delivery, and service provision in the UK – however, this is not necessarily true for Police Scotland.
Contract requirement	The requirement in this space is for a COTS Integrated Operational Policing solution to replace the functionality in legacy operational systems. Remaining modules will be designed and built by Police Scotland. The solution should meet the flexible approach to architecture to enable ease of integration, and must enable the strategic objectives of the programme – in summary; mobility, agility and collaboration. Although suppliers may be willing to participate in risk reward mechanisms (and/or open book accounting), typically, most appear to favour traditional 'license agreement' arrangements.
Contract Duration	• The level of transformation and investment from both Police Scotland and the supplier(s) to design, implement, configure, test, train the workforce and roll out an Integrated Operational Policing solution across Police Scotland is significant and therefore the agreement should be of an appropriate contract term. In order to offer best value, a contract term of five years (minimum) would likely be required. This is in line with similar solutions commissioned in both public and private sector. This may include options to extend.

Operational Data & Information Services

What could we be buying?	• Data Quality & Migration • Reporting, visualisation, and analytics Master Data Management Data Warehouse 'Legacy' Data Store
Market considerations	• **Data Quality:** Required to establish the status and quality of data to support GDPR compliance and to determine data to be migrated from existing systems to new systems. • **Data Migration:** Required to transfer existing data from current operational systems to new systems. • **Master Data Management:** dependent on POLE store availability in the selected Core Operational Solution and the data management landscape, an MDM solution may be required to underpin data definitions • **Data Warehousing:** Required to underpin reporting (management and regulatory) including historical analysis and forecasting and to support advanced analytics capabilities • **Analytics / Reporting / Visualisation:** required to provision pre-configured and self-service insight to the business, partners and the public • **'Legacy Data Store':** required to enable that data which needs to be retained, but is not required in the selected Core Operational Solution, to be migrated to a new store hosted on a central data centre, and support decommissioning

	• The supplier market also comprises organisations able to perform short, sample data quality assessments with specialist Police Market knowledge
Contract requirement	1. There are two options for contracting; firstly adoption of software and services via an existing framework such as G-Cloud (where a number of Data & Information software providers and Systems Integrators are available) on a requirement by requirement basis, or the selection of a partner of choice to deliver all Systems Integrator ("SI") type services to the programme in a type of 'call off' agreement which includes provision of software: 2. **G-Cloud** – Services are available via G-Cloud to provision data-centric software and services including providing government security compliant technologies. 3. **Framework** – There is no directly applicable framework, however, various frameworks offer data and information services as a component part, such as Software Application Solutions and IT Managed Services.
Contract Duration	• Contract durations will be dependent on the approach taken to software procurement and hosting. Some cloud-based solutions provide for software priced at the point of use in a scalable way depending on volumes. The contract term for a systems integrator will depend on the approach taken regarding the use of a framework or 'Call off' agreement.

Mobile Solutions

What could we be buying?	Devices Mobile Device Management Data E-notebook
Market considerations	The Mobile Solutions Programme will be required to procure the following: • **Platform -** The hardware and licences required to host a mobile Policing application. • **Devices –** An estimated 6,292 Smartphones and 3,617 tablets to be procured by the project. The overall mobile device estate is estimated to be 11,081. • **Network –** Including connectivity, airtime and data. • **Applications –** Procurement, implementation, and managed service elements of a suite of policing applications. • **Asset Management –** A managed service for provisioning, system administration, and break/fix process for all the end user devices. • **Strategic Delivery Partner –** The supplier responsible for the deployment of the Mobile Solution to the Force.
Contract requirement	In order to support the deployment of mobile, the Procurement Strategy for Mobile is to adopt the following guiding principles: • Where possible existing Police Scotland contracts will be extended to provide additional services relating to mobile. These include (but are not limited to) device provision, device managed services, data & airtime, and physical infrastructure.

	• Where Scotland does not have a suitable contract already in place the Crown Commercial Service Digital Marketplace will be used. The Digital Marketplace is a pre-competed framework of suppliers who offer services to public sector organisations. Procurement via this framework takes the form of a direct award to a supplier based on a specification focussed search of offerings.
Contract Duration	• The proposed contract length for suppliers to the mobile Programme will not exceed two years. This will provide Police Scotland with the necessary coverage until the Core Operational Solutions project is deployed, at which point Police Scotland will be able to reconsider the value for money proposition of its contracts and to reconsider the approach given that Core Operational Solutions suppliers may be able to provide services which better align with the Core Operational Solutions system.

Integration Platforms

What could we be buying?	Middleware Systems Integration Services
Market considerations	• The market is buoyant in this space with a number of suppliers offering services to the public sector via G-Cloud and other GPS procurement frameworks. Whilst the initial requirement for systems integration services is likely to be relatively low (and therefore at risk of being considered commercially unattractive) the full scope of services within this lot will include ongoing support and maintenance of deployed middleware, refresh of legacy interfaces, data migration and systems decommissioning. • For Middleware, the supply market contains a number of suppliers that can fulfil the requirements of Police Scotland for the activities in question, i.e. Migration, Hosting and Virtualisation. Specific requirements that will limit the market size are the availability of data centres with the ability to fulfil IL3 security level requirements, and the likelihood of a policy decision to locate data centres in close proximity to Scotland.
Contract requirement	There are two options for contracting; firstly adoption of services via an existing framework such as G-Cloud (where a number of SI providers are available) on a requirement by requirement basis, or the selection of an SI of choice to deliver all SI type services to the Programme in a type of 'call off' agreement: • **G-Cloud** – Services are available via G-Cloud to integrate highly complex services across multiple systems using knowledge of government security compliant technologies. • **Framework** – There is no directly applicable framework, however, various frameworks offer system integration as a component part, such as Software Application Solutions and IT Managed Services.
Contract Duration	• The contract term for the SI will depend on the approach taken regarding the use of a framework or 'Call off' agreement. The

	recommendation is for a term of three years with an optional two year extension.

Unified Communications

What could we be buying?	CRM Workflow Case Management
Market considerations	• There are a larger number of COTS providers for Command and Control solutions due to it being a slightly more commoditised offering. The STORM product from Steria dominates the policing landscape given that it is currently in use by 18 UK forces. Other key players include Intergraph (10 forces) and Capita NSPICS (6 forces). The following five vendors have been assessed. o Steria – STORM; o Cassidian; o Northrop Grumman – CommandPoint; o Capita – Control Room Futures; and o Intergraph • All five vendors have a deep knowledge of the Police 'business', and have a significant level of expertise in solution development, delivery and service provision.
Contract requirement	• These projects take place during Transition State 3. Contract requirements will therefore be dependent upon the first two contracts and will be developed upon at a later date.
Contract Duration	

Strategic Support

What could we be buying?	Strategic Partner Legal support Interim resourcing Quality assurance
Market considerations	There are a wide range of providers, including systems integrators, software vendors and professional services organisations. These can provide a mixture of their own teams, sub-contractors and independent resources to fulfil emerging requirements. A key consideration is how closely the partner should be tied to delivering outcomes compared to delivering specific projects. The key routes to market will be an existing Framework (e.g. Bloom, Consultancy Two), or via an EU compliant procurement. Given the large number of suppliers, Police Scotland would need to run a restricted process where a shortlist of suppliers (4 – 5) are invited to formally bid for the work.
Contract requirement	Contracting a delivery partner is likely to require a specific project implementation commercial approach. Police Scotland remain at ultimate risk on delivery of benefits (although some of this can be mitigated through the supplier putting fees at risk) Requires a partnership-led commercial model.

Contract Duration	• The contract would need to be a minimum of 3 years and probably 5 to cover the duration of implementation.

5.7. Contract Management

After the procurement is complete, the procurement team must successfully transition working and workable contracts to the Force's commercial teams for long-term management and control. This includes consideration of the following elements:

- **People.** Ensuring the right people are in place to manage the contract and relationships, that these people have the appropriate level of skill and access to a range of effective tools reflecting best practice.
- **Supplier Relationship Management.** A programme must be in place to manage and develop an ongoing relationship with the supplier.
- **Contract development.** A process for effectively handling changes to the contract is required. This does not simply mean the contractual obligations and timelines, but also proper internal governance and supervision of change.
- **Risk.** There must be a thorough understanding and management of contractual and supplier risk. (e.g. Supplier balance sheet).
- **Performance.** The buyer must ensure that the services are delivered in line with the contract. This means establishing a clear framework for performance management and ensuring regular discussions are held with the supplier on a two way basis.
- **Relationships.** Strong relationships are required to facilitate delivery, including an understanding of the key drivers of the supplier organisation.
- **Governance.** Clear governance is key to speedy and effective decision making. This requires decision makers or delegated authorities to be aware of responsibilities and timescales for approvals.
- **Payment and Performance.** It is critical that suppliers are paid promptly where appropriate (or not paid where delivery has not been successful), and that the right incentives are in place and properly managed.

This transfer of responsibility will be planned and delivered within Transition 1 of the Programme. Where required, enhanced expertise in commercial management will be addressed in the design of the Target Operating Model.

6. Management Case

6.1. Management Case Overview

The Management Case identifies the delivery approach, governance and management controls required to enable delivery of the first 100 days of the TToM delivery. The purpose of the Management Case is to provide detail related to the 'mechanics' of how the Programme will be delivered.

6.2. Programme structure

The end to end phasing of the programme, showing the outline delivery timescales for each project has been captured into a programme roadmap, which is summarised in the diagram below:

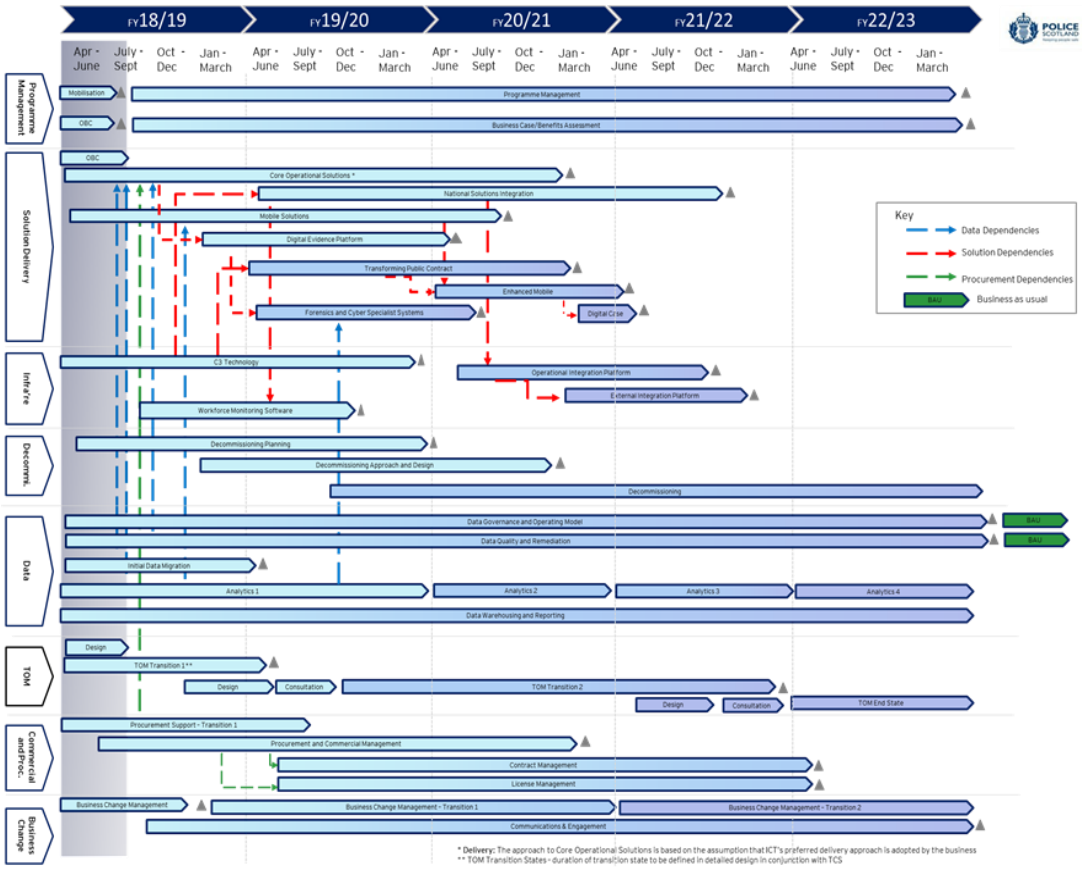


Figure (11): Programme Roadmap

The Programme will adopt a formal programme structure which will establish and mobilise a portfolio of projects within overarching programme controls and governance – the structure of this is shown below:

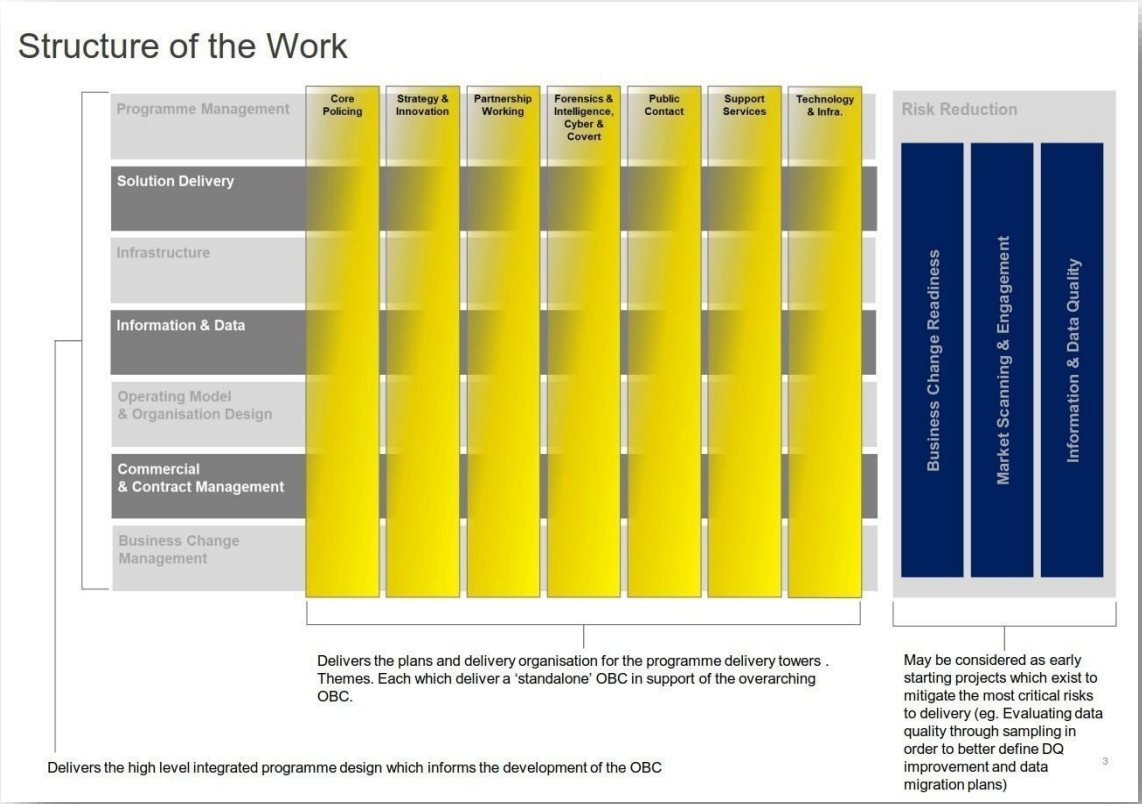


Figure (12): Structure of the Work

Effective delivery results from a prudent combination of a project approach which optimises the delivery of IS solutions (lowest cost, fewest dependencies and overall speed of delivery) with an implementation approach which optimises deployment of solutions within the business environment (acceptable operational risk, least disruption to business operations and maximised business benefits realisation). Many technology enabled programmes will skew the emphasis towards one of these (usually the former)

The diagram shown above illustrates how these may be addressed.

6.3. Governance

Overview

The Programme will be delivered under the responsibility of a Senior Responsible Owner (SRO) and Executive Lead (for the programme).

The SRO is the individual who is ultimately accountable for the outcome of the programme, whilst the Executive Lead provides day to day direction.

The Programme will operate within a defined governance structure with ultimate accountability to the Transformation Board. The key changes from the current model are highlighted in the table below:

Scenario	Key Changes	Considerations for Detailed Design
Setting strategy	**ICT Management** will own the strategy, technology blueprint and architecture. The strategy will reflect Police Scotland's business objectives	• Establishment of clear responsibilities and accountabilities for Transformation & ICT Governance
Managing demand	**Design Authority and Transformation Governance**. The Design Authority will act as the 'gatekeeper' to validate that any proposed changes are designed and delivered in accordance with the agreed strategy and blueprint. The Transformation Governance own the portfolio of change initiatives and will be the governance forum for commissioning any new projects	• Portfolio Management • Enterprise Architecture
Managing delivery	**Product Teams**. The establishment of the product teams aligned to business outcomes will significantly change the current model of delivery. The teams will consist of multi-skilled resources delivering projects or packages of work for the business outcomes	• Common Methodology Set (Agile / Waterfall) • Location of Teams / Ways of Working
Managing service	**Service Integration** – the adoption of Service Integration and Management approach, opening up the potential for alternative service models (e.g. cloud).	• Future skills and capabilities • Introduction of SIAM • Dependencies on solution delivery
Managing governance risk	**Transformation, ICT Functional & Data Governance –** Transformation governance will set the programme of change, ICT functional governance will deliver and accept change products into business as usual and data governance will span across all areas of the business.	• Integration with and adoption of Force governance. Note that changes to Force internal and external governance may be required to

		enable successful delivery
Managing resources and supply	**ICT Management & Resourcing and Product Teams**. A revised resourcing model will be required to coordinate the delivery of 'run' and 'change' activities.	• Vendor and 3rd party management • Resourcing Tools

Table (36): Programme Governance

6.4. Programme Quality

An important aspect of programme governance is the effective management and assurance of quality. The Programme will utilise an approach which incorporates two complementary perspectives: Quality Review and Quality Assurance.

The two terms are often used interchangeably, but should perform distinctly different roles:

- **Quality Review**: Adopts an inspection and review perspective and aims to address the question "Are we doing things right?"
- **Quality Assurance**: Adopts a business outcome led perspective and aims to address the question "Are we doing the right thing?"

Further explanation of the role of each of these is provided below.

Group	Membership	Mode of Operation
Quality Group (QRG) **Accountable to and reports to Programme Director**	Comprises individuals who are experienced in programme delivery. The QRG is responsible for ensuring the programme operates to consistent quality standards and that appropriate review and approval processes are followed.	Provides continual quality review activity and may facilitate the review and approval of key deliverables. May include issue resolution and activity aimed at reducing risk.
Quality Assurance Panel (QAP) **Accountable to SRO / Executive Lead** **Reports to Programme Director**	Comprises independent specialists who have experience of delivering programmes of a similar nature to the Programme. The focus of this group is on delivering the programme outcomes and may include specialists in: Policing Solutions, Data Centre Migration, Organisational Change and Commercial and Procurement Management. Members of the QAP may include individuals	Operates in capacity of 'client friend' and participates in structured walkthroughs and one to one sessions. Typically, the QAP will conduct periodic reviews on a quarterly basis, in advance of major approval points, or as agreed with the SRO.

Table (37): Programme Quality

6.5. Key Stakeholder Groups

Successful delivery of the Programme will be dependent on effective stakeholder engagement. Throughout its lifecycle, the programme will touch and impact on a myriad of different stakeholders across Police Scotland - some as end users of the systems in scope and others as those involved in the running and delivery of Information Services for the organisation. Various external stakeholders will also be interested in and / or impacted by the Programme in some form or other (e.g. partners).

Failure to identify and effectively manage and engage these stakeholders throughout the programme lifecycle could significantly risk successful delivery. Ensuring stakeholders are **identified**, **managed** and **engaged** appropriately delivers a number of benefits, for example:

- Gaining trust, buy in and commitment from staff and minimising resistance;
- Ensuring new technology solutions are fit for purpose and compliant; and
- Ensuring that Police Scotland is ready to receive the new technology solutions.

Phase 1 of the programme will therefore incorporate a comprehensive engagement and communications approach.

6.6. 100 day Plan Overview

A series of 100 day plans have been developed to maintain momentum for the TToM Strategy[12]

On completing the current phase of activity the following principal products will have been developed:

• Vision & Blueprint;

• Roadmap / High Level Plan;

• High Level Architecture;

• Operating Model; and

• Strategic Outline Business Case

In order to proceed with momentum, 100 day plans have also been developed which will set out the activity to be undertaken during the period that approval is sought for investment. The 100 day activity is assumed to commence in May 2018.

On completing the 100 day activity the delivery programme will commence. This means that the following will have been achieved:

- Overarching Programme Plan approved;
- Project initiation activity completed for all Transition One projects;

[12] NB: the costs of developing the OBC are being considered separately to this business case.

- Resources secured to commence Transition One projects;
- Outline Business Case approved with funding secured to deliver Transition One activity; and, optionally
- Risk reduction activity commenced / undertaken.

In order to achieve the outcomes described above it will be necessary to:

- Confirm and baseline Solution and Infrastructure Architectures
- Confirm and baseline Information & Data Architectures and establish the policies, practices and resources to improve and manage the Force's information and data assets;
- Confirm the IT Operating Model and Organisation Design;
- Establish a Commercial & Procurement Plan and conduct early Market Engagement;
- Establish a Business Change Management Strategy, secure a Business Change Network and deliver targeted interventions and communications.

100 day activity will be structured as shown in the diagram above. The 100 day activity will be structured into four stages:

- Initiation;
- Programme Definition;
- Programme Design; and
- Finalisation.

The principal output of the 100 days will be the Outline Business Case. Approval of the Outline Business Case is significant in that it provides the authority to commence formal procurement activity.

The 100 day plans require more than 3,700 days of effort over the period:

	FTE	Effort
Programme Definition		
Programme Management	5.60	353
Solution Delivery	3.00	189
Infrastructure Delivery	2.00	126
Information & Data Management	4.00	252
Operating Model & Organisation Design	4.00	252
Commercial & Contract Management	4.00	252
Business Change Management	4.00	252
		1,676

	FTE	Effort
Delivery Towers / Themes		
Strategy, Performance & Innovation	1.6	101
Core Operational Policing	2.6	164
Partnership Working	1.5	95
Information, Intelligence, Covert & Forensics	2.8	176
Public Contact	1.5	95
Support Services	2.8	176
Technology & Infrastructure	2.8	176
		983
Risk Reduction		
Information & Data Quality	10	630
Market Scanning & Engagement	3	189
Business Change Readiness	4	252
		1,071
Totals		**3,730**

6.7. Risk and Dependencies

The following key risks have been identified for the Programme. The 100 day plan includes activity to further analyse and reduce risks across the programme:

ID	Risk Description	Impact/Effect	Risk Factor Priority (Likelihood x Impact)	Risk Mitigation Plan
R0005	**Internal Capability:** There is a risk that Police Scotland do not have the resources capability within existing ICT function to drive and deliver the change, leading to increased cost to buy in the required capability and or prolonged delivery timescale	The impact of this is that Police Scotland incur additional costs hiring capable full-time or third-party resources.	12	Conduct gap analysis to identify where suitably skilled individuals will be required to support. Agree approach to procuring a partner to support delivery as part of the 100 day plan.
R0008	**Business Change:** There is a risk that the business does not have the capacity to absorb all changes.	The impact of this is delayed deliverables due to requirement to wait for the business to 'catch-up'.	12	Plan activities, quantify resource and identify skill set and capability required. Monitor resource availability/capacity at weekly programme team meetings. Prior to key phases, revisit resource allocation against key workstream activities. Develop a tailored skills and knowledge transfer programme to help Police Scotland move towards a sustainable self-sufficiency model.
R0014	**Legacy Forces:** There is a risk that the legacy arrangements are so disparate that they cannot be standardised	The impact of this is that Police Scotland may undergo further business change in order to achieve the	12	Detailed mapping of current state, gap analysis, and effective programme management to achieve desired end state. Complete a change impact assessment

ID	Risk Description	Impact/Effect	Risk Factor Priority (Likelihood x Impact)	Risk Mitigation Plan
	without significant disruption.	technical outcomes of Policing 2026.		for each area as part of business change activity.
R0025	**Business Change:** There is a risk that Police Scotland deviate from the agreed ICT strategy and roadmap without due consideration for the change impact.	The impact is that Police Scotland do not realise Policing 2026, and fail to recognise associated benefits. Associated risk of ending up further away from desired technical outcomes.	12	Ensure need for deviation from roadmap is thoroughly considered before actioning. Put in place in strong project and ICT governance to manage the pipeline of change.
R0030	**Capability:** There is a risk that the level of Cyber capability in the force is not high enough to progress	The impact of this is that Police Scotland's cyber capability programme doesn't progress from the strategy stage resulting in concern that this limits how effectively the Force can run.	12	Conduct capability assessment and determine need to hire/contract resources with suitable skills.
R0031	**Capability:** There is a risk that the development of cyber and other technologies outpaces Police Scotland's ability to effectively respond.	The impact of this is reputational damage (real or perceived) to Police Scotland due to their inability to solve cybercrime.	12	Conduct capability assessment and determine need to hire/contract resources with suitable skills.
R0036	**GDPR Compliance:** There is a risk that Police Scotland are fined for non-compliance to	The impact of this is that Police Scotland are fined and suffer reputational damage.	16	Preparation of a roadmap that can be presented to Information Commissioner. Decommissioning and GDPR projects established.

ID	Risk Description	Impact/Effect	Risk Factor Priority (Likelihood x Impact)	Risk Mitigation Plan
	GDPR regulation changes.			
R0041	**Capacity:** There is a risk that there isn't the capacity in procurement to run the 20 procurements needed in the first transition period (compounded by the fact that procurement are locked and cannot hire more resources).	The impact of this is that Police Scotland will be unable to procure the right products in the right transition period which will have knock on effects to the next period and will delay overall delivery.	12	Identify gaps in resources and secure as temporary resources and partner support to deliver the requirements during the 100 day plan.
R0043	**Funding:** There is a risk that Police Scotland are incapable of spending the allotted budget within the timeframes provided.	Getting the planning of expenditure wrong means that at the end of the year, the budget will be taken away and Police Scotland will either be delayed or not able to continue the Programme at all.	12	Early engagement with funders to identify issues and strong governance of programme stages to ensure financial commitments are fundable.
R0044	**Capacity:** There is a risk that Police Scotland do not have the resource capacity to deliver on transformation projects and BAU	The impact of this is that delivery of either BAU or transformation projects is delayed.	12	Undertake thorough assessment of current in-flight projects in the pipeline to determine resource availability. Determine support required where the capacity does not currently exist, following a capacity gap analysis. To be completed during 100 day planning.

Table (38): Risk register

7. Appendices

7.1. Spend Overview

Revenue

The annual budget of the ICT service is £52,265k per annum as summarised in the table below. As at the end of quarter 3 of 2017/18, a positive variance of £1,042k is being forecast against budget. This business case will use the budget figure as the baseline position for ICT:

Revenue Position 2017/18[13]	Full Year Budget £'000s	Full Year Forecast £'000s	Full Year Var. £'000s
EXPENDITURE			
POLICE OFFICER OVERTIME	0.40	0.10	0.30
POLICE STAFF COSTS	14,481.50	14,386.40	95.10
OTHER EMPLOYEE COSTS	12.30	11.50	0.80
PREMISES COSTS	467.70	468.80	-1.10
TRANSPORT RELATED COSTS	143.50	125.60	17.90
SUPPLIES & SERVICES	14,275.60	14,195.90	79.70
ICT	17,190.40	16,453.10	737.30
ADMIN COSTS	1,310.70	1,198.30	112.40
THIRD PARTY PAYMENTS	4,393.50	4,393.50	-
CAPITAL FINANCING	-	-	-
TOTAL COSTS	**52,275.60**	**51,233.20**	**1,042.40**
INCOME			
FEES & CHARGES	- 10.40	- 10.40	-
OTHER INCOME	-	-	-
TOTAL INCOME	- 10.40	- 10.40	-
NET REVENUE BUDGET	**52,265.20**	**51,222.80**	**1,042.40**

Table (39): Revenue Position 2017/18

[13] Source: ICT Budget Monthly Monitoring Report January 2018

Capital

Approximately £20.9m of capital has been allocated to projects in 2017/18. The Force is currently forecasting an underspend of £1.591m:

Capital Position 2017/18[14]	Revised Budget £m	Projection £m	Variance £m
APPROVED NON REFORM PROJECTS			
National Cyber Crime Unit	3.60	3.60	-
ICT Modernisation	3.00	3.00	-
Alliance	1.20	1.30	- 0.10
ANPR	1.20	1.20	- 0.00
Airwave Replacement	7.60	5.54	2.06
Minor Approved Business Justification Cases	-	0.40	0.20
TOTAL APPROVED NON REFORM PROJECTS	16.60	15.04	2.16
NON REFORM PRIORITY PROJECTS			
North ACR Reconfiguration - ICT	0.07	0.01	0.06
AFFIRM System Servers	0.04	0.02	0.02
IT Devices to facilitate British Sign Language Interpreting	0.01	0.01	-
Internet Portal	0.01	0.01	-
TOTAL NON REFORM PRIORITY PROJECTS	0.13	0.05	0.08
OTHER NON REFORM CAPITAL SPEND			
Risk Mitigation & Accreditation	-	-	-
Server Refresh	-	-	-
Other ICT (Local/Small Projects)			
- East Area ICT Projects	-	-	-
- Tranman	-	0.03	- 0.03
- Project Unicorn	-	0.17	- 0.17
- Stop and Search	-	0.07	- 0.07
i6 Programme - Idap	-	0.07	- 0.07
C3 Project	-	0.70	- 0.70
TOTAL NON REFORM PRIORITY PROJECTS	-	1.04	- 1.04
CAPITAL REFORM PROJECTS			
National Network	0.40	0.40	-
ADEL	3.20	3.00	0.20
Digital ICCS	0.60	0.40	0.20
TOTAL REFORM PROJECTs	4.20	3.80	0.40
TOTAL Expenditure ICT Projects	20.93	19.93	1.60

Table (40): Capital Position 2017/2018

[14] Source: ICT Budget Monthly Monitoring Report January 2018

7.2. Benefits Schedule

The key anticipated benefits are:

Benefit Description	Category
Reduced staffing costs	First Order
Reduced technology licensing and support costs for legacy applications	First Order
Increased Police Officer mobility	Second Order
Increased Police Officer availability to focus on preventing, solving and reducing crime	Second Order
Greater quality of intelligence accessed and presented more quickly	Second Order
Reduction in costs associated with the property management process	Second Order
Improved quality of data to inform decisions and performance measurement	Second Order
Improve call handling efficiency	Second Order
Reduced infrastructure costs	Second Order
Improved usability	Second Order
Greater flexibility and dynamism to meet business requirements	Second Order
Reduced Supervision	Second Order
Improved and correct deployment of resources to incidents (e.g. mental health incidents or welfare checks where Social Workers rather than Police Officers are more appropriate)	Second Order
Reduced risk of non-compliance with legal requirements surrounding evidence	Second Order
Manage risk of non-compliance with regulatory and statutory requirements e.g. FOI requests, Information Commissioner's Office Audits, public procurement regulations	Second Order
Reduced risk of litigation	Second Order
Better informed resource to support management of incidents and crime investigations	Second & Third Order
Greater options for internal and external collaboration	Second & Third Order
Reduced risk of system failure	Second & Third Order
Increased engagement between the police and the public to help identify, understand and tackle emerging threats	Third Order

Benefit Description	Category
Protected and improved reputation and perception by the public	Third Order
Enhanced customer experience: External & Internal	Third Order
Improved Police Officer and Partner safety	Third Order
Rationalisation of the Force estate	Third Order

Table (41): Benefits schedule

7.3. Optimism Bias Risk Factors

OB risk factors	Risk factor
Procurement	Complexity of Contract Structure
	Late Contractor Involvement in Design
	Poor Contractor Capabilities
	Government Guidelines
	Dispute and Claims Occurred
	Information management
	Other
Project specific	Design Complexity
	Degree of Innovation
	Specific Environmental Impact
	Other (specify)
Client specific	Inadequacy of the Business Case
	Large Number of Stakeholders
	Funding Availability
	Project Management Team
	Poor Project Intelligence
	Other (specify)
Environment	Public Relations
	Site Characteristics
	Environment Permits / Consents / Approvals
	Other (specify)
External influences	Political
	Economic
	Legislation / Regulations
	Technology
	Other (specify)

Table (42): Optimism bias factors

7.4. Key modelling assumptions

Costs have been modelled on a ‘bottom up’ basis, estimating both fixed costs and the cost of resources to deliver the programme. The following assumptions have been made in calculating costs across the various options unless varied in the economic case:

Title	Commentary / rationale	Number	Units
Days per annum	Number of working days per annum	220	Days
Proportion of resources that are officers		40%	%
Proportion of resources that are staff		40%	%
Proportion of resources from partners		20%	%
Day rate for officers	Based on inspector salary and on costs	386.36	£
Day rate for staff	Based on blend of recruits and contractors at average annual cost of 80,000	363.64	£
Day rate for partner		950.00	£
Optimism bias - high	Maximum level of optimism bias per HMT Green Book	220%	%
Optimism bias - low	Minimum level of optimism bias per HMT Green Book	40%	%

Table (43): Key modelling assumptions

Police Scotland Digital, Data & ICT Strategy

SOBC Supporting Deliverable Pack

May 2018

Issue 3 02

Introduction

This document contains in a single location the supporting deliverables for the Strategic Outline Business Case to deliver Police Scotland's Digital, Data & ICT Strategy. The documents were developed between January and March 2018. The project timeline is summarised in pages 2 and the deliverables are listed on page 3.

If viewing electronically, please click on either the deliverable image or name on page 3 to link through to the relevant section in the document.

Please note: The Strategic Outline Business Case and Strategy document are not include in this pack

Engagement Summary – the delivery plan

Utilise relevant reference models

Business outcomes used as means to determine the 'right' model

Capability based assessment of change and impact

Our approach:

Stage 1
What is the right Digital, technology and data strategy for Police Scotland?

Weeks 1 - 4

- Prepare plan and project controls
- Identify & engage stakeholders
- Establish strategic drivers for Digital, Data, and ICT (DD&I)
- Develop Police Scotland Vision Strategy & Blueprint for DD&I
- Develop Police Scotland Digital & Technology Architecture
- Develop Police Scotland Data & Information Architecture

Outputs

1. **S1.1 Strategic Context**
2. **S1.2 Strategic ICT Blueprint**
3. **S1.3 Digital & Technology Architecture**
4. **S1.4 Data & Information Architecture**

Stage 2
What is the case for change?

Weeks 5 – 7

- Determine maturity of ICT capability
- Develop future functional operating model
- Develop Business Case, including:
  - Strategic Case
  - Economic (Options) Case
  - Commercial Case
  - Financial Case
  - Management / Delivery Case

Outputs

1. **S2.1 Strategic Outline Business Case**
2. **S2,2 Capability Maturity Assessment**
3. **S2.3 Functional Operating Model**

Stage 3
What is the right ICT operating model to establish and sustain future ICT?

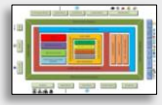
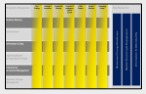
Weeks 8 - 10

- Develop ICT future Concept of Operation
- Develop future capability and selected role definitions
- Develop future Performance Management
- Develop strategic, management and operational governance for ICT
- Develop 100 day plan
- Conduct stakeholder walkthrough

Outputs

1. **S3.1 Future Concept of Operation**
2. **S3.2 Target Operating Model**
3. **S3.3 Future Governance Model**
4. **S3.4 100 day plan**
5. **S3.5 ICT, Data and Digital Strategy**

Deliverable overview – table of contents

Work Products		Overview	Links to Outputs	What it allows you to do
	Vision and Roadmap	Page 13 Summarises the strategic context, the vision for Digital, Data ICT and how it enables Policing 2026	S1.1 Strategic Context S3.5 ICT, Data and Digital Strategy	Provides a means of communication across the force. Identifies the supporting products to match benefits delivery to components of solution. Illustrates the benefits you would accrue from the target outcomes.
	Future Solution Architecture	Pages 4 – 48 A reference model which describes the individual digital and technology components of the solution and how they interact to deliver the end to end solution.	S1.2 Strategic ICT Blueprint S1.3 Digital & Technology Architecture S3.5 ICT, Data and Digital Strategy	Provides a means of identifying any technology gaps in the current solution landscape against future aspirations required to deliver Policing 2026. Provides a reference architecture to support the evaluation and suitability of candidate projects and initiatives.
	Future Information Architecture	Pages 49 - 58 A reference model which describes the individual data and information components of the solution and how they interact to deliver the end to end solution.	S1.4 Data & Information Architecture S3.5 ICT, Data and Digital Strategy	Provides a means of identifying any data and information gaps in the current solution landscape against future aspirations required to deliver Policing 2026. Provides a reference architecture to support the evaluation and suitability of candidate projects and initiatives
	Organising for Delivery	Pages 59 - 89 A framework for organising and coordinating the delivery of 100 day plans and the longer term programme of change	S2.3 Functional Operating Model S3.4 100 day plan	Provides a means for communicating how the programme of change can be structured and the interdependencies across projects.
	Candidate Portfolio of Projects	Pages 90 - 129 A description of the projects required to address the gap from current to future state	S3.4 100 day plan	Communicate the scope of the change, identify the required resource, timescale and impact of the change across the business
	Critical Capabilities	Pages 130 - 134 Analysis on the critical operational capabilities that will be required to support the vision and future solution architecture	S2.2 Capability Maturity Assessment	Inform the design of future mode of operations based on a assessment of the capabilities that Police Scotland consider important. Provides data points to estimate the length of time to achieve the desired capability level
	Mode of Operations	Pages 135 - 141 Provides a conceptual model of the organisation could operate to deliver the programme of change and manage existing technology requirements	S3.1 Future Concept of Operation S3.2 Target Operating Model	Develop the capabilities required to deliver the change and align to the appropriate governance
	A Case for Change	Separate Document A 5 case business case document that sets out the rational for change, the options available and the associated investment, risk and delivery options	S1.1 Strategic Context S2.1 Strategic Outline Business Case S3.3 Future Governance Model	Assess the options available and make a decision based on an informed view of options.

Police Scotland Digital, Data & ICT Strategy

29-Mar-2018

Version and Change History

Version	Date	Comments
1.01 – 1 03	March 18	Initial draft
2 00	23rd March 2018	Issue to Steering Group
2 01	29th March 2018	Update following comments from Steering Group

Contents

1. Introduction

This Digital, Data & ICT Strategy document and Roadmap have been developed as part of a 10 week project to develop the future Digital Strategy, Strategic Outline Business Case (SOBC), and ICT Target Operating Model for Police Scotland.

The high level architecture has been prepared based on an architectural capability reference model/blueprint, and is intended to establish a set of solution capabilities required to deliver the strategic objectives of Police Scotland, including a portfolio of candidate projects to determine the most appropriate Roadmap for ICT.

Our approach was to establish the baseline reference architecture, understand organisational priorities, review the existing projects and implementation plans, and create a strategic Roadmap for the next five years.

Strategic Context

The strategic context for Police Scotland's Digital, Data and ICT future state is influenced by three primary factors: a need to align DD&I to the Strategic Outcomes set out by Policing 2026; a need to address the consequences of an ageing and fragmented IT Estate; and a need to establish and sustain the professional capabilities which will enable Police Scotland to maintain Digital Solutions which continually match the changing needs of the Force.

- Current IT infrastructure, applications, and ways of working are unlikely to support Police Scotland to deliver on Policing 2026;
- Policing 2026 requires the deployment of significantly enhanced technology and capabilities to deliver the long term ambitions of Police Scotland;
- Existing technology, ways of working, and ICT support need fundamental change to enable Police Scotland to deliver its financial commitment to a balanced budget by 2020/21;
- As a result, the TOM Strategy proposes a range of projects to achieve a simplified and standardised Digital Solutions, Data & Information and Technology landscape which enable the outcomes of Policing 2026 to be achieved
- The future portfolio of projects could deliver a range of benefits (first, second, third) for staff, officers, partners and organisation-wide; but
- These are subject to a range of strategic constraints and risks which need to be addressed in planning for the future.

To support this, Policing 2026 identifies a number of potential investments in information and technology:

- "We will develop the national technology infrastructure and identify partnership opportunities for shared investment to improve services and enable our people to operate more effectively.
- We will introduce technology to enable workforce efficiency and use analytics, better data quality and wider sources to improve decision making, particularly on the front line.
- We will invest in connectivity and mobility for real time decisions and to enable this, we will shift the culture to create a technically enabled workforce."

Target Outcomes

The outcomes of the future strategy for Digital, Data & ICT must be set in the context of Police Scotland's stated aims:

Desired Outcomes	Implications
1. Secure simplified and standardised National ICT infrastructure which satisfies legal, regulatory and compliance requirements of Police Scotland	Outcomes and benefits led with prioritisation of investment optimised to achieve acceptable combination of value, risk, and cost
2. Deploy and sustain Digital Solutions which make available access to reliable and consistent data and information which enables Police Scotland and its partners to work more effectively in safeguarding citizens of Scotland	Establishment of National Solutions and reductions in 'local' and legacy solutions synchronised and achieved in parallel
3. Establish and continually evolve Digital Solutions which enable citizens to interact more effectively with Police Scotland thus enhancing public trust and confidence	Portfolio of investment established in the context of the needs of Policing 2026 and stringently managed throughout its delivery
4. Implement Digital Solutions in the context of national changes in operating practice which enable the establishment of standardised practices (where appropriate), and prioritise the deployment of these solutions in accordance with Policing needs	Capability and capacity identified secured (most likely through a combination of in-house and third party resources)
5. Develop a Business Case which sets out the options available and costs, risks and benefits of moving from current state to future state	Capability and capacity to sustain deployed solutions established during the period of implementation and maintained through revised operating model (ICT and Operational)

Strategic Approach

The underlying approach to delivering enhanced capability through Digital Solutions, Data & Information and Technology will require effective prioritisation and managed implementation, with equal consideration of deliverability and the ability of the Force to absorb change.

	Transition 1	Transition 2	Transition 3
Capabilities Delivered	1. Establishes core capabilities in supporting improved front line operational efficiency providing opportunities to realise financial savings 2. Establishes foundational capability for improved partner collaboration and enhanced interaction with citizens 3. Legal and regulatory compliance	1. Extends capabilities enabling improvement in front line productivity and reductions in middle office support extending opportunities to realise financial savings 2. Establishes capability for more effective management and utilisation of Intelligence including enhanced mining and analysis and use of complex data sets	1. Continual refinement and operational efficiency 2. Partnership Working 3. External integration platform 4. Further decommissioning
Potential Data and IT System Impact	1. Core operational systems and deployment of mobile technology to the front line 2. Harmonisation and standardisation of operational data 3. Tactical integration of core systems 4. Reduction and decommissioning of local systems	1. Enhanced mobile capability reducing dependencies on operational middle office 2. Close integration with 'whole of Justice system' 3. Establishment of Force wide data asset management and governance	1. Decommissioning of non-core/local systems 2. Eradication of 'shadow IT' 3. Adoption of ongoing Agile delivery and deployment 4. Operating Model configured to business as usual / ongoing needs of the Force

Early Wins and Risk Reduction – Mobile Technology / Analytics / Information Integration / Automation

Value & benefits realisation | **Cost, value for money and affordability** | **Reputational, financial and operational risk** | **Staffing impact and capacity for change**

Delivery management and governance persists throughout

Design Principles

Our aim will be to simplify and standardise the Digital, Data & ICT assets that we utilise to support all aspects of Policing. This will support outcomes relating to efficiency but will also provide better access to data and tools which will improve the interaction that communities and public will have with Police Scotland.
We will also seek to adopt industry standard solutions where appropriate, unless there is a compelling reason not to.

We will adopt leading practices and provide opportunities for our staff to follow professional career paths. We will blend efficient operation of legacy ICT estate (while it continues to exist) and Agile delivery which will enable solutions to be delivered and evolved at pace.
Our organisational capability (which may include third parties as well as internal staff) will be designed to fulfil Police Scotland's needs for rapid adoption of technology and will provide access to the right skills and expertise when required.

We will become expert in managing and exploiting our data and information assets. In doing so, we will develop a better understanding of the services we deliver to communities and the public and also of the factors which determine our own performance as a Police Force. We anticipate that data and information will play an increasingly important role in enabling Police Scotland to direct Policing operations.`

We will provide the capability to integrate our core systems where there is benefit to do so. This will improve efficiency, enable more effective response and also enable us to work in collaboration with partner organisations. Our approach to integration may comprise both tactical and strategic solutions depending upon the priorities of the outcomes we are seeking to achieve.

We will adopt a service led approach to the delivery of Digital Solutions, taking account of the needs of law enforcement stakeholders and other partner organisations.
We will seek to adopt, adapt and re-use solutions developed within Policing and by our partner organisations.
We will also provide solutions and tools which enable Officers and Staff to respond most effectively to evolving forms of crime (such as Cyber).

We will adopt a portfolio based approach to prioritising, scheduling and delivering our investments in Digital, Data and ICT. Our investment decisions will be based upon a balance of value, cost and risk (not necessarily lowest price) and the decision criteria will be determined by Policing 2026.

2. ICT Roadmap Overview Placemat

Strategic Approach

ICT Strategic Roadmap

ICT Strategic Outcomes

Home

Improve public contact, engagement and service

Strengthen effective partnerships

Empower, enable and develop our people

Invest in our use of information and technology

Enhance Cyber & Forensic capabilities

Transform corporate support services

Transition State 2 – We will focus activities on Transforming Public Contact, and LAP. We will decommission our legacy estate and improve our overall compliance position, and enable an agile approach to change management.

Transitions

Transition State 1 - We will focus on increasing efficiency and improving capabilities supporting operational services, creating capacity to change the way PS works, and improve services

Transition State 3 - We will integrate with our partners, and adopt specialised automated intelligence solutions.

Solution Delivery

Expand partnership working capabilities to include public sector organisations, communities and other groups. Establish new automated intelligence capabilities to improve service delivery.

Deliver new C3 capabilities and Transform Our Public Contact, plus establish new digital channels for the public to contact PS and self serve. Establish new digital CJ partnership information sharing capabilities.

Create a single source of truth with new Centralised core operational solutions, and enable digital policing by mobilising front line officers.

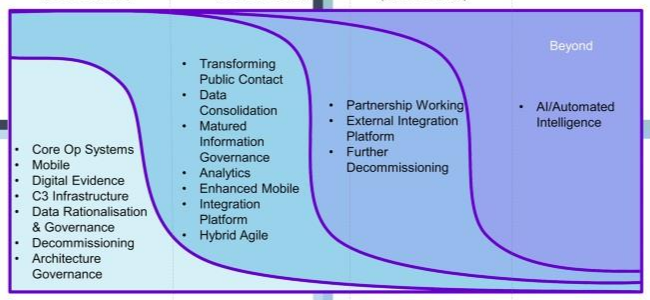
Solution delivery defines ICT's ability to both support the business in IT enabled transformation, and maintain core business activities through normal incremental change and BAU projects.

Infrastructure Delivery

Legacy Rationalisation & Decommissioning will run continuously with a dedicated focus on removing legacy infrastructure and solutions to improve commercial, resource, and compliance position.

Infrastructure delivery includes the core network and supporting systems which enable end user solutions to operate. This includes Networks, Communications, Hardware, and back end solutions for managing devices and exchanging information internally and externally.

Network Modernisation & Standardisation will be a critical component for many of PS strategic objectives. This project will underpin COS, Digital Evidence, Transforming Public Contact, Mobile, & BWV.



Data & Information

Data and Information maturity assessments will be carried out, alongside establishing Data Governance and GDPR compliance – procurement of items such as EDW should also commence

Full mapping, documentation and quality review of key data items (Master Data Index) across the Police Scotland estate – as well as migration into EDW

The 5 year plan for Data and Information will improve the way that Police Scotland: Define, Produce, Consume and Govern Data and Information.

Key data outputs, reporting and Analytical capability will be enhanced once data foundations have been established

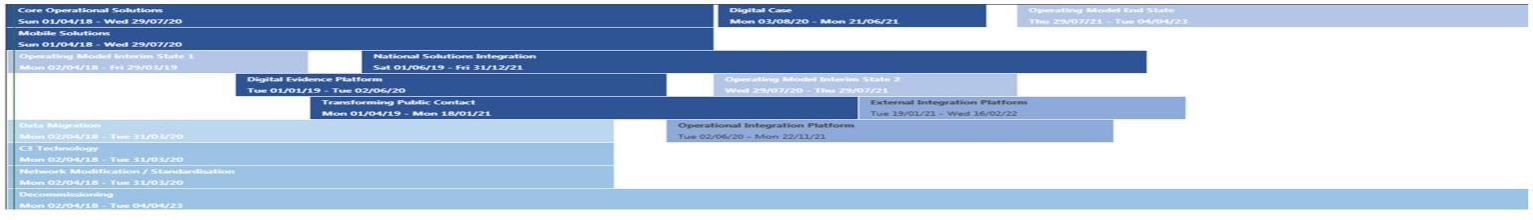
Organisation & Governance

Target End State TTOM

Establishment of a revised operating model for ICT to both run & change the business. This includes programme wide transformational governance, design authority, and core capabilities (eg Enterprise Architecture), associated PMO functions, and significant business change activities to deliver and track business benefits against policing 2026

TTOM Blueprint & Detailed Design

Transition 1 Operating Model & Business Change Programme



We will reduce the cost and effort of maintaining our fragmented legacy landscape, through decommissioning and rationalisation, releasing ICT resources, and improving our compliance profile, plus increasing our capacity to support the business in IT enabled transformation.

We will implement a single National Core Operational Solution, providing a single source of truth for all operational resources, enabling the operational efficiencies required to support the strategic operational objectives of Police Scotland.

We will uplift our existing mobile estate & roll out mobile devices to all front line operational officers, significantly reducing the number of unnecessary journeys and eliminating re-keying.

We will create new digital contact channels & self service capabilities for the general public

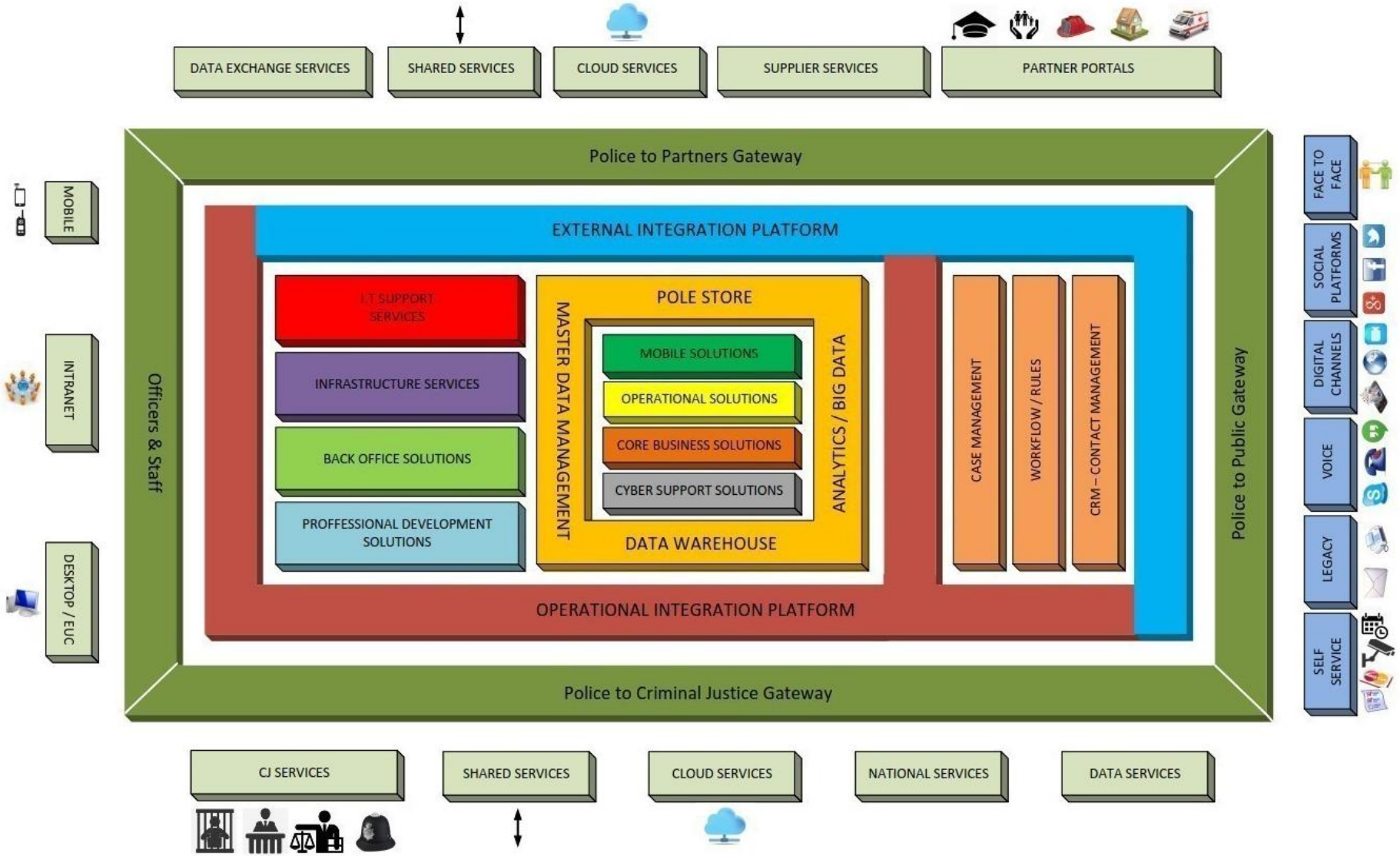
We will adopt an Enterprise Architecture approach to change management, and increase our maturity in innovation management, portfolio & strategic planning, and information management.

Our legacy data estate will be rationalised and robust data governance will be introduced to improve the quality of our data, and improve our overall data & information compliance profile.

3. Reference Architecture

Reference Architecture – Overview

The reference architecture model/blueprint highlights the typical solution capabilities required to deliver a flexible platform to underpin and enable Policing 2026. It underpins the Target Operating Model Design Principles and provides an easily understandable framework of the key solution capabilities to deliver services to: Officers and Staff, Partner Agencies, Citizens, and Criminal Justice Partners.



Reference Model Context

An integrated architectural blueprint focused on mobile and operational systems, high quality data, and flexible standards-based integration

- Mobile, operational systems, and data/information are placed at the heart of the landscape with an Service Oriented Architecture (SOA) based integration approach to enable collaboration across different solutions.
- Deliver capabilities to new digital consumers (e.g. partners or citizens) which are traditionally only surfaced in silos (e.g. back office, operational policing).

Clearly enable Policing 2026 Outcomes

- Each capability in the model should support, enable, or align to the strategic objectives of Policing 2026.
- Reference model should be used to validate future ICT initiatives against the accepted architectural blueprint and a clear roadmap to delivery.

The technical thinking required to design and deliver to this strategic blueprint has essentially already been undertaken by ICT and is mainly well-considered and in line with leading practice. However, the organisation has failed to approve the approach and agree a model, and therefore all ICT initiatives are currently progressing at risk of not aligning with the long term technical architectural strategy required to support the strategic objectives of Police Scotland.

I.T. Support Services
This covers solutions providing core help desk and user support services to the organisation

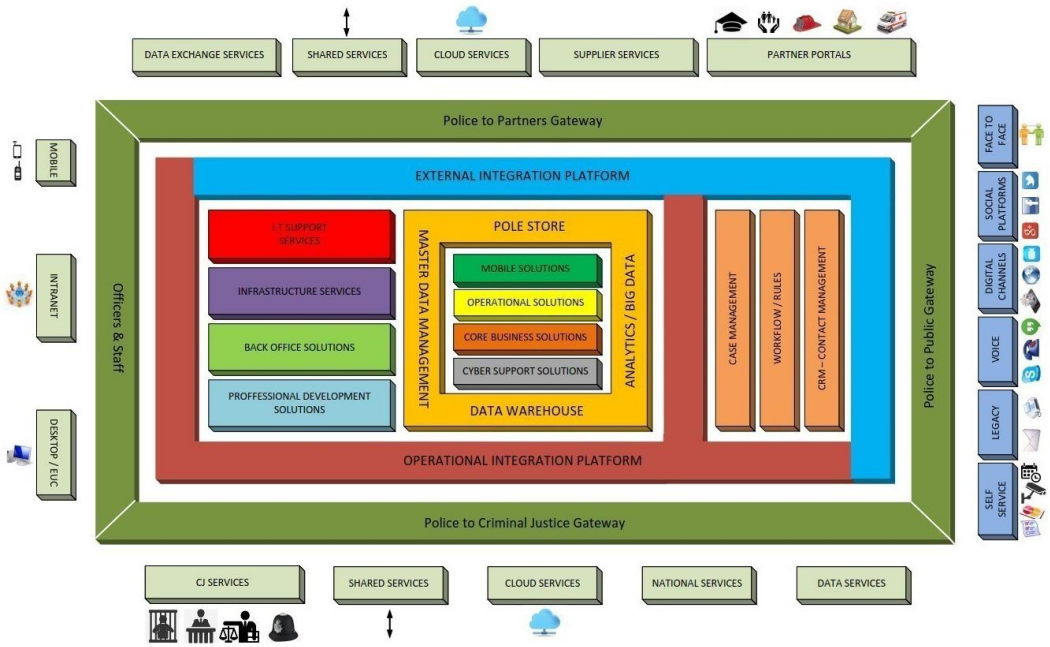
Infrastructure Services
Solutions and services providing connectivity and networking through to server and other hardware monitoring and configuration services (e.g. Active Directory)

Back Office Solutions
These solutions typically cover HR, Finance etc., and may also include other productivity tools.

Professional Development Solutions
Training, work force planning, and other solutions designed to support staff and officers in their learning and compliance obligations.

Solution Capability View

External Integration platform
Enables integration with partner agencies, suppliers, and citizens to digitally share information and services whom are not operating on the existing secure network topology.



Operational Integration Platform
Enables the operational solutions to be integrated together using SOA principles, removing duplication/re-keying, and improving overall organisational data quality and integrity.

Operational Data & Information Services
Provides an operational single source of the truth (P.O.L.E Store), Master Data Management, Data Warehousing, and analytical and reporting capabilities.

Mobile Solutions
Includes device management solutions, productivity applications, and operational applications, plus BWV and future ESN convergence.

CRM / Workflow / Shared Case Management
Solutions that enable PS to share and work together resolving issues, and engage with partners, citizens and communities in new ways.

Cyber Solutions
Core services and solutions to support Cyber investigations.

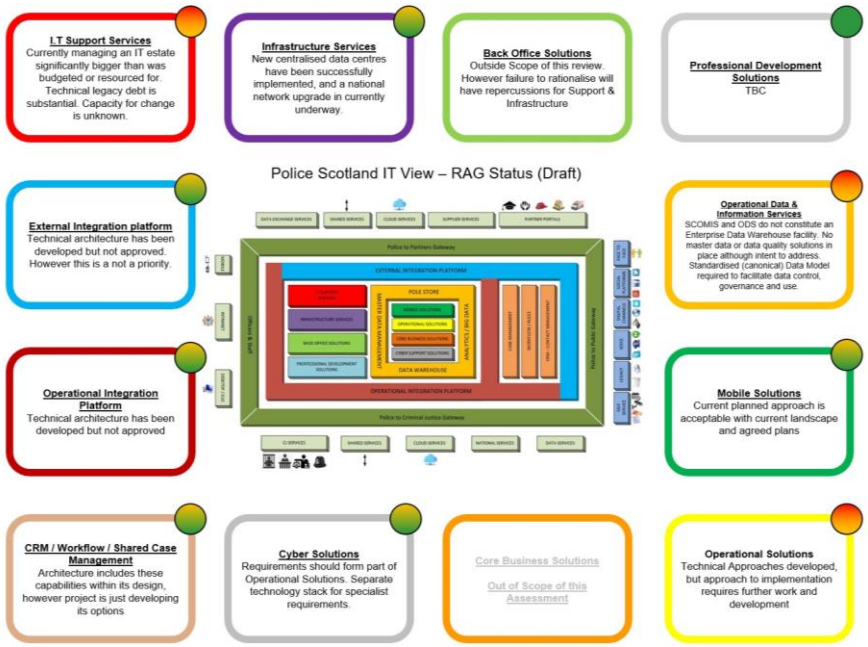
Core Business Solutions
Includes typical productivity solutions (e.g. Office, Email and Messaging).

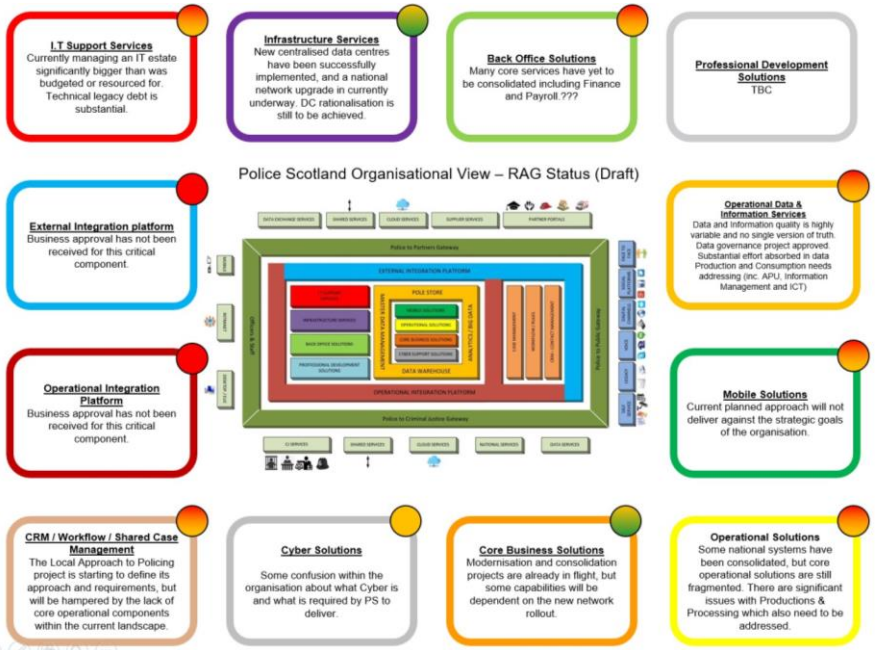
Operational Solutions
Command & Control, Crime, Intelligence, Case, Custody, National Solutions, and more.

Current State Assessment against Reference Architecture

The following two pages provide a high level RAG assessment of the whole of Police Scotland's organisational alignment with the Reference Architecture, and a secondary RAG assessment of current ICT projects and plans.

The assessment demonstrates that from a technological ICT perspective, much of the critical thinking has been undertaken, however this strategy and planning has not been accepted within the wider organisation which is hampering both PS and ICT's ability to deliver against the Strategic Objectives set out in the 2026 Strategy.





I.T Support Services
Currently managing an IT estate significantly bigger than was budgeted or resourced for. Technical legacy debt is substantial.

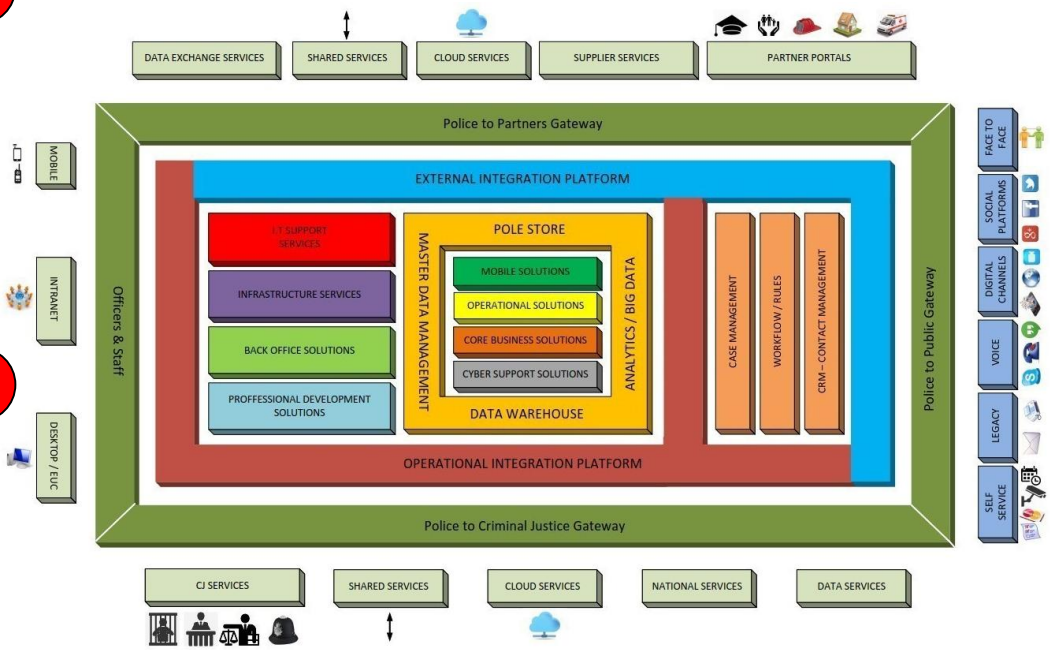
Infrastructure Services
New centralised data centres (DC) have been successfully implemented, and a national network upgrade in currently underway. DC rationalisation is still to be achieved.

Back Office Solutions
Many core services have yet to be consolidated including Finance and Payroll. (?)

Professional Development Solutions
No identified plans (out of scope.)

Police Scotland Organisational View – RAG Status

External Integration platform
Not defined with business and therefore approval has not been received for this critical component.



Operational Data & Information Services
Data and Information quality is highly variable and no single version of truth exists. Data governance project approved. Substantial effort absorbed in addressing data production and consumption needs (inc. APU, Information Management and ICT).

Operational Integration Platform
Not defined with business and therefore approval has not been received for this critical component.

Mobile Solutions
Current approach is preceding ahead of plans to address the Core Operational System.

CRM / Workflow / Shared Case Management
The Local Approach to Policing project is starting to define its approach and requirements, but will be hampered by the lack of core operational components within the current landscape.

Cyber Solutions
Some confusion within the organisation about how to define Cyber, and what is required by PS to deliver.

Core Business Solutions
Modernisation and consolidation projects are already in flight, but some capabilities will be dependent on the new network rollout.

Operational Solutions
Some national systems have been consolidated, but Core Operational Solutions are still fragmented. There are significant issues with Productions and Processing which also need to be addressed.

Police Scotland IT View – RAG Status (Draft)

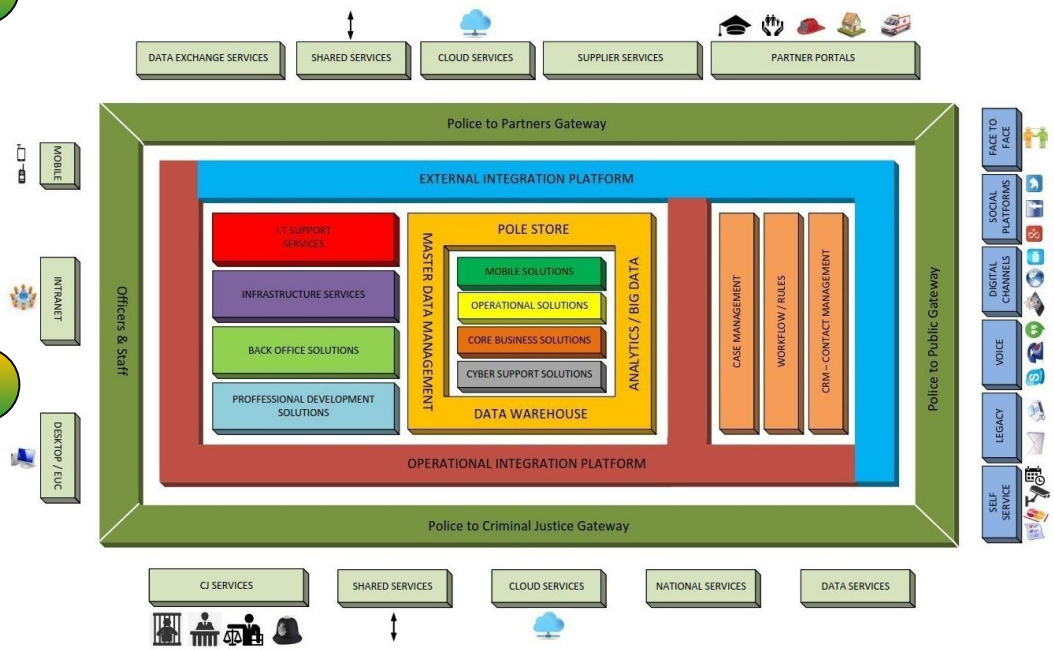
I.T Support Services
Currently managing an IT estate significantly bigger than was budgeted or resourced for. Technical legacy debt is substantial. Capacity for change is unknown.

Infrastructure Services
New centralised data centres have been successfully implemented, and a national network upgrade in currently underway.

Back Office Solutions
Outside scope of this review. However failure to rationalise will have repercussions for Support and Infrastructure

Professional Development Solutions
No Identified plans (out of scope).

External Integration platform
Technical architecture has been developed but not approved. However this is a not a priority.



Operational Data & Information Services
SCOMIS and ODS do not constitute an Enterprise Data Warehouse facility. No master data or data quality solutions in place although intent to address. Standardised (canonical) Data Model required to facilitate data control, governance and use.

Operational Integration Platform
Technical architecture has been developed but not approved

Mobile Solutions
Current planned approach is acceptable with current landscape and agreed budget/plans.

CRM / Workflow / Shared Case Management
Architecture includes these capabilities within its design, however project is just developing its options

Cyber Solutions
Requirements should form part of Operational Solutions. Separate technology stack for specialist requirements.

Core Business Solutions

Out of Scope of this Assessment

Operational Solutions
Technical Approaches developed, but approach to implementation requires further work and development

Key Architecture Principle – Service Oriented Architecture

The architectural model is aligned around the concept of Service Oriented Architecture (SOA). SOA is an architecture paradigm which fulfils the need for a universal solution to build, integrate systems, applications and processes.

A service, from a SOA perspective, is a distinct, well-defined, piece of business functionality, for example, collecting a witness statement, or creating a crime. SOA-compliant applications can present all their core functionality as a collection of "services". Utilising applications that can do this means that the services can be used as building blocks to create end-to-end business processes. This approach is critical for digital policing and citizen engagement/self service.

Moving to SOA can be challenge for an organisation as it involves a perception shift away from thinking about applications in silos with IT and the business operating independently. SOA requires the organisation to think in terms of end-to-end business processes with IT being the facilitator for providing the distinct pieces of business functionality, but the complexity of underlying implementation is hidden from the User.

The benefits of a service based architecture is that is allows organisations to be become more agile and respond quickly to new business initiatives. SOA implementations also help drive cost reductions because they allow reuse of services which subsequently also introduce efficiency savings.

4. Reference Architecture Review

Reviewing the Reference Model

- The following pages outline the reference architecture, highlighting the current state and desired future state.
- This is done with consideration to deployment and sustainability and phasing considerations, as well as reference to the operating mode, and alignment with 2026 strategic goals.
- Candidate and key projects are highlighted based on their enablement of specific Policing 2026 objectives.

IT Support Services

Reference Architecture

Solutions providing core help desk and user support services to the organisation

Current Position (including inflight plans)

- Currently managing an IT Estate significantly bigger than was budgeted or resourced for. Technical legacy debt is substantial.
- No plans seen to address future capability gap, or to address the lack of understanding around current capacity (it should be noted this is a department wide issue, not just Support Services).

Future State

- Consideration needs to be given around how the current capabilities will meet the needs of the organisation (e.g. mobile support service).
- Solutions utilised to deliver support should not require specialist functionality, and can be implemented in line with organisational maturity.

Deployment & Sustainability Considerations

Regular retraining of staff likely to be required to maintain support capabilities in line with new technologies.

Operating Model Considerations

Existing team needs to be sustained, but will require retraining as legacy technology debt is reduced and new solutions are brought online.

Phasing Considerations

Continual in line with requirements of the organisation. Impact on support should be intrinsic to any future initiative impacted by ICT.

Strategic Alignment to 2026

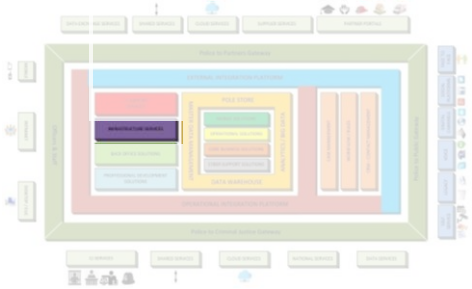
- Introduction of new solutions supports reduction in legacy ICT estate which is currently larger than Police Scotland can manage.
- IT Support Services underpin Police Scotland successfully engaging in the public and private space through appropriate solutions.
- Enables Police Scotland's transformation of their contact and resolution model.
- Supports solutions that enable transformation of current infrastructure.

Project Alignment

- SD7 (ICT26, ICT29, ICT18, ICT21, ICT22, ICT48, ICT54, ICT55, ICT80, ICT37, ICT32, ICT06, ICT39, ICT17, ICT57, ICT59, ICT74, ICT89, ICT95, ICT78, ICT92, ICT98)

Key Projects

Infrastructure Services



Reference Architecture

Solutions and services providing connectivity, communications, and networking through to server and other hardware monitoring and configuration services (e.g. Active Directory)

Current Position (including inflight plans)

- Programmes are already in flight to uplift the current wide area network appear to be fit for purpose in a digital policing environment. Many new initiatives will be dependent on this new infrastructure.
- New centralised data centres have been implemented, but whilst many consolidation activities have been completed there still exists a large distributed legacy infrastructure across the old operational regions. This has resulted in an unplanned increase in work, and prevents the organisation from decommissioning and gaining all the benefit from implementing the new DC's.
- National ICCS project is critical in releasing communication channel flexibility.

Future State

- The organisation will require an ever increasing capacity to move and store data over its infrastructure, this will require regular investments to keep up with the pace of change.
- The upgrade to a new Digital ICCS capability will be critical in enabling the organisations ability to be flexible in its communications channels, and support the CAM aspect of the LAP initiative

Deployment & Sustainability Considerations

The current network upgrade timescales are constrained by vendors ability to deliver the infrastructure.

Procurement timescales and options for key initiatives (National ICCS) have significant impact on deployment timescales

Operating Model Considerations

Consideration to wider policing Operating Model and introduction of LAP requires key infrastructure services to be available

Phasing Consideration

The implementation of the new network will constrain the sequencing of other initiatives as many strategic initiatives will be dependant on its availability.

Strategic Alignment to 2026

- Transition to wholly national data centres, rather than drawing on data stored in legacy infrastructure, supports achievement of Police Scotland's desire to improve the data 'pushed' to staff and officers.
- A core objective of Policing 2026 is sharing data and insight with partner organisations, which is supported through updated infrastructure.
- As part of a the enhanced infrastructure services, Police Scotland are committed to reducing data inaccuracies.
- Deployment of mobile devices to increase operational efficiency is central to Policing 2026, updated infrastructure services for use of national communication channels enables this.
- Real-time decision making as part of frontline policing is enabled by updated infrastructure services.
- Body-worn video is a potential mobile solution that will be deployed by Police Scotland, with its functionality enabled by improved infrastructure services.

Project Alignment

- Inf5 (ICT50, ICT58, ICT20, ICT62, ICT63, ICT64, ICT81)
- Inf1 (ICT87)

Key Projects

- ICT50 – Core Tech Refresh
- ICT87 – National ICCS

Professional Development Solutions – Out of Scope

Overview

Training, work force planning, and other solutions designed to support staff and officers in their learning and compliance obligations.

Current Position (including inflight plans)

- No in flight project / plans have been identified.

Future State

- To create a continual professionally developing workforce in line with work force planning outcomes. This will be required to create a highly skilled agile workforce able to meet the changing demands on PS.
- To provide officers and staff clear guidance and streamlined compliance and governance controls, which are well understand and can be flexibly implemented across the organisation.

Deployment & Sustainability

N/A

Operating Model

N/A

Phasing

Independent of core operational policing solutions.

Strategic Alignment to 2026

- Development of skills, tools, capacity to address future needs of Scotland.
- Supports Police Scotland successfully recognising efficiencies to be gained from deployment of technology used to prevent and investigate crime.
- Training to support understanding of insights drawn from data will improve effectiveness of real-time decision making.
- Understanding of partner organisations data which Police Scotland hope to be able to access and use more effectively as part of Policing 2026.
- Improved general Policing training as well as training specifically tailored to digital solutions.
- Scaling of cyber capabilities to respond to crimes of this nature requires specialist technical skills.
- Training enables Police Scotland staff and officers to work confidently and effectively across the public, private, and virtual space – in response to changing community definitions.
- Development and scaling of tools used to investigate and combat crimes committed using secure encryption, 3D printing for criminal intent, and online serious and organised crime.
- Deployment of mobile solutions to allow the workforce to be more flexible.
- Development of a national technology infrastructure and capacity to deliver the skills and tools required to deploy Policing 2026 technical solutions.
- Understanding and use of scaled forensics solutions, such as mobile devices linked to National Biometric Database.

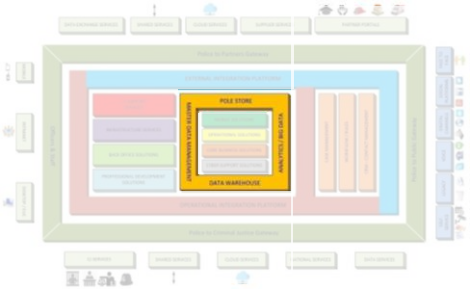
Project Alignment

- Data2
- Data3 (ICT65)

Key Projects

- Data2 – GDPR Compliance related training

Operational Data & Information Services



Overview

Provides an operational single source of the truth (P.O.L.E Store), Master Data Management (MDM), Data Warehousing, and analytical and reporting capabilities to underpin insight delivery and facilitate SOA-based backbone/foundation.

Current Position (including inflight plans)

- Data and information availability and quality is inconsistent, compromising trust, efficiency and value of new data and analytics related initiatives
- No consolidated picture of data consumption / demand - including Information Management, APU - or impact on delivery capacity.
- Operational Data Solution (ODS) does not provide an enterprise data warehouse (EDW) capability.
- Reporting platform (SCOMIS) un-supported by end 2018. 'Upgrade' (reimplementation), or replacement decision required imminently to enable continued service provision.
- Anecdotal evidence of 'cottage industry' reporting/analytics production including significant spreadsheet use.
- Existing data/information governance driven in application (functional) silos.

Future State

- Clear data quality standard that is rigorously enforced against both data migrated into and created in the new solution.
- MDM underpins define/manage data objects definition and management in an application-agnostic manner to provision accurate, complete, and consistent data which underpins reporting, analytics, SOA-based integration and POLE requirements.
- GDPR and other legislative/regulatory compliance elements should be integrated into broader data governance capability to drive costed initiatives to address compliance and reputation.
- Self-service reporting/analytics capability to release ICT resource pressure and enable more proactive Force engagement.

Deployment & Sustainability

Data governance and management should be an enduring capability for the organisation and is a critical enabler.
In scope data quality standards will be defined and agreed by the business. Data which does not meet the minimum data quality standard will not be migrated into the new solutions. Only 'live' data will be migrated. Collection, access, retention, and processing of data must comply with applicable regulatory provisions. Data no longer required (e.g. outwith legal retention boundaries) will be deleted.

Operating Model

Focus on how data is consumed, produced, and governed across the Organisation to drive insight, confidence and value.
Data will be owned and governed by the business and enabled by ICT. Joint governance arrangements will be critical to success.
Demand will be consolidated and integrated into data 'factory' production capability.

Phasing

Short term: Master Data Index and associated quality focused on target POLE (e.g. nominal and address in target COS format) and federated search (ODS). Initial COS solution may provide interim 'MDM' solution (subject to data creation points). Initial EDW to cover 'basic' SCOMIS reporting. Medium-Long term: Application-agnostic MDM. EDW to enable self service and underpin analytics capabilities including visualisation.

Strategic Alignment to 2026

- Police Scotland are transforming the way that people can contact them – part of this initial contact involves properly collecting POLE store data that can be actioned.
- Reduction in data inaccuracies via defined information management practices.
- Policing 2026 outlines Police Scotland's duty to share knowledge and insight with partners and government – clear data standards will enable effective sharing.
- Accurate operational data enables a more efficient and effective workforce.
- Accurate legislative reporting on crime and performance statistics.
- Realisation of Police Scotland's 2026 objective of being an organisation driven by effective and efficient use of data.
- A clear data standard delivers enhanced analytics aligned to real-time decision making, early intervention, and preventative policing.
- Increased community resilience as a result of services tailored to needs based on data.
- Facilitates use of mobile devices, as access to reliable data is core to this solution,

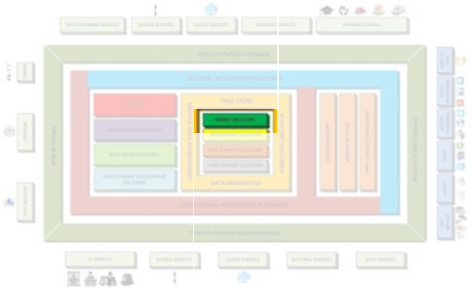
Project Alignment

- DCOM (ICT73)
- Data3 (ICT65), Data5, Data8, Data9 (ITC30, ICT66)

Key Projects

- ICT65 – Master Data Management

Mobile Solutions



Current Position (including inflight plans)

- The currently deployed solutions are not suitably aligned to the strategic objectives.
- The currently articulated business case, sets out a short term approach which is not dependent on new core operational capabilities.
- This approach is acceptable in the absence of an agreed strategic COS approach and overall technical blueprint. However the benefits expressed in the IBC will not be consistent across regions, and further consideration should be given to the planned application release phasing.

Overview

Includes device management solutions, productivity applications and operational applications, plus Body Worn Video (BWV) and future Emergency Services Network (ESN) convergence.

Future State

- The PS strategy is dependant on applications which place operational systems into the hands of officers, therefore the approach to mobile will be considered as an intrinsic part of the overall approach to COS.
- The mobile platform will be specified in line with SOA principles to reduce risk of early obsolescence.
- Mobile devices will become the primary digital tool for front line operational officers, and their gateway into Police Scotland systems.

Deployment & Sustainability Considerations

If the preferred implementation approach for COS is achievable and timescales align, the approach to mobile deployment should also follow a similar staggered sequence, in advance of the COS rollout. This approach would reduce the COS abstraction and business change overhead significantly, because the focus of officer training would be directed through mobile, as this will be their primary interface to the new COS capabilities – effectively minimizing the training burden.

Operating Model Considerations

Significant implications for ICT and operational staff. From an ICT perspective this will likely require an extension of capabilities across a number of areas; application perspective - mobile design; development and deployment; security design and service management; technology refresh; and support.

Phasing Considerations

The timescales involved in the optimal COS implementation approach may span multiple years.
If mobile capability is to be deployed prior to COS, capacity to deliver must be taken into consideration, as it will require internal ICT resources to meet its goals.

Strategic Alignment to 2026

- Flexible deployment of workforce due to enhanced mobility and greater digital capability.
- Reduction in duplication of work through deployment of solutions such as body-worn video (BWV).
- Greater self-service.
- Realisation of workforce efficiency as a result of access to real-time data and analytics.
- Live alerts to be delivered to frontline officers to create community resilience.
- Greater workforce capacity as connected mobile solutions reduce double-work.
- Removal of frontline administrative burden by providing connected solutions.
- Targeted policing that is responsive to the data being provided.
- Improved officer and public safety through instant access to accurate information.
- More on-scene forensics treatment using solutions linked to national intelligence databases.

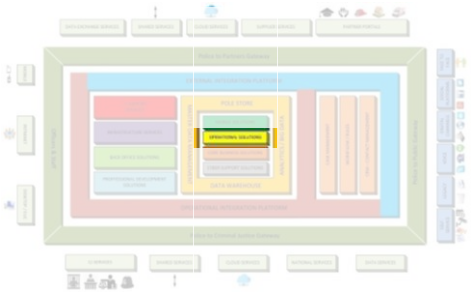
Project Alignment

- SD3 (ICT10, ICT68)

Key Projects

- ICT10 - Mobile

Operational Solutions



Current Position (including inflight plans)

- Fragmented legacy operational systems landscape not centralised.
- Legacy regions operating a unique mix of solutions and capabilities, which leads to potentially divergent business processes.
- After reviewing the relevant plans and conducting a number of workshops with key stakeholders, the preferred approach of re-implementing a best of breed COS region by region, supplemented with additional individual modular solutions (both commercial and in-house) is found to be the optimal approach in meeting the strategic goals of the organisation (medium term). Thereby establishing a critical enabling component for the long term strategic goals.
- A digital evidence storage platform should be considered as part of the COS and is currently missing from plans.

Overview

Command & Control, Crime, Intelligence, Case, Custody, National Solutions, Productions and other operational solutions.

Future State

- A single core operational system, feeding an operational POLE store, aligned to SOA principles is key to enabling the long term strategic goals of Police Scotland.
- The current plan's preferred approach will provide this foundation, however it may not end up being the "final" solution when considering the long term requirements of Police Scotland, and the changing pace of technology.

Deployment & Sustainability Considerations

The approach defined by ICT takes the best of breed approach to deploy a proven Police Scotland COS, alongside a mixture of in house and commercial components. Consideration must be given to the makeup of the internal capacity and capability to support this in the short to medium term.

Operating Model Considerations

A significant amount of current ICT resource and effort is linked to the support and development of current operational solutions. Future TOM options must be aligned with the transition and timescales from existing Operation Solutions to a proposed new solution.

Phasing Considerations

The planned approach by ICT will deliver a suitable solution in achievable timescales at a sustainable pace. However agreement to progress this approach must be received ASAP.

Strategic Alignment to 2026

- Development of nationally consistent business processes for the handling of digital evidence, which in turns allows this to be shared with partner organisations as part of the criminal justice journey.
- A core objective of Policing 2026 is the exchange of accurate information which is supported by development of a single core operational system for Police Scotland.
- Reduction in administrative burden currently associated with disparate legacy systems that don't fully interact with each other.
- Scaling of national cyber and forensic tools and solutions for investigation of crime.
- Prioritisation of the most vulnerable individuals and faster response to public needs.
- Flexible deployment of Police Scotland workforce based on enhanced Command and Control.
- Improved approach to local policing through deployment of nationally consistent core operational components.
- Through access to National Databases and Solutions, Police Scotland will be able to deliver insight to frontline officers allowing them to understand demand and hot spots.

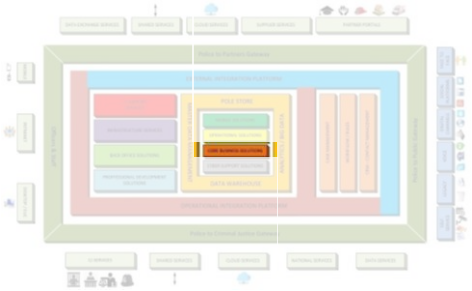
Project Alignment

- SD1 (ICT34, ICT08, ICT09, ICT28, ICT69, ICT84, ICT70), SD4 (ICT71), SD8 (ICT88), SD2 (ICT14, ICT11, ICT27, ICT83, ICT67, ICT42, ICT84)

Key Projects

- ICT34 – Digitally Enabled Policing (COPS), ICT88 – Contact Assessment Model, ICT42 - COPFS

Core Business Solutions



Overview

Includes typical productivity solutions (e.g. Office, Email and Messaging)

Current Position (including inflight plans)

- The current plans and inflight programs to improve mail, operating system, messaging, Skype, and telephony are in line with expectations against the reference architecture.
- Once complete the organisation will have increased communication flexibility, and be able to explore options around virtual control rooms and other approaches to service delivery.

Future State

- The requirements of a future state core business solutions have yet to be defined.
- It is likely that additional capabilities will be required to extend advanced digital capabilities to partners and citizens (this is somewhat dependant the implementation of Digital ICCS).

Deployment & Sustainability Considerations

Dependency on the delivery of existing core programmes.

Operating Model Considerations

Consolidation of applications and software version 'alignment' will have significant impact on the Service Management component of the IT Operating Model

Phasing Considerations

The ability to remotely deploy and manage applications is linked to core infrastructure projects (Alliance, ADEL, and Nat Net)

Strategic Alignment to 2026

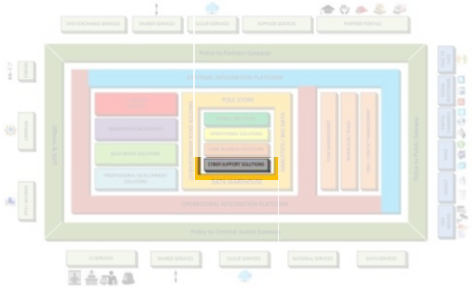
- Affording citizens and partners access to advanced digital capabilities, which can be used to assess and respond to threat, risk, and harm in the virtual space.
- Sharing of back-office functions to drive efficiencies.
- Realisation of workplace efficiency gains by improving the current systems that are in place.
- Realisation of core Policing 2026 objective of updated legacy ICT infrastructure and ways of working.
- Delivers on the Policing 2026 objective of effectively re-structuring and integrating Police Scotland's non-operational corporate infrastructure which previously hasn't been achieved.

Project Alignment

- SD6 (ICT16, ICT23, ICT24)

Key Projects

Cyber Solutions



Overview

The organisation is currently trying to gain consensus on the definition of Cyber within PS. The term Cyber does not cover the security or compliance of PS IT infrastructure. It does include solutions to support Cyber investigations and operations.

Current Position (including inflight plans)

- A strategy is currently being created to define the organisations needs around investigating and managing Cyber Crime and the associated public protection around cyber crime.
- A position is yet to be defined around the capabilities and accreditation required to undertake a cyber digital investigation.

Future State

- The receipt, and tracking of Cyber crime is no different than any other crime. However consideration needs to be given to how cyber intelligence, analytics, and public protection requirements are supported by, and fed back into, the Core Operational System.
- Any specialised equipment needed to digitally investigate a Cyber Crime should be “air gapped” from PS operational infrastructure.
- Digital forensics should be considering the use of Artificial Intelligence.
- Analytics will be provisioned through corporate operational policing analytical solution.

Deployment & Sustainability Considerations

The volume of digital evidence in a single case can be excessive for a human to analyse in reasonable timescales. As the number of these cases increases, the sustainability of digital forensics will require the use of AI to undertake the digital forensic analysis to ensure the volume of work can be managed.

Operating Model Considerations

Consideration should be given to the resourcing of digital based investigations. Does the digital aspect of the investigation require fully warranted personnel?

Phasing Considerations

Strategic Alignment to 2026

- Investment in Scotland’s forensic science capabilities.
- Scaling of Police Scotland’s Cyber capabilities.
- Professional development of the Police Scotland workforce.
- Promotion of material for public consumption which alerts and advises on protection from threat, risk, and harm in the virtual space.
- Deliver tools and solutions for Police Scotland to respond to an increasing number of crimes committed online – from Cyber attacks or Cyber terrorism.
- Response to increased threat and risk in virtual spaces.

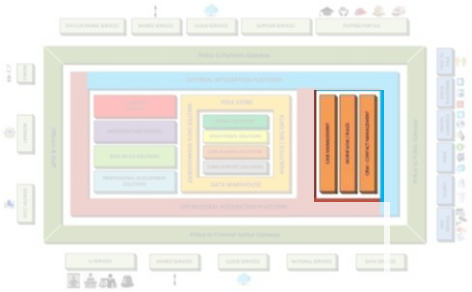
Project Alignment

- SD13 (ICT79, ICT93, ICT35, ICT15, ICT91)
- SD14

Key Projects

- ICT79 – Cyber Defence Strategy
- ICT15 – Cybercrime Forensic Infrastructure

CRM / Workflow / Share Case Management



Overview

Solutions that enable Police Scotland to share and work together resolving issues, and engage with partners, citizens, and communities in new ways.

Current Position (including inflight plans)

- The Local Approach to Policing project is starting to define its approach and requirements, but will be hampered by the lack of core operational components within the current landscape.

Future State

- CRM/ Workflow/Share Case Management will be core capabilities required to enable partnership working, improving local policing and community engagement.
- The incumbent C3 solutions will require modernisation to provide and realise the full benefit form this strategic initiative.

Deployment & Sustainability Considerations

The approach towards implementation of these capabilities must be undertaken with consideration to the capabilities of existing/future C3 solutions as there will be significant functional overlap and integration requirements.

Operating Model Considerations

Phasing Considerations

This LAP project will be largely dependant on COS, POLE, C3, and integration platforms. This should be a stage 2 medium to long term initiative from a solutions perspective.

Project Alignment

- SD8 (ICT88)
- SD4 (ICT71)

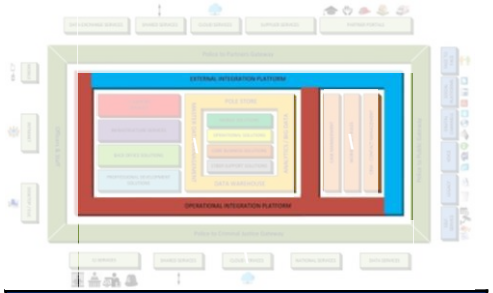
Key Projects

- ICT88 – Contact Assessment Model

Strategic Alignment to 2026

- Realisation of the Policing 2026 objective to integrate into partner networks.
- Meaningful local collaboration that proves the value third sector organisations can add.
- Collaboration with internal partners as digital opens up greater opportunities for criminals online.
- Development of tools and solutions that meet the public needs.
- Realisation of the Policing 2026 objective to build resilience and self-reliance in communities through increased partner working.
- Better outcomes from individuals and communities.
- Delivery of new and improved services in conjunction with partner organisations.
- Realisation of the Policing 2026 objective to share information and insight with partner organisations.
- Police Scotland to learn from partners as they work collaboratively in order to improve frontline experience.
- Realisation of the Christie Commissions request for Police Scotland to work effectively with other organisations in order to improve outcomes for the public.
- Policing which promotes measures to prevent crime, harm, and disorder.
- Effective emergency responses to major incidents and events, ensuring most appropriate organisation responds.
- Delivers on the Policing 2026 object of transforming how Police Scotland are contacted and how enquiries/incidents are resolved.

Operational & External Integration Platforms



Current Position (including inflight plans)

- SOA is an architectural approach and can be enabled by a number of disparate solution capabilities.
- Moving to SOA can be challenge for an organisation as it involves a perception shift away from thinking about applications in silos, and IT and the business operating very closely. SOA requires the organisation to think in terms of end-to-end business processes with IT being the facilitator for providing the distinct pieces of business functionality, but the complexity of underlying implementation is hidden from the User.
- Commercial off the shelf (COTS) solutions can be implemented to support this approach, but they will not be immediately needed from day one.

Overview

Enables the operational solutions to be integrated together using SOA principles, removing duplication/re-keying, and improving overall organisational data quality and integrity.

Future State

- SOA will be enshrined into the architectural blueprint of the organisation and all future ICT initiatives will be implemented with this architectural requirement.
- As the organisation progresses against the target architectural blueprint, specific solutions which support advanced/large scale SOA will be implemented.

Deployment & Sustainability Considerations

Initially this will be controlled through application level API's and services, which makes it critical for the organisation to sign up to this architectural approach. As more and more digitally enabled services are delivered, the need to deploy discrete best-of-breed SOA solutions will arise.

Operating Model Considerations

Consideration of the role of Strategy and Architecture.

Phasing Considerations

Application level SOA support will be sufficient in the short term.

Medium to long term discrete strategic integration platforms(s) will be required.

Strategic Alignment to 2026

- Facilitates Police Scotland in sharing data and insight with partner organisations, allowing early intervention.
- Supports access to national databases, such as the National Biometric Database.
- Opportunity for Police Scotland to invest in technology streamlining processes through greater self-service and automation.
- Digital evidence sharing with criminal justice partners, such as the Crown Office and Procurator Fiscal Service (COPFS).
- Use of Police Scotland network to promote sharing of back-office functions to drive efficiencies.
- Development of national technology infrastructure and deliberate solutions that improve information sharing.

Project Alignment

- Inf3
- Inf4

Key Projects

5. Architectural Observations

Capability Complexity

During this review a number of capabilities have been identified which form part of the strategic critical path and are currently at risk of not aligning to the overall ICT strategy, and therefore are adding significant complexity and risk to the delivery of associated capabilities, e.g. the Core Operational Solution. For example:

Digital Evidence	• Digital evidence is a critical capability which has a number of already active stakeholders, including: Forensics, Covert, Cyber, Scottish Government, Criminal Justice, and Overt. In addition it will form a critical part of COS, Mobile, Digital Citizen, and Digital Enquires.
Analytics	• In addition to core operational reporting and analytical needs, many of the specialist units have unique analytical requirements which are currently being pursued or considered independently of a centralised solution and strategy.
Intelligence	• Intelligence has been traditionally siloed within the Specialist Units and other operational areas. Intelligence needs to be considered an integral component of the COS, and all operational units should feed an use a single unified solution.

Capability Complexity – Digital Evidence

- The storage, management, sharing, and analysis of digital evidence is a critical capability required by Police Scotland and its Partners. It is necessary to enable mobile digital evidence capture, Body Worn Video, digital enquires, digital citizen acquisition, and will support the wider Criminal Justice (CJ) community in sharing and disseminating digital evidence securely through the CJ landscape.

- The number of key stakeholders involved with Digital Evidence places significant complexity around the realisation of this capability, and therefore a standalone project has been created to deliver the solution.

- Furthermore some Specialist Units have some limited solution capability already in place, and/or are progressing towards a solution that may not meet the end-to-end needs of the entire community.

- The Scottish Government has already made significant strides in outlining a solution design and has entered into a discovery phase with suppliers. Police Scotland need to establish a project to ensure that its requirements are met and the overall solution is designed with all long and short term stakeholder requirements in mind.

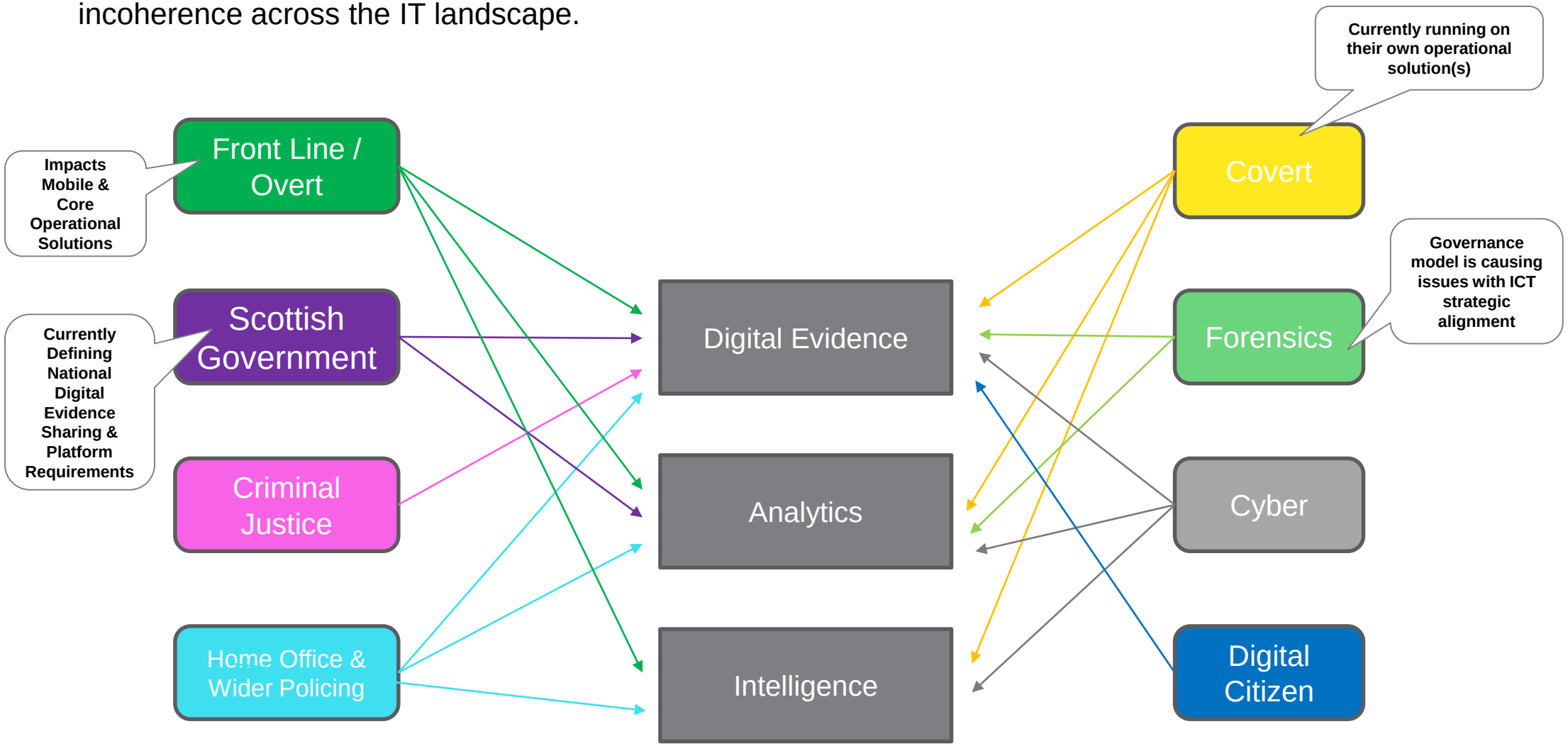
Capability Complexity – Analytics & Intelligence

- Through our analysis and conversations with various stakeholders, including Specialist Units, common themes around building new analytical and intelligence capabilities to meet their specialist requirements have been identified.

- The risk is that these stakeholders will progress with their unique plans and deliver solutions that will duplicate functionality and capabilities at significant cost to Police Scotland. This approach will also create an environment where siloes of information can flourish, which will reduce the benefits of a centralised information and analytical repository, and impair the value of intelligence.

Capability Complexity – Representative Stakeholder Map

The diagram below demonstrates the complex stakeholder map around the four selected capabilities highlighted, and shows the need for architectural and strategic governance at all levels to avoid incoherence across the IT landscape.



Architectural Governance

- The complexity of the stakeholder landscape and technical requirements, coupled with the number of parallel long term delivery projects, and their interdependencies, reinforces the need for strong architectural governance at all levels of the organisation.

- New governance models and design controls need to be established at all levels within the organisation which maintain the strategic vision and delivery alignment of the transformational projects and programmes. Corporate level Project Management Office (PMO) and resource management will also be required to ensure resources are effectively managed and operational disruption is minimised.

- Specialist Units and other operational areas which have traditionally operated with some level of ICT autonomy need to be reviewed from both a ways of working and service delivery approach.

- Currently ICT is attempting to architecturally control technology projects with limited resources and capabilities, this is further constrained by limited business/enterprise architecture support and governance within the wider organisation.

6. Defining Transition States

Transition States – Strategic Approach

The underlying approach to delivering enhanced capability through Digital Solutions, Data & Information and Technology will require effective prioritisation and managed implementation with equal consideration of deliverability and the ability of the Force to absorb change.

	Transition 1	Transition 2	Transition 3
Capabilities Delivered	1. Establishes core capabilities in supporting improved front line operational efficiency providing opportunities to realise financial savings 2. Establishes foundational capability for improved partner collaboration and enhanced interaction with citizens 3. Legal and regulatory compliance	1. Extends capabilities enabling improvement in front line productivity and reductions in middle office support extending opportunities to realise financial savings 2. Establishes capability for more effective management and utilisation of Intelligence including enhanced mining and analysis and use of complex data sets	1. Continual refinement and operational efficiency
Potential Data and IT System Impact	1. Core operational systems and deployment of mobile technology to the front line 2. Harmonisation and standardisation of operational data 3. Tactical integration of core systems 4. Reduction and decommissioning of local systems	1. Enhanced mobile capability reducing dependencies on operational middle office 2. Close integration with 'whole of Justice system' 3. Establishment of Force wide data asset management and governance	1. Decommissioning of non-core / local systems 2. Eradication of 'shadow IT' 3. Adoption of ongoing Agile delivery and deployment 4. Operating Model configured to business as usual / ongoing needs of the Force

Early Wins and Risk Reduction – Mobile Technology / Analytics / Information Integration / Automation

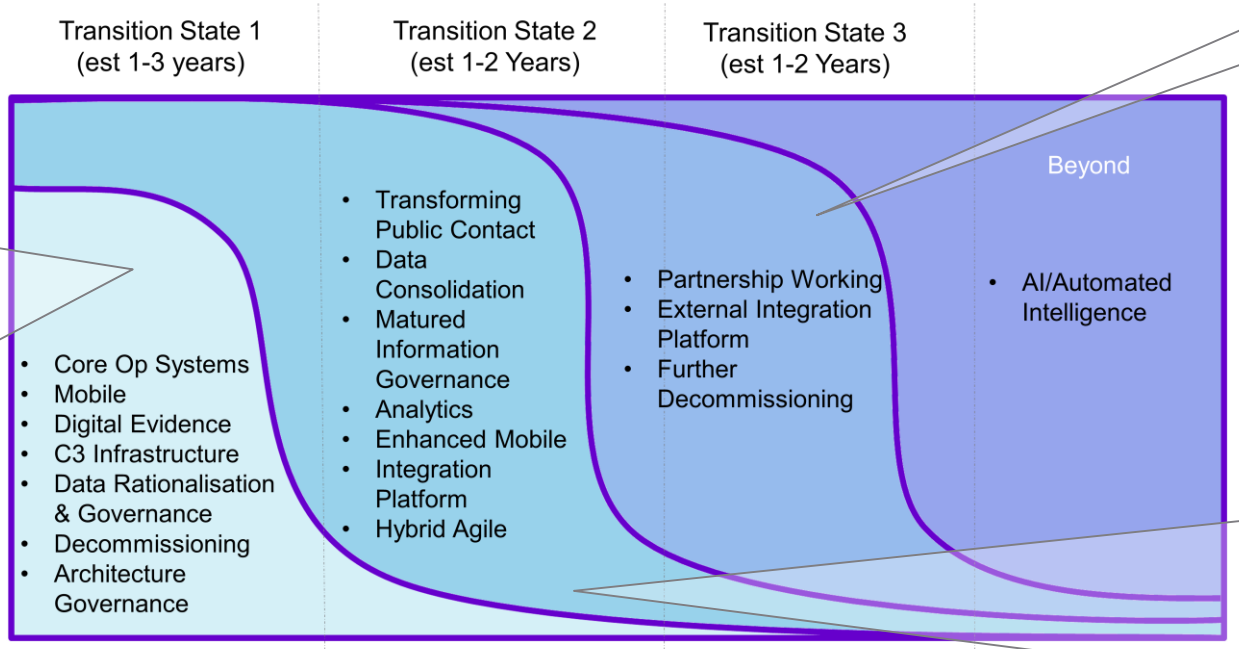
Value & benefits realisation | **Cost, value for money and affordability** | **Reputational, financial and operational risk** | **Staffing impact and capacity for change**

Delivery management and governance persists throughout

Transition States

The underlying approach to delivering enhanced capability through Digital Solutions, Data & Information and Technology will require effective prioritisation and managed implementation with equal consideration of deliverability and the ability of the Force to absorb change.

1. Creates core capabilities in supporting improved front line operational efficiency, providing opportunities to realise financial savings
2. Establishes foundational capability for improved partner collaboration and enhanced interaction with citizens
3. Legal and regulatory compliance



Continual refinement and operational efficiency

1. Extends capabilities enabling improvement in front line productivity and reductions in middle office support extending opportunities to realise financial savings
2. Establishes capability for more effective management and utilisation of Intelligence including enhanced mining and analysis and use of complex data sets

Strategic Opportunities and Risk Reduction – e.g.: Mobile Technology / Analytics / Information Integration / Automation

Value & benefits realisation

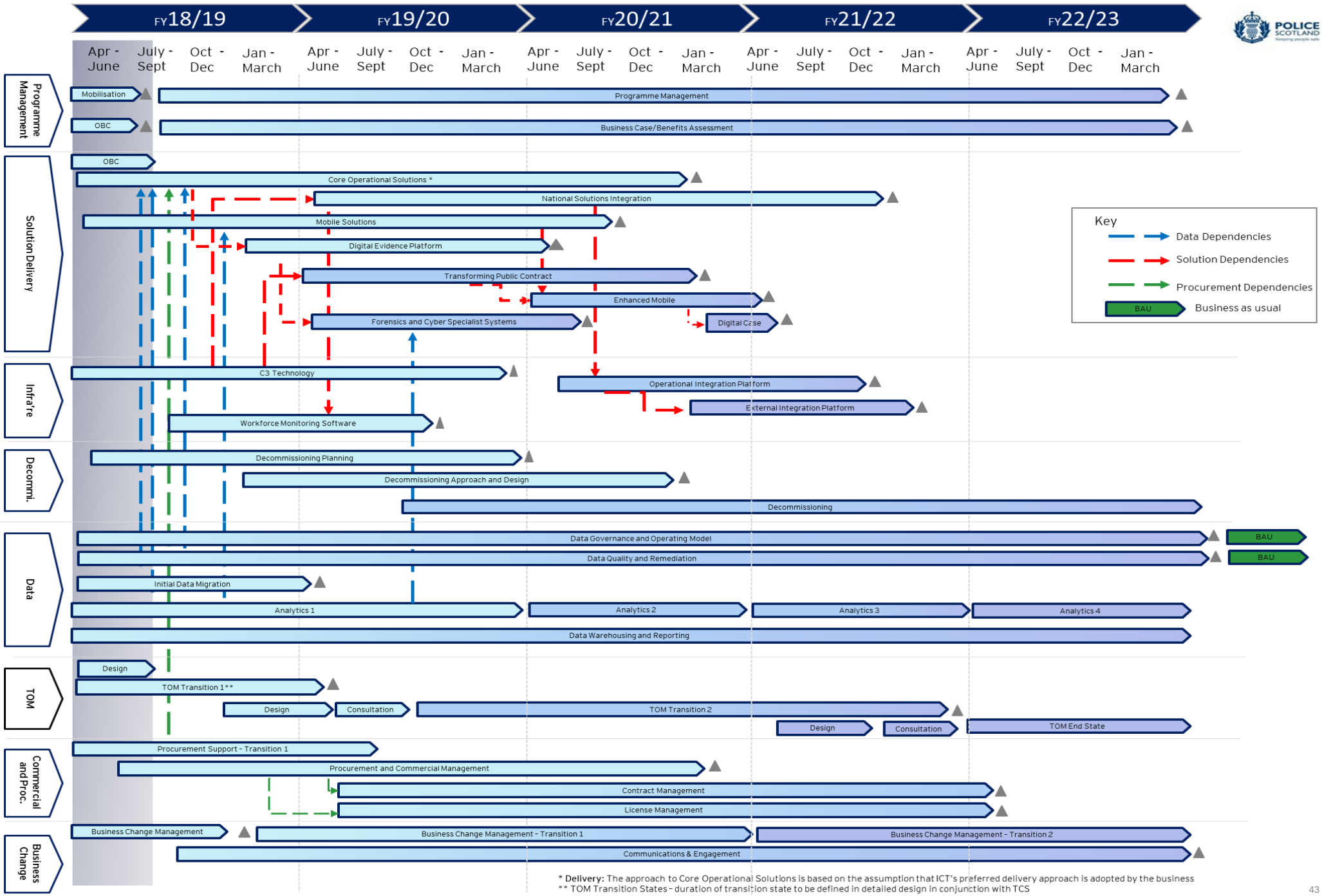
Cost, value for money and affordability

Reputational, financial and operational risk

Staffing impact and capacity for change

Delivery management and governance persists throughout

Programme Plan



* **Delivery:** The approach to Core Operational Solutions is based on the assumption that ICT's preferred delivery approach is adopted by the business
** TOM Transition States - duration of transition state to be defined in detailed design in conjunction with TCS

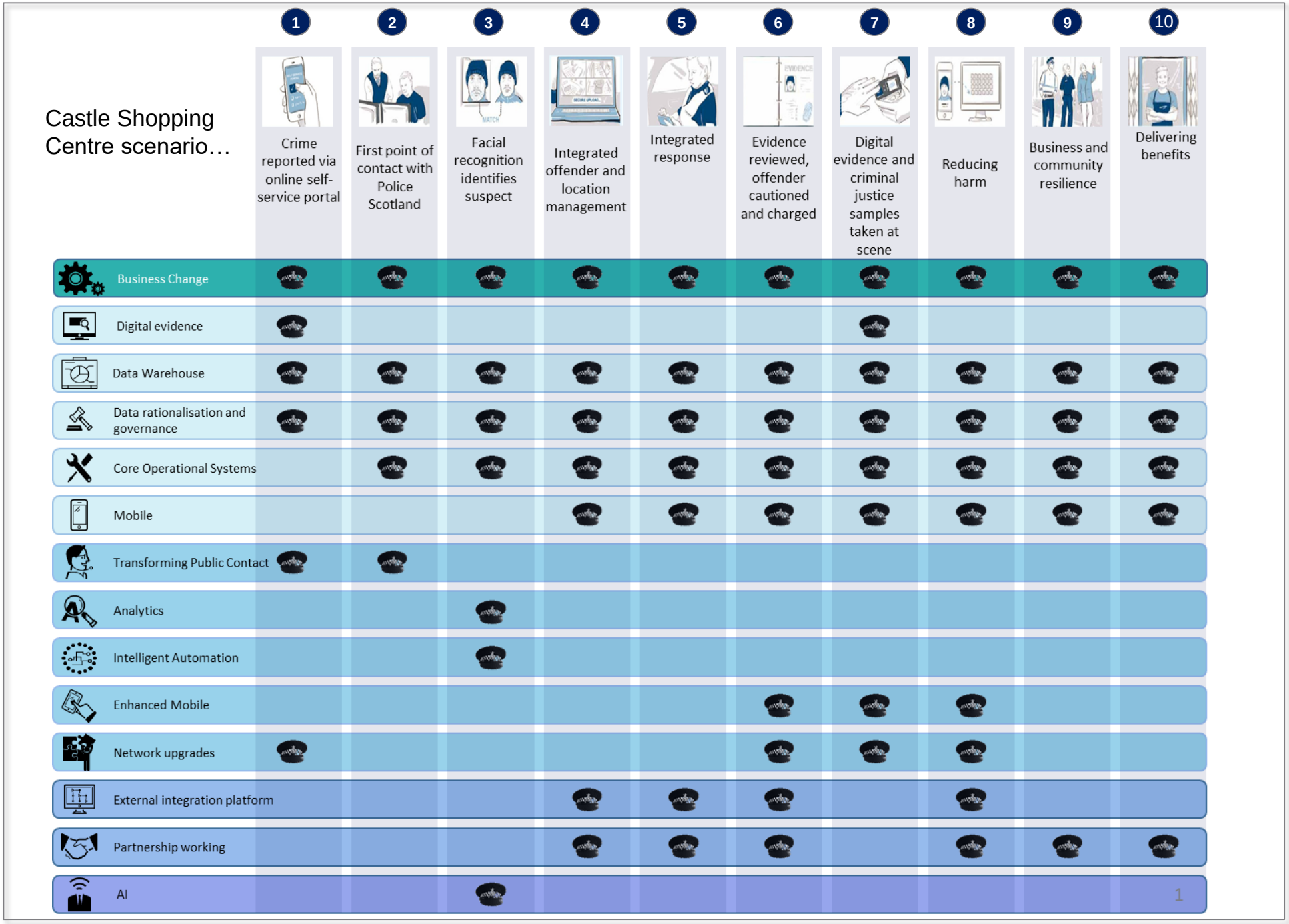
7. Strategic ICT Delivering Policing 2026

Realising Policing 2026

Policing 2026 sets out a case study of PC Sophie Robertson and how her role has been improved by advances in digital, data, and ICT.

Desired 2026 Outcome	Dependencies	Digital, Data, and ICT Strategy Enabled Change
An officer arrives at a civic hub, where they change into uniform with smart devices and embedded body-worn video camera.	Mobile Technology Digital Evidence Core Operational Solutions	The Strategy has identified a need for Police Scotland to invest in mobile devices to improve efficiency of frontline officers. Projects within the Solution Delivery Workstream which target Mobile and Enhanced Mobile have been established.
The officer briefing session contains up-to-date data about initiatives and actionable intelligence. Hot spots based on partner data is flagged.	Master Data Management Data Warehousing and Reporting, Analytics Partnership Working Transforming Public Contact	The Strategy has identified a need for Police Scotland to migrate only necessary data and store only what is lawful. By managing the data stored, Police Scotland can much more accurately analyse and report on collected information, providing assurance around the validity of the data to the end user. The need for infrastructure that facilitates Partnership Working has also been identified, and the strategy recommends an External Integration Platform project within the Infrastructure Workstream.
Whilst on patrol, the officer is able to target hotspots based on data shared to their mobile device.	Mobile Technology Analytics Partnership Working Transforming Public Contact	Through workshops, the need for the Strategy to reflect a drive toward preventative policing identified. Preventative policing is also driven in part by access to partner data, and this is achieved through the Infrastructure Workstream.
At an incident, an officer is able to record witness statements and share this internally. Additionally, any information pertinent to partner organisations can be shared externally.	Mobile Technology Partnership Working Digital Evidence Transforming Public Contact	The Strategy solution architecture recommends both an internal and external integration platform to share information. Combined with officers access to mobile devices including body-worn video, this reduces the double-keying of data into multiple systems, or physical sharing of information with partner agencies on CCTV discs or the general public mobile devices.
The officer is able to use their mobile device to create a report which can be made available at any point for evidential purposes to criminal justice partners.	Mobile Technology Partnership Working Core Operational Solutions Digital Case Digital Evidence	The Strategy has recognised a need for a nationally standardised core operational solution (COS) within the Solution Delivery Workstream. This allows a frontline officer to be fully efficient whilst working at the frontline, without the need to return to an office. The Strategy has also recognised the need for an external integration platform to facilitate partner working, allowing sharing and access to vital information.
The officer is able to access Council CCTV on their mobile device and download the footage needed. Facial recognition software can be applied to the footage to identify the suspect.	Partnership Working Core Operational Solutions Digital Evidence Transforming Public Contact External Integration Platform	The Strategy recognises a need for an external integration platform which allows officers to be fully mobile, and have a full suite of capabilities on their mobile devices. This is established in the Solution Delivery Workstream of the strategy.
Statistics provided at a Community Meeting by the officer can be shared via social media, and the session live-streamed to improve accessibility. Attendees are able to interact with the officer via social media channels too.	Digital Citizen and Digital Partner Transforming Public Contact Enhanced Mobile	Through workshops there has been recognition that technology is changing the way in which the Police are able to interact with citizens. The Strategy recommends a Digital Citizen and Digital Partner Project as well as a Transformation of Public Contact Project, both of which fall under Solution Delivery.

Digital, Data & ICT in the context of Policing 2026



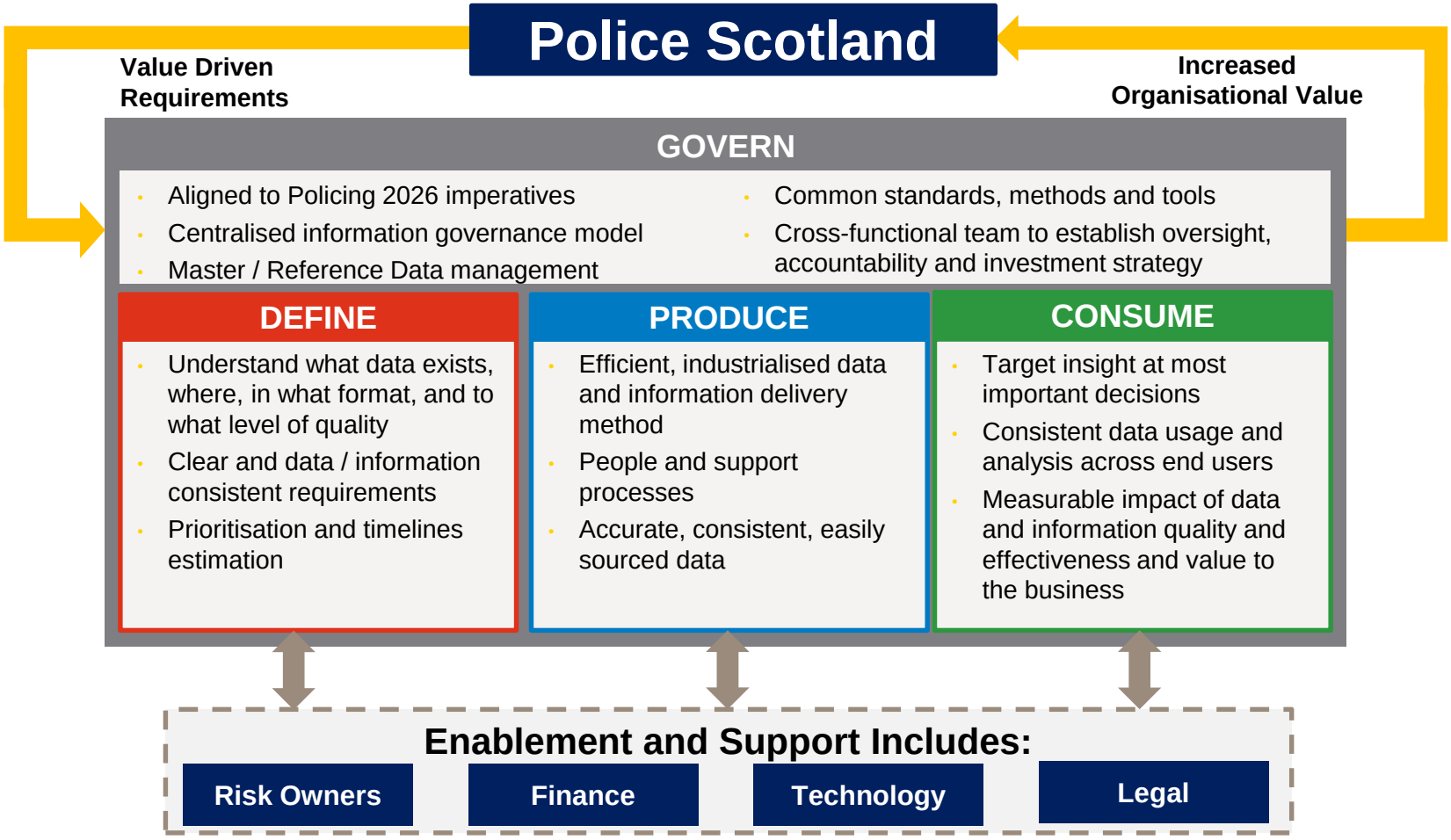
Benefits

Benefit	Transition 1	Transition 2	Transition 3
Reduced risk of non-compliance with legal requirements surrounding evidence			
Manage risk of non-compliance with regulatory and statutory requirements			
Increased Police Officer availability to focus on preventing, solving, and reducing crime			
Greater flexibility and dynamism to meet business requirements			
Reduced supervision			
Greater options for internal and external collaboration			
Reduced risk of system failure			
Rationalisation of the Force Estate			
Greater quality of intelligence accessed and presented more quickly			
Improved quality of data to inform decisions and performance measurement			
Improved usability			
Protected and improved reputation and perception by the public			
Enhanced customer experience: external and internal			
Reduced risk of litigation			
Increased Police Officer mobility			
Improved call handling efficiency			
Better informed resource to support management of incidents and crime investigations			
Increased engagement between the police and the public to identify, understand, and tackle emerging threats			
Improved and correct deployment of resources to incidents			
Improved Police Officer and Partner safety			
Improved engagement with public around preventing cyber crime			
Total number benefits in progress	8	16	18

8. Data and Information Operating Model

Data & Information Operating Model

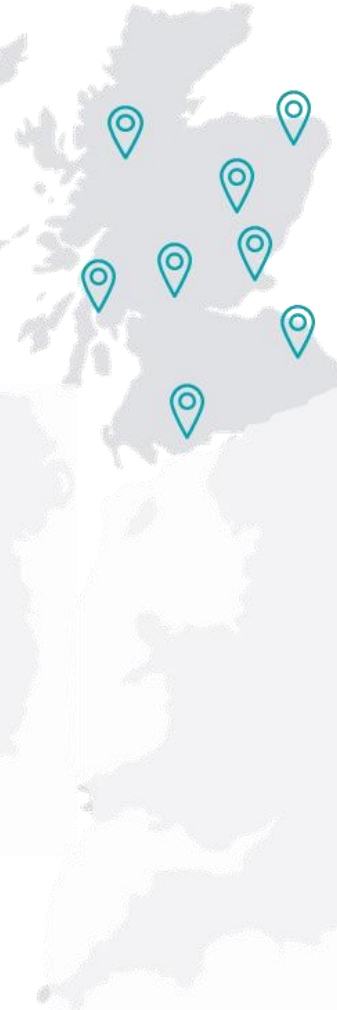
The Data and Information Target Operating Model focuses on how data is Defined, Produced, Consumed and Governed across Police Scotland to drive insight, confidence and value. This framework has formed the basis for an initial assessment of Police Scotland's current Data & Information position, the gap to desired maturity, and therefore the candidate initiatives required to enable transformation.



Data findings

TOP 5 – HIGH RISK FACTORS

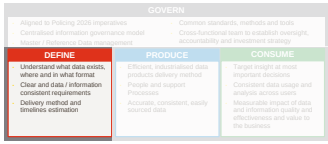
- Limited governance framework
- Data privacy exposure (GDPR)
- No mapping of data estate
- Data quality challenges
- No master data management



TOP 5 – ORGANISATIONAL ISSUES

- Low confidence in data outputs
- SCOMIS upgrade required
- No data visualisation capability
- Basic analytical toolset
- Limited self service analytics

Data and Information: Define



As Is Position

- No consolidated understanding of the data estate, including location, quality, quantity, usage, and applicability risks inefficient requirements definition and compliance challenges.
- Lack of standardised data definitions across regions, integration and a single view of data compromises ability to effectively design data-driven products. Examples include:
  - Crime data inconsistently recorded
  - Lack of geo-tagging limits insight effectiveness
  - c.50m nominal records across 600 applications on 170 systems
- Data products requirements (including reports and analytics) not considered in the light of existing capacity or a roadmap aligned to organisational strategic objectives.

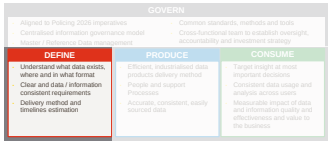
Future State

- Clear and coordinated data requirements definition aligned to organisational need and value
- Single, accessible view of data across the Police Scotland estate, including mastery and clear and agreed business ownership
- Consistent data product definition against understood and transparent data assets that enable both nationally and locally focused data and information products (e.g. data feeds, reports, and analytics)
- Coordinated approach to data and information delivery that considers capacity to develop and support and drives delivery efficiency

Activities and Candidate Projects

- Execute Data Discovery project to map and document key data items across the applications estate.
  - Prioritise data objects required to support new application implementation
  - Deliver a Master Data Index to guide data quality cleansing and remediation and ongoing data delivery as well as retention and deletion requirements to inform data migration strategy
- Data and information roadmap to align requirements to organisational strategy
- Define underpinning requirements for supporting technology

Data and Information: Define – Subject Data Map



- A recommended initial action is to map the Police Scotland data estate and make an estimate of the amount of work required over the next several years to cleanse the data
- This action should occur as part of a 100 Day Data Discovery exercise - which would set the key areas of focus for the outer years
- From our investigations the following data areas have been identified as starting point.

Case & Crime Data 01

- Currently residing on 6 platforms, with 8 separate instances – key steps required to reduce nominals

02 **Arrest & Custody Data**

- Single national system for arrest & custody data implemented in 2017 – historic data would need to be located

POLE Store (People, Objects, Location, Events)

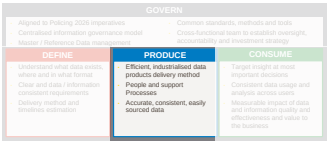
- Vulnerable and missing persons data resides on legacy systems and files, which would need to be located

Vulnerable\ Missing Persons 03

- Divisions looking to migrate to single STORM system, aggregated data may be available

04 **Command & Control Data**

Data and Information: Produce



As Is Position

- No data warehousing capability or single version of the truth hampers insight delivery
- Disaggregated data and applications estate drives reporting / analytics inconsistency and inefficient information delivery
- Evidence of reports, analytics and visualisation being delivered non-enterprise strength toolkits including advanced excel and
- Piecemeal focus on data quality management and remediation has led to significant data inconsistency and inefficiency in data and information delivery
- Reporting platform (SCOMIS) un-supported by end 2018. 'Upgrade' (reimplementation), or replacement decision required imminently to enable continued service provision.

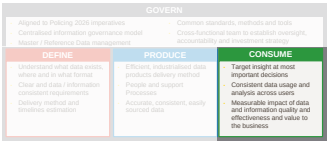
Future State

- Industrialised reporting and analytics capability underpinned by a consistent, accurate and understood data that frees Police Scotland up to focus on insight delivery and next best action execution
- Consistent data product definition against understood and transparent data assets
- Coordinated approach to data and information delivery that considers capacity to develop and support and drives delivery efficiency
- Master data management underpins data objects definition and management in an application-agnostic manner to provision accurate, complete and consistent data to underpin reporting, analytics, SOA-based integration and POLE requirements

Activities and Candidate Projects

- Data quality remediation and master data management, initially focused on POLE to support COS implementation to address data required in a phased way across transition states.
- GDPR compliance and remediation
- Master data management and data migration. Note that data migration strategy will outline data to be migrated (in line with data governance principles), and the data to be retained in a 'legacy' store (e.g. to support statistical reporting purposes) but which may not be initially required in operational or transactional reporting solutions
- Enterprise data warehouse implementation and reporting

Data and Information: Consume



As Is Position

- Poor quality data is limiting availability of, and confidence in, insight across the organisation
- Inconsistent reports (e.g. figures quoted for similar FOI requests can vary) drives issues with Police Scotland's reputation with external stakeholders
- Analytics and visualisation activity is characterised by 'cottage industry' development (e.g. Excel), rework and manual data manipulation
- No dashboard delivery to senior leadership
- Self-service reporting and analytics consumption is limited driving increased pressure on APU and ICT to produce and deliver bespoke requirements
- National data sets are incomplete – e.g. data for who, why and how crimes were committed is not available

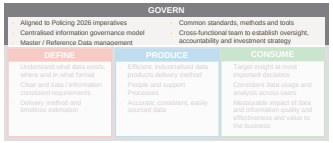
Future State

- Clear data requirements requirements aligned to organisational need and value
- Consistent data product definition against understood, integrated and transparent data assets
- Coordinated approach to data and information delivery that considers capacity to develop and support and drives delivery efficiency
- Real time analysis, consistent forecasting and reporting across an integrated data set, including national requirements

Activities and Candidate Projects

- Data quality standardisation and management to drive trust in Police Scotland's data assets
- Reporting and Analytics facilities that are designed and implemented to provide fit-for-purpose technology foundation that leverages consistent, accurate and understood data assets
- Enables Police Scotland's analytics capabilities to focus on delivering insight to the organisation, its partners, the public, and key stakeholders and ongoing input into the data and information roadmap

Data and Information: Govern



As Is Position

- No consolidated understanding of the full data estate, including location, quality, quantity, applicability, and supporting technology, leads to issues with inefficient requirements definition and compliance challenges.
- Lack of standardised data definitions compromises ability to effectively design data-driven products
- Existing data/information governance driven in functional (application) silos, across different teams, and is not fully coordinated or scalable
- Data products requirements (including reports and analytics) are not considered in the light of existing capacity or a roadmap to aligned to organisational strategic objectives
- Data governance project has been initiated and some focus is currently being applied to GDPR compliance.

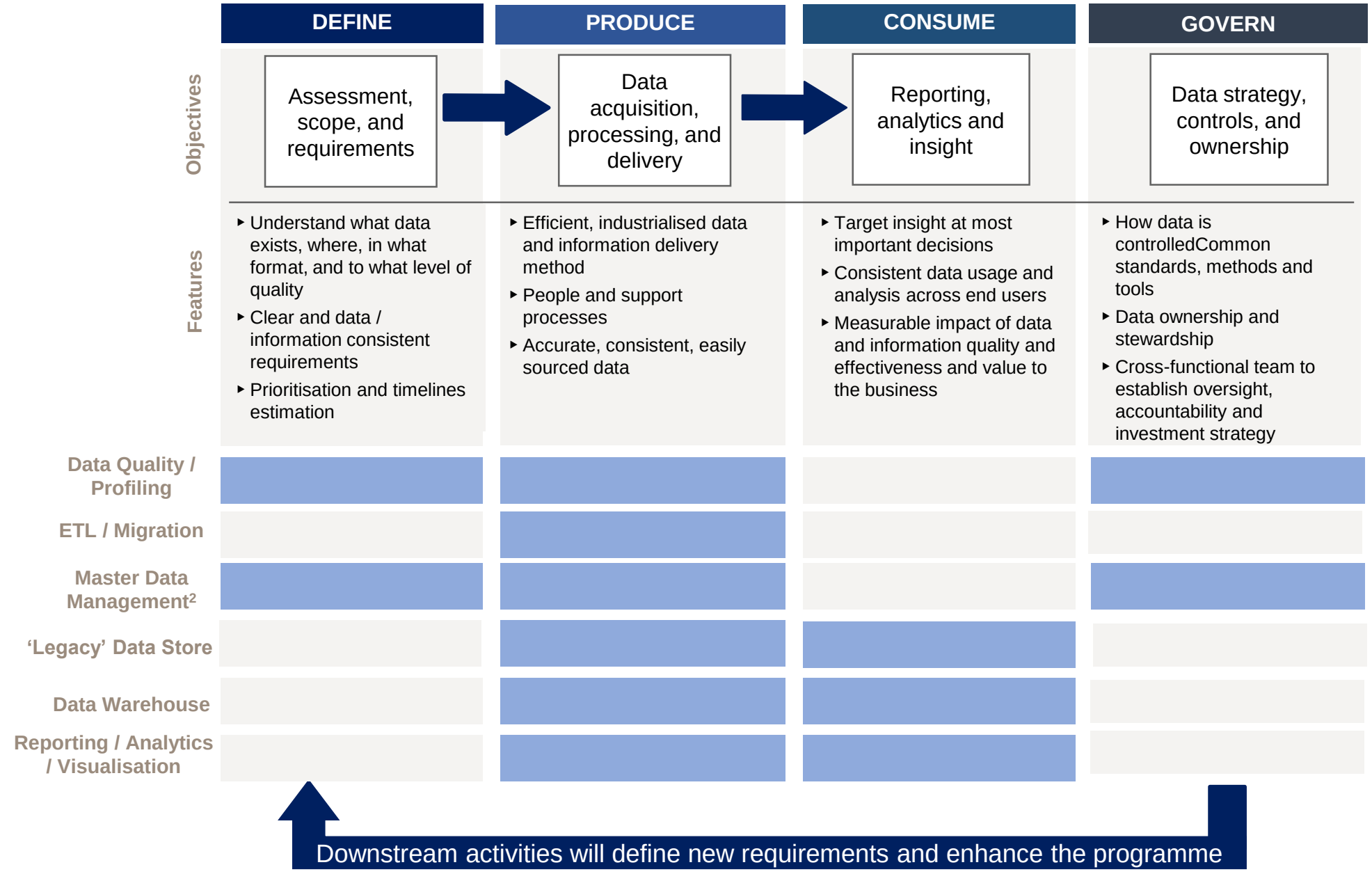
Future State

- Integrated approach to data that considers business, operational and technology implications against agreed principles and roadmap
- Clearly defined ownership and accountability including a joint business, data and IT steering committee, including clear senior business ownership
- Define and operate functional and technical data governance processes, including escalation routes
- Deliver user training through interactive workshops
- Maintain data and information roadmap for potential expansion or improvement

Activities and Candidate Projects

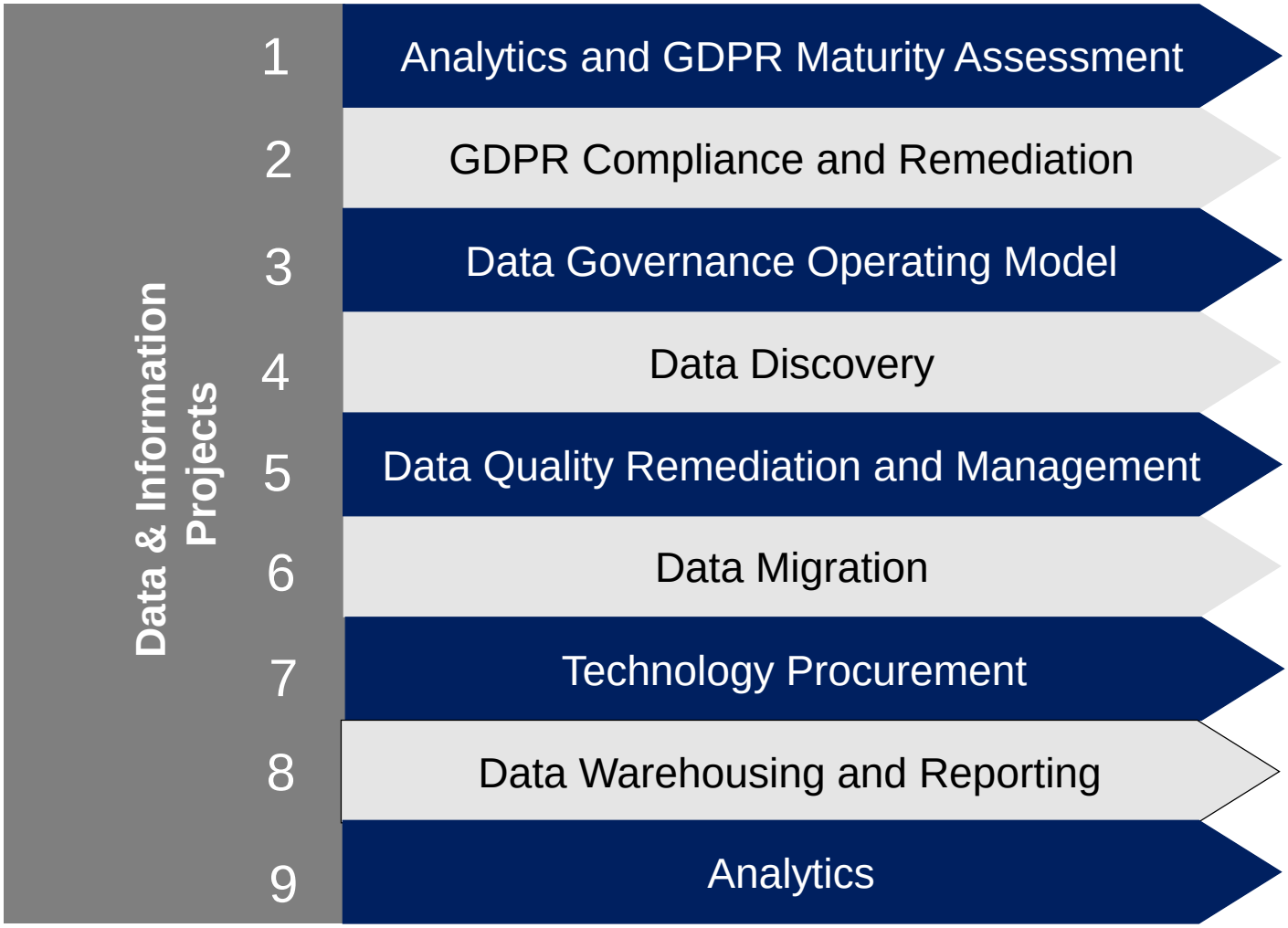
- Data Governance operating model definition and implementation including:
  - Data and information principles and standards including data quality standards, migration strategy, and technology investments
  - Governance processes and enabling steering groups, data ownership and stewardship network
- GDPR compliance improvement and monitoring

Data & Information Operating Model – Technology Implications[1]



1. Procurement and/or implementation of all data technologies may not be required. Multiple technologies may be available from a single vendor subject to requirements.
2. Best of breed MDM solution required if data created, updated, or deleted in multiple points of the architecture, and/or POLE store not deemed sufficient in initial transitions.

Data & Information – Candidate Project List



Police Scotland Digital, Data & ICT Strategy

100 Day Plan

28 March 2018

Version 2 02

Version and Change History

Version	Date	Comments
1.01	2 March 2018	Initial draft for discussion at Steering Group
1.02	20th March 2018	Second draft describing programme workstream structure
1.03	22nd March 2018	Third draft following team review
2 00	23rd March 2018	Issue to Steering Group
2 01	28th March 2018	Updates applied following Steering Group review
2 02	30th March 2018	Further updates to reflect Steering Group comments

Introduction & purpose

Introduction

The following principal products have been developed to support the Strategic Outline Business Case (SOBC)

- :Vision & Blueprint;
- Roadmap / High Level Plan;
- High Level Architecture;
- Digital, Data & ICT (DDI) Mode of Operations.

In order to proceed with momentum, 100 day plans have been developed and set out the activity to be undertaken during the period that approval is sought for investment.

The 100 day activity is assumed to span the period May to August 2018.

Outcome of 100 Days

On completing the 100 day activity the DDI programme will commence.

This means that the following will have been achieved:

1. Overarching Programme Plan approved
2. Project initiation activity completed for all Transition 1 projects
3. Resources secured to commence Transition 1 projects
4. Outline Business Case approved with funding secured to deliver Transition 1 activity.

In order to achieve the outcomes described above it will be necessary to:

1. Confirm and baseline Solution and Infrastructure Architectures
2. Confirm and baseline Information and Data Architectures and establish the policies, practices and resources to improve and manage the Force's information and data assets;
3. Confirm the IT Operating Model and Organisation Design;
4. Establish a Commercial & Procurement Plan and conduct early market engagement;
5. Establish a Business Change Management Strategy, secure a Business Change Network and deliver targeted interventions and communications.

Business Case Development

The principal output of the 100 days will be the **Outline Business Case (OBC)**. Approval of the Outline Business Case is significant in that it provides the authority to commence formal procurement activity.

Timeframe	Business Case Stage	Primary Objective
January - March 2018	Strategic Outline Business Case (SOBC)	Development of Strategy and Roadmap
May – August 2018	Outline Business Case (OBC)	Project Definition
September 2018 onwards	Full Business Case (FBC)	Design & Deliver
	Benefits Realisation	Implementation

Scope of 100 Day Activities

The 100 Day activities are planned in accordance with the Programme Structure set out in the Strategic Outline Business Case (SOBC). The 100 day activity will be structured into four stages: Initiation; Programme Definition; Programme Design; and Finalisation.

Candidate Projects

A set of candidate projects have been identified in the SOBC to deliver the programme of change. A summary description of the full set of candidate projects is contained in Appendix C.

100 Day Plan – three components of activity

Three components of activity have been defined to develop the Outline Business Case:

1. **Programme Workstreams** – a series of cross cutting activities that will deliver the high level integrated design to inform the development of the Outline Business Case (OBC)

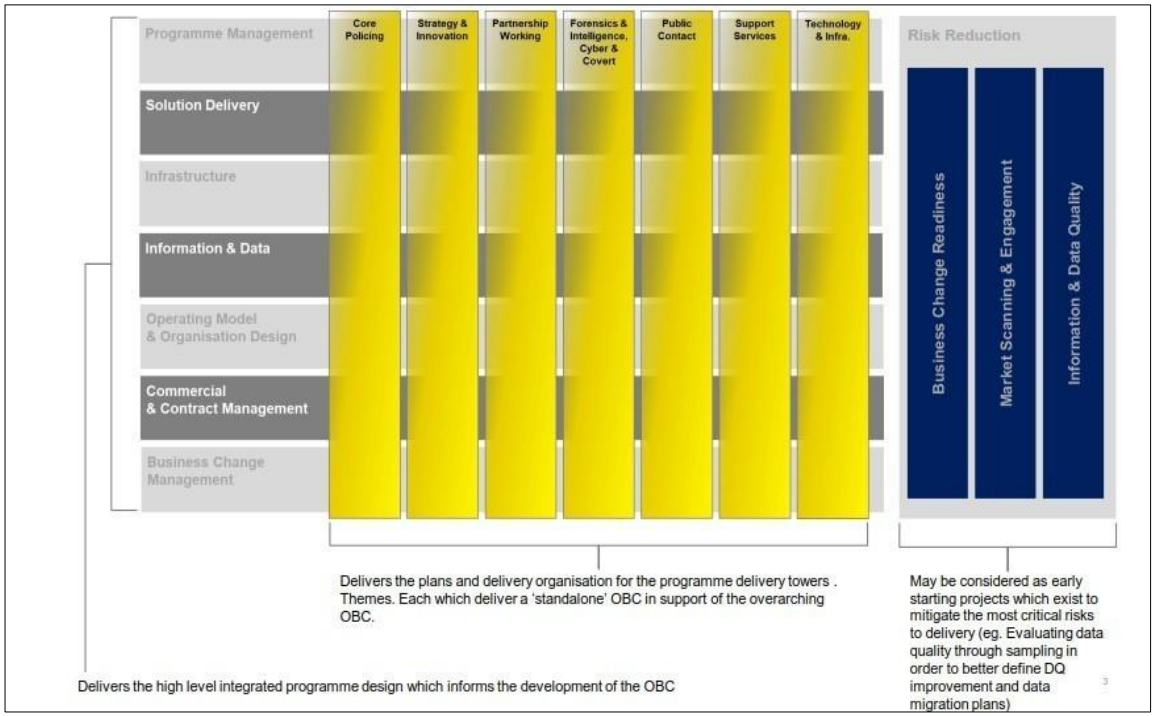
   The OBC for the programme will be developed within the Programme Workstreams
2. **Technology Transformation Themes** – a collection of projects grouped around common business outcomes or capabilities.

   The candidate projects have been developed to support the SOBC. The projects have been mapped to existing change initiatives and current ICT projects. Please refer to Appendix B for the mapping.

   Each Theme will develop a standalone OBC in support of the programme OBC

3. **Risk reduction** – a set of projects which have been identified to mitigate the most critical risks to the delivery of projects and drive additional confidence in the OBC

The diagram to the right describes the relationship between the components of activity.



Workstream and Technology Transformation Themes components

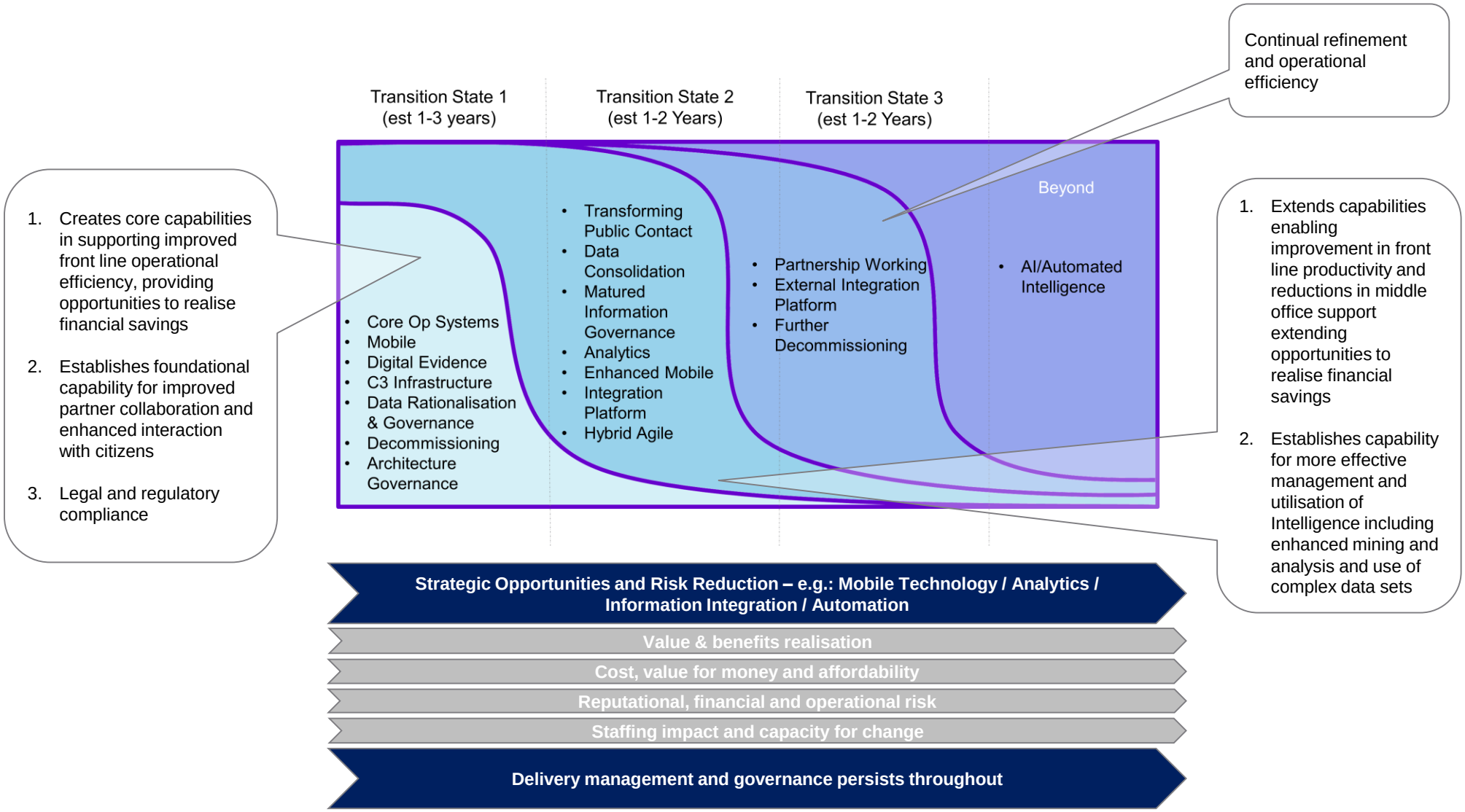
The table below provide a summary overview of the scope of the cross cutting programme workstream and the technology transformation themes

Workstream	Overview
Programme Management	The activities required to manage resource, finance, quality and delivery against plan. The OBC will be delivered within this workstream
Solution Delivery	The activities required to set the relevant digital and ICT architectural strategies and approach for the programme and specifically Transition one.
Infrastructure	The activities required to set the relevant technology infrastructure strategies approach for the programme and specifically Transition one.
Information & Data	The activities required to set the relevant information and data strategies for the programme and specifically Transition one. stablish the policies, practices and resources to improve and manage the Force's information and data assets.
Operating Model & Org Design	The activities required to confirm the IT Operating Model and Organisation Design and to provide the required information to complete the OBC.
Commercial Case	The activities required to set the commercial strategies and approaches for the programme and specifically Transition one project and to provide the required information to complete the OBC.
Business Change Management	The activities to establish a Business Change Management Strategy, secure a Business Change Network and deliver targeted interventions and communications in support of the OBC

Technology Transformation Theme	Overview
Core Policing	A collection of projects which will deliver policing related business tools to officers and staff in the office and in the field
Strategy & Innovation	A collection of projects that will deliver innovative solutions across all staff groups to change the way Police Scotland operates
Partnership Working	A collection of projects to support Police Scotland work effectively with partner agencies to share information, evidence and case files
Forensics & Intelligence, Cyber & Overt	A collection of projects that will deliver specialist technology solutions in Forensics & Intelligence and Cyber & Covert
Public Contact	A collection of projects that will deliver improvements in how Police Scotland manages contact with the public
Support Services	A collection of projects that will deliver technology related change projects to support services, e.g. finance, procurement and HR
Technology & Infrastructure	A collection of projects that will deliver improvements to the core technology infrastructure of Police Scotland.

100 day Plans – defining the transition one projects

The diagram below provides a high level overview of the key projects for each Transition stage.



Technology Transformation Themes - candidate projects

The candidate projects developed for the SOBC have been mapped to the Technology Transformation Themes below.

Core Policing	Strategy & Innovation	Partnership Working	Forensics & Intelligence, Cyber & Overt	Public Contact	Support Services	Technology & Infrastructure
SD1 Core Operational Policing	SD13 Digital Citizen & Digital Partner	SD4 Digital Evidence Platform	SD11 Forensic Specialist Systems	SD8 Transforming Public Contact	SD6 Back Office Solutions	SD5 Core Business Solutions
SD2 National Systems Integration	Inf6 Intelligent Automation RPA	Inf4 External Integration Platform	SD14 Cyber Specialist Solutions	SD9 Enhanced Mobile		SD7 Maintaining Core Business Activity
SD3 Mobile Solutions	Data9 Analytics	INf7 Remote Access	SD15 Public Protection & Analytics			Inf1 C3 Infrastructure
SD16 Federated Search						Inf2 Network Modification & Standardisation
Data1 Data, Analytics & GDPR Maturity						Inf3 Operational Integration Platform
Data2 GDPR Compliance and Remediation						Inf5 Maintain Core Infrastructure
Data3 Data Governance and Operating Model						DCOM Core Decommissioning
Data4 Data Discovery						Data7 Technology Procurement
Data5 Data Quality Remediation and Management						Data8 Data Warehousing and Reporting
Data6 Data Migration						
Data9 Analytics						

Transition 1 Priorities

100 Day Workstream Plans

Objectives

The objective of the 100 Day Plan is to deliver the following

1. Project initiation activity completed for all Transition 1 projects
2. Resources secured to commence Transition 1 projects
3. Outline Business Case approved with funding secured to deliver Transition 1 activity.

This section describes the activity and resources required to deliver each of the Programme Workstreams

1. Programme Management
2. Solution Design
3. Infrastructure
4. Information & Data
5. Operating Model
6. Commercial Case
7. Business Change

N.B The proposed programme timelines require to be mapped to Governance cycles and arrangements.

Workstream 1 – Programme Management

Phase	Initiation Weeks 1 - 4	Programme Definition Weeks 5 - 7	Programme Design Weeks 8-10	Finalisation Weeks 11-13
Activities	► Mobilise programme team and PMO ► Define programme roles and responsibilities ► Develop deliverable plan and agree responsibilities ► Agree and define 100 day and Transition 1 governance approach ► Develop resource schedule and portfolio of programme templates ► Build PMO pack using existing Police Scotland artefacts ► Establish and run weekly governance forums **Business Case** ► Create template for OBC for Programme Theme ► Run tutorials for Programme Themes to develop SOBC ► Develop Strategic, Economic & Commercial Case OBC	► Work with Programme Themes to integrate plans to develop programme plan ► Develop governance approach for review and comment ► Liaise with Finance to develop programme reporting requirements ► Develop Programme Dependency plans ► Support the critical evaluation of all current activity associated with Transition 1 projects ► Run weekly governance forums **Business Case** ► Develop Commercial Case ► Liaise with Commercial Workstream to develop commercial strategy ► Provide interim update to DCO & CFO	► Finalise Programme Governance Framework with Executive Team ► Define and agree programme quality standards ► Refine Programme dependencies ► Coordinate development of Technology Theme OBCs ► Run weekly governance forums **Business Case** ► Refine Business Case costs and benefit model ► Liaise with workstreams to refine economic, commercial and management cases for OBC	► Finalise Transition 1 Programme Plan ► Finalise and review Project PIDs ► Run weekly governance forums ► Prepare and facilitate governance gate review ► Transition 1 Resource plan developed **Business Case** ► Finalise five case model ► Issue OBC for approval
Deliverables	► Programme Initiation Document (PIDs) ► Programme Kick Off	► Programme Plan ► Programme Resource Schedule	► Programme Governance ► Programme Controls ► Programme Quality Plan	► Programme Management Office established. ► Outline Business Case
Resources	► 1 x Programme Manager ► 1 x PMO Manager ► 2 x PMO Analysts ► 1 x Business Case Lead ► 1 x Business Case Support			

Workstream 2 – Solution Design

Phase	Initiation Weeks 1 - 4	Programme Definition Weeks 5 - 7	Programme Design Weeks 8-10	Finalisation Weeks 11-13
Activities	**Initiation** ► Mobilise project team, including clarification of scope, stakeholder analysis and planning. ► Map the current Core Operational Solutions and National Solutions to develop high level solution & integration assessment ► Agree design and governance approach ► Specific solution projects/activities Supported : ► Core Operational Solution ► Mobile ► National Solutions Integration ► Defining Digital Evidence Platform ► Prioritise Core Business Projects ► Support OBC definition	**Develop** ► Identify decommissioning opportunities ► Support any Soft Market Engagement required to baseline costs ► Support the development of the high level target architecture for each in scope project and create an overarching Solution Target Architecture Design ► Identify high level solution requirements & dependencies. ► Work with Information Workstream to establish data migration approach	**Design** ► Understand and define resource models and implementation timescales ► Work with Business Change to support impact analysis and business change costs ► Define internal development and integration costs ► Work with Infrastructure Team to model infrastructure requirements and dependencies	**Delivery Portfolio & Business Case** ► Define Transition one delivery portfolio ► Support development of individual Project Initiation Documentation
Deliverables	► Define Scope & Prioritisation ► Identify Risks & Issues ► OBC Definition	► High Level Target Architecture ► HL Current State Solution/Integration Assessment ► Development requirements ► Technical delivery approach options	► Resourcing & Costs assessment ► Preferred Delivery & Technical approach Identified ► Transition one Solution Architecture	► Support production of Business Case(s) ► Transition one Delivery Portfolio
Resources	► 1 x Enterprise Architect ► 2 x Solution Architects ► 2 x Application Architects			

Workstream 3 – Infrastructure

Phase	Initiation Weeks 1 - 4	Programme Definition Weeks 5 - 7	Programme Design Weeks 8-10	Finalisation Weeks 11-13

Activities	**Initiation**
	► Mobilise project team, including clarification of scope, stakeholder analysis and planning.
	► Agree design and governance approach
	► Specific Infrastructure Projects / Activities Supported :
	  ► Network Modification & Standardisation
	  ► Maintaining Core Infrastructure
	  ► Define Decommissioning Workstream
	► Support OBC definition
		Develop
		► Identify initial decommissioning opportunities
		► Map the current Core Operational Solutions and National Solutions technical requirements to establish Infrastructure requirements
			Design
			► Understand and define resource models and implementation timescales
			► Work with Commercial & Business (e.g. Estates) to understand impact analysis and costs
			► Work with Solutions Team to model infrastructure requirements and dependencies
				Delivery Portfolio & Business Case
				► Support Definition of Transition one delivery portfolio.
				► Support development of individual Project Initiation Documentation.

Deliverables	► Define Scope & Prioritisation ► Identify Risks & Issues ► OBC Definition	► Identify new requirements ► Current State Infrastructure assessment and alignment ► Delivery approach options	► Resourcing and costs assessment ► Transition one Infrastructure Architecture	► Support production of business case(s) ► Transition one Delivery Portfolio
Resources	► 2 x Infrastructure Architects			

Workstream 4 – Information & Data

Phase	Initiation Weeks 1 - 4	Programme Definition Weeks 5 - 7	Programme Design Weeks 8-10	Finalisation Weeks 11-13
Activities	► Mobilise project team, including clarification of scope, stakeholder analysis and planning ► Map current data solutions (data stores, reporting solutions etc.) ► Agree design and governance approach ► Data, Analytics, and GDPR maturity assessments ► Define target procurement items	► Identify decommissioning opportunities ► Procurement items proposed and support soft market testing where needed to baseline costs ► Identify high level solution requirements and dependencies ► Work with Solution Design Workstream to establish data migration approach	► Understand and define resource models and implementation timescales ► Work with Business Change to support impact analysis and business change costs ► Define internal development and integration costs for data solutions ► Work with Infrastructure Team to model infrastructure requirements and dependencies ► Procurement process agreed	► Support definition of Transition 1 delivery portfolio. ► Support development of individual Project Initiation Documentation. ► Initial data governance meeting taken place ► Procurement process commenced
Deliverables	► Define scope, prioritisation, risks and issues	► High level target architecture for data and information ► Delivery approach options ► Data Migration principles/approach agreed	► Resourcing and costs assessment ► Preferred delivery and technical approach Identified ► Transition one Solution Architecture	► Data remediation roadmap defined ► Support production of business case ► Transition one delivery portfolio
Resources	► 1 x Information Architect ► 1 x Governance & Compliance ► 1 x Information Management Lead ► 2 x Information Management Analysts			

Workstream 5 – Operating Model

Phase	Initiation Weeks 1 - 4	Programme Definition Weeks 5 - 7	Programme Design Weeks 8-10	Finalisation Weeks 11-13
Activities	**Initiation** ► Mobilise project team, including clarification of scope, stakeholder analysis and planning. ► Work with HR to develop detailed plan ► Develop, refine and agree scope of TOM Transition one ► Review and validate Conceptual Operating Model with key stakeholders ► Validate Case for Change and Design Principles, to be used as the guiding characteristics of the ideal Operating Model	► Work with Enterprise Architecture team to align future capabilities with Roadmap ► Develop high level options for delivery for consideration by PS Leadership teams ► High level Op Model workshop with leadership teams to review and identify preferred options ► Conduct a high level impact assessment in line with options ► Develop a supporting cost profile for the OBC	► Identify skills/ resourcing gaps required to support Transition one ► Develop preferred options ► Review IT-CMF and identify key areas of capability ► Review and agree the Job Descriptions of key roles (L1-L3) ► Refine transition states ► Complete detailed Phase one planning ► Develop draft organisation design and impact on current role descriptions/job families for Transition one ► Develop draft job descriptions for principal roles L1-L3 ► Develop Functional model level L1 – L3 to support transition one	► Develop resource profile for implementation phase
Deliverables	► Target End State Operating Model (Incl. Organisation Design to L3)	► Transition one – High Level Operating Model and Organisation Design ► Functional Model ► Interactions ► Role Definition ► Governance	► Organisation Capability Assessment ► Staffing Profile for Transition one ► Principal Roles for Transition one	► Transition One - Delivery Portfolio ► Transition One - Project Initiation
Resources	► 1 x Operating Model Leader ► 3 x Operating Model Design			

Workstream 6 – Commercial Case

Phase	Initiation Weeks 1 - 4	Programme Definition Weeks 5 - 7	Programme Design Weeks 8-10	Finalisation Weeks 11-13

Activities	► Capture and identify all procurement related activities from SOBC
	► Develop commercial case approach and overarching strategy to inform Transition One commercial activities.
	► Develop assessment tools and support for the Workstream Themes
		► Identify candidate procurement options
		► Work with the project delivery to determine the preferred commercial approach for
		  ► Core Operational Systems
		  ► Mobile Solutions
		  ► Integration
		  ► Infrastructure Arch
		  ► Data
		► Engage market and undertake soft market testing (as required)
			► Develop required procurement material to support the Transition One projects
			► Continue to engage market and undertake soft market testing (as required)
			► Develop commercial case for the OBC
			► Support project teams select the appropriate commercial and procurement option.
				► Refine commercial case
				► Initiate supporting commercial activities

Deliverables	► Transition One Commercial Case Strategy	► Commercial Case Plan	► Transition one - Procurement Preparation
			  ► Core Operational Systems
			  ► Mobile Solutions
			  ► Integration
			  ► Infrastructure Architecture
			  ► Data
			► 100 Day - Market Engagement / Soft Market Testing
				► Transition one - Delivery Portfolio
				► Transition one - Project Initiation

Resources	► 1 x Commercial Leader ► 3 x Commercial Analysts			

Workstream 7 – Business Change & Engagement

Phase	Initiation Weeks 1 - 4	Programme Definition Weeks 5 - 7	Programme Design Weeks 8-10	Finalisation Weeks 11-13

Activities	► Mobilise project team, including clarification of scope, stakeholder analysis and planning.
	► Liaise with change team to review Change Portfolio and Roadmap
	► Develop Business Change strategy for Transition One projects including:
	  ► Lessons Learnt
	  ► Business Readiness Management
	  ► Change Impact Analysis
	  ► Training and Development
	  ► Communications and Engagement
	  ► Deployment and Post Go- Live Support
	  ► Procedures and Business Continuity
		► Develop high level business change requirements and dependencies across programme and specifically for Transition One initiatives
		► Develop business change plan for all Business Change capabilities
		► Identify high level change resources required to support activities aligned to the overall Business Change Plan
			► Identification and analysis of Stakeholders and the subsequent development of a fit for purpose Engagement and Communication Plan
			► Liaising with Transition One delivery teams to develop change impact assessment and identify preferred implementation approach
			► Identify the people, processes, sites and system needed to own and manage Business Change
			► Develop high level monitoring, tracking and reporting mechanisms to ensure planned activities are executed to the right quality
				► Initiate initial Communications and Engagement activities aligned to Transition State One
				► Mobilise Change Network and resources in preparation for Transition State One

Deliverables	► Business Change Management Strategy	► Business Change Management Plan	► Transition One - Business Change Preparation ► Stakeholder Analysis ► Communications Schedule ► Change / Intervention Plan ► Change Network	
Resources	► 1 x Business Change Leader ► 4 x Business Change Analyst			

Risk Reduction Projects

Risk Reduction – Information & Data Quality

Phase	Initiation Weeks 1 - 4	Programme Definition Weeks 5 - 7	Programme Design Weeks 8-10	Finalisation Weeks 11-13
Activities	**Risk Reduction Activity** ► Data governance scope and operating model defined ► Define scope and focus for 100 day data discovery/mapping exercise ► Commence data mapping and building Master Data Index ► Draft quality standards / policies	**Risk Reduction Activity** ► Data governance principles and operating model agreed ► Targeted (sample) data quality activity commenced ► GDPR remediation work commenced	**Risk Reduction Activity** ► Data governance – data owners (POLE), stewards and responsibilities in place ► 100 day data mapping and DQ continuation ► GDPR remediation plan drafted	**Risk Reduction Activity** ► 100 day data discovery finalised and outer year roadmap to remediate proposed ► Initial data quality sampling complete and fed into 100 day plan ► GDPR remediation roadmap agreed and fed into 100 day plan
Deliverables	► Data and Analytics maturity reports ► GDPR maturity report and focus areas – against established framework ► Draft data governance framework ► Data mapping and quality framework and scope articulated ► Draft Master Data Index	► Data governance operating model finalised and documented ► Updated Master Data Index	► Updated Master Data Index ► GDPR remediation plan updated	► Data quality/estate dashboard delivered which identifies scale of effort and prioritises data quality areas ► Updated Master Data Index ► GDPR support (100 days) complete
Resources	► 1 x Data Leader ► 1 x Data Maturity & Gov Op Model lead ► 1 x Data Maturity & Governance Model ► 6 x Data Discovery & Data Quality ► 2 x GDPR Assessment (50%)			

Risk Reduction – Market Scanning & Engagement

Phase	Initiation Weeks 1 - 4	Programme Definition Weeks 5 - 7	Programme Design Weeks 8-10	Finalisation Weeks 11-13

Activities	► Commercial analysts assigned to procurement to be mobilised.
	► Supply market per procurement to be identified and defined – e.g. number of suppliers, size of the market, cost drivers, ease of comparison, clear pricing.
		► Assess route to market options;
		► Engagement with relevant functional business areas to ensure minimisation of misunderstood potential technical requirements
			► Collate tools to analyse potential procurement options, such as:
			  ► Porters 5 Forces
			  ► Supplier Capability Assessment
			  ► Total Cost of Ownership
			  ► Identification of key saving levers.
			► Develop RAID log for each potential procurement
				► Collate evaluation tools;
				► Begin mobilisation of transition two projects.
				► Horizon scanning to ensure any risks around market/product failure are identified

Deliverables	► Supplier market matrix per procurement	► Analysis driven evaluation of suppliers	► RAID log	► Horizon scanning assessment
Resources	► 1 x MS&E Lead ► 2 x MS&E Analysts			

Risk Reduction – Business Change Readiness

Phase	Initiation Weeks 1 - 4	Programme Definition Weeks 5 - 7	Programme Design Weeks 8-10	Finalisation Weeks 11-13
Activities	► Mobilise team ► Develop Business Change readiness approach ► Review, incorporate and refresh previous/ existing business change readiness ► Define key principles	► Test and refine current state readiness assessments and refresh as required ► Build profile of readiness aligned to proposed rollout ► Develop scenarios and use cases with each of the Transition one projects and profile the impact of change. ► Workshops and focus groups with staff groups to refine key principles of approach ► Liaise with corporate communications and HR & OD to develop	► Review readiness assessment with key stakeholders ► Identify key risks and develop mitigation pans and approaches ► Inform Business Change and Engagement Workstream – refine key communications message ► Profile key changes across operations and support staff ► Work with programme team to develop OBC	► Refine input to OBC ► Finalise and agree Transition One change readiness plan.
Deliverables	► Change Readiness Approach	► Business Change Plan	► Business Change Readiness Assessment – Transition one	► Business Change Readiness Plan– Transition one
Resources	► 1 x Business Change Lead ► 3 x Business Change Readiness			

Appendix A Technology Transformation Themes

Core Policing (i)

Candidate Project		Change Portfolio Tracker			Current ICT Programme of Work	
Project ID	Project Name	Change Portfolio ID	Portfolio Name	Programme Name	ICT Project ID	ICT Project Name
SD1	Core Operational Solutions	59	Core Operating Solutions (COS)	Digitally Enabled Policing	ICT34	Digitally Enabled Policing - Core Operational Solutions (COPS)
		33	Criminal Justice Productions Remodelling	Custody and CJ Services	ICT08	Productions remodelling to include new computerised application for production recording.
		35	Speed Awareness	Custody and CJ Services	ICT09	Speed Awareness Courses introduction in Scotland, including a new Central Ticket Office processing application
					ICT28	iDAP Development
					ICT69	iVPD development
					ICT84	Pensys/Pentip Replacement - National Solutions Integration. Pentip - HO Solution.
					ICT70	Stop and Search Development
		13	National Intelligence System	Digitally Enabled Policing		-
		32	Criminal Justice Services Division Remodelling	Custody and CJ Services		-
			Road Traffic Collisions (CRASH)			-
SD2	National Solutions Integration	6	ANPR	Other	ICT14	ANPR (National ANPR Service) ITT and Implementation
		38	Emergency Services Mobile Communications Project (ESCMP)	Other	ICT11	Emergency Services Mobile Comms Project (ESMCP)
					ICT27	EMS/STORM Unity Integration
					ICT83	NLEDS
					ICT67	Disclosure Scotland - PVG Replacement being sought
					ICT42	COPFS
					ICT84	Pensys/Pentip Replacement
		51	Criminal Justice Records Management	Custody and CJ Services		

Core Policing (ii)

Candidate Project		Change Portfolio Tracker			Current ICT Programme of Work	
Project ID	Project Name	Change Portfolio ID	Portfolio Name	Programme Name	ICT Project ID	ICT Project Name
SD3	Mobile Solutions	58	Mobile Working	Digitally Enabled Policing	ICT10	Mobile
		37	Body Worn Video	Digitally Enabled Policing		Strategic rollout target at delivery of most immediate frontline benefits - i.e. Firearms Unit and TASER.
					ICT86	Pilot to test Mobile Custody Solutions at Kittybrewster - remove this.
Data1	Data, Analytics and GDPR Maturity Assessment					
Data2	GDPR Compliance and Remediation					
Data3	Data Governance Operating Model	39	Data Governance and Insight	Other	ICT65	Master Data Management
Data4	Data Discovery				ICT53	General Data Protection Regulation security assessments / gap analysis
Data5	Data Quality Remediation and Management					
Data6	Data Migration					

Partnership Working

Candidate Project		Change Portfolio Tracker			Current ICT Programme of Work	
Project ID	Project Name	Change Portfolio ID	Portfolio Name	Programme Name	ICT Project ID	ICT Project Name
Inf7	Refresh Remote Access and Secure Collaboration Service					

Technology and Infrastructure (i)

Candidate Project		Change Portfolio Tracker			Current ICT Programme of Work	
Project ID	Project Name	Change Portfolio ID	Portfolio Name	Programme Name	ICT Project ID	ICT Project Name
SD7	Maintaining Core Business Activity				ICT26	Multiple SharePoint migration
					ICT29	Criminal History System (CHS) refresh
					ICT18	British Transport Police Integration
					ICT21	Windows 10 Creator Upgrade
					ICT22	Blackberry Upgrade
					ICT48	Audit Log Viewer upgrade
					ICT97	Court Scheduler
					ICT51	CMDB development and configuration
					ICT54	Centurion upgrade
					ICT55	Asset Manager upgrade
					ICT80	CLIO upgrade
					ICT37	Pinnacle (Accommodation move)
					ICT32	Pegasus Consolidation
					ICT06	TASER
					ICT39	ACU Interview recording
		55	Telematics	Project	ICT17	Telematics
					ICT57	LanDesk Development - ITConnect/PAConnect/HRConnect
					ICT59	PINS Website upgrade
					ICT74	Tranman Upgrade
					ICT89	Chronicle (public order module)
					ICT95	Password Manager
					ICT78	Video for Vulnerable People (child protection)
					ICT92	Technical Surveillance Unit (Technology Refresh) PPA - MCBA
					ICT98	SCoPE development

Appendix B
RACI

RACI 1/5

100 Day Plan Deliverables	Responsible	Accountable	Consulted	Informed
Programme Management				
Programme Initiation Document	Third Party	Third Party		
Programme Plan	ES/PS	Third Party		
Programme Governance	ES/PS	PS		
Programme Controls	Third Party /PS	Third Party		
Programme Quality Plan	ES/PS	Third Party		
Programme Financial Model	ES/PS	Third Party		
Programme Resource Schedule	ES/PS	Third Party		
Programme Management Office Est.	ES/PS	PS		
DD&I Outline Business Case	ES/PS	Third Party		
Theme Business Cases (OBC)	PS	PS	Third Party	

100 Day Plan Deliverables	Responsible	Accountable	Consulted	Informed
Solution Delivery				
Define Scope and Prioritisation	PS	Third Party		
Identify Risk and Issues	PS	PS	Third Party	
High-Level Target Architecture	Third Party	Third Party	PS	
High-Level Current State Solution/Integration Assessment	Third Party	Third Party	PS	
Development Requirements	PS	PS	Third Party	
Technical delivery approach options	PS	PS	Third Party	
Resourcing and costs assessment	PS/Third Party	Third Party	Third Party	
Preferred delivery and technical approach identified	PS	PS	Third Party	
Transition State One Solution Architecture	PS/Third Party	Third Party	PS	
Support production of Business Case	PS/Third Party	PS	Third Party	
Transition State One Delivery Portfolio	PS/Third Party	PS	Third Party	

Key: Third Party – External Support
PS – Police Scotland

RACI 2/5

100 Day Plan Deliverables	Responsible	Accountable	Consulted	Informed
Infrastructure				
Define Scope and Prioritisation	Third Party	Third Party	PS	
Identify Risks and Issues	ES/PS	Third Party	PS	
Identify new requirements	PS		Third Party	
Current State Infrastructure assessment and alignment	Third Party	Third Party	PS	
Delivery approach options	PS	PS	Third Party	
Resourcing and costs assessment	PS	PS	Third Party	
Transition State One infrastructure architecture	Third Party	Third Party	PS	
Support production of outline business case	PS/ES	PS	Third Party	
Transition State One delivery portfolio	PS	PS	Third Party	

100 Day Plan Deliverables	Responsible	Accountable	Consulted	Informed
Information & Data				
Define scope, prioritisation, risk and issues	Third Party	Third Party	PS	
High-level target architecture for data and information	Third Party	Third Party	PS	
Delivery approach options	Third Party	Third Party	PS	
Data migration principles/approach agreed	PS	Third Party		
Resourcing and costs assessment	PS	PS	Third Party	
Preferred delivery and technical approach identified	PS	Third Party		
Transition State One Solution Architecture	Third Party	Third Party	PS	
Data remediation roadmap defined	PS	Third Party		
Support production of business case	PS	PS	Third Party	
Transition State One Delivery Portfolio	PS	PS	Third Party	

Key: Third Party – External Support
PS – Police Scotland

RACI 3/5

100 Day Plan Deliverables	Responsible	Accountable	Consulted	Informed
Operating Model & Organisation Design				
Target End State Operating Model (Incl. Organisation Design to L3)	ES/PS	Third Party		
Transition 1 - Operating Model and Organisation Design	ES/PS	Third Party		
Functional Model	ES/PS	Third Party		
Organisation Design	ES/PS	Third Party		
Role Definition	ES/PS	Third Party		
Governance	ES/PS	Third Party		
Organisation Capability Assessment	ES/PS	Third Party		
Staffing Profile	ES/PS	Third Party		
Principal Roles	ES/PS	Third Party		
Transition 1 - Delivery Portfolio	PS	PS	Third Party	
Transition 1 - Project Initiation	PS	PS	Third Party	

Key: Third Party – External Support
PS – Police Scotland

RACI 4/5

100 Day Plan Deliverables	Responsible	Accountable	Consulted	Informed
Commercial & Procurement Management				
Commercial Strategy	PS	PS		Third Party
Commercial & Procurement Plan	PS	PS		Third Party
Transition 1 - Procurement Preparation	PS	PS		Third Party
Core Operational Systems	PS	PS		Third Party
Mobile Solutions	PS	PS		Third Party
Integration	PS	PS		Third Party
Infrastructure Arch	PS	PS		Third Party
CCL (Client Side)	PS	PS		Third Party
100 Day - Market Engagement / Soft Market Testing	PS	PS		Third Party
Transition 1 - Delivery Portfolio	PS	PS		Third Party
Transition 1 - Project Initiation	PS	PS		Third Party

Key: Third Party – External Support
PS – Police Scotland

RACI 5/5

100 Day Plan Deliverables	Responsible	Accountable	Consulted	Informed
Business Change Management				
Business Change Management Strategy	ES/PS	Third Party		
Business Change Management Plan	ES/PS	Third Party		
Transition 1 - Business Change Preparation	ES/PS	PS		
Stakeholder Analysis	ES/PS	PS		
Communications Schedule	ES/PS	PS		
Change / Intervention Plan	ES/PS	PS		
Change Network	ES/PS	PS		
100 Day - Business Change Events / Communications	PS	PS	Third Party	
Transition 1 - Delivery Portfolio	PS	PS		
Transition 1 - Project Initiation	PS	Third Party		

Key: Third Party – External Support
PS – Police Scotland

Police Scotland
Digital Data & ICT Strategy Review

Portfolio of Projects

23rd March 2018

Version and Change History

Version	Date	Comments
V1 00-V1 04	2 March – 14 March 2018	Internal Drafts
V1 05	19 March 2018	Updates following 14th ICT SMT Review Meeting
V1 06	19 March 2018	Updates following team meeting on 19th: format changes to include tower, addition of resources from costing sheet, input of 2 line summary
V1 07	20 March 2018	Internal draft
V2 00	23 March 2018	Draft issued for review
V2 01	28 March 2018	Updates following Corporate Services Presentation

Table of Contents

Project No	Workstream	Programme Name
PM1	Programme Management	Programme Control & Governance
PM2	Programme Management	Business Case Management
SD1	Core Operational Solutions	Solution Delivery
SD2	National Systems Integration	Solution Delivery
SD3	Mobile Solutions	Solution Delivery
SD4	Digital Evidence Platform	Solution Delivery
SD5	*Absorbed into other projects*	Solution Delivery
SD6	Back Office Solutions	Solution Delivery
SD7	Maintaining Core Business Activity	Solution Delivery
SD8	Transforming Public Contact	Solution Delivery
SD9	Enhanced Mobile	Solution Delivery
SD10	*Absorbed into other projects*	Solution Delivery
SD11	*Absorbed into other projects*	Solution Delivery
SD12	Digital Citizen and Digital Partner	Solution Delivery
SD13	Cyber Specialist Solutions	Solution Delivery
SD14	*Absorbed into other projects*	Solution Delivery
SD15	Federated Search	Solution Delivery
Inf1	National ICCS	Infrastructure
Inf2	Network Modification / Standardisation	Infrastructure
Inf3	Operational Integration Platform	Infrastructure
Inf4	External Integration Platform	Infrastructure
Inf5	Maintaining Core Infrastructure	Infrastructure
Inf6	Intelligent Automation RPA	Infrastructure
Inf7	Remote Access and Secure Collaboration Service	Infrastructure
Inf8	Workforce Monitoring Software	Infrastructure
DCOM1	Core Systems Decommissioning	Decommissioning
Data1	Data and Information Maturity Assessment	Information & Data
Data2	GDPR Compliance and Remediation	Information & Data
Data3	Data Governance Operating Model	Information & Data

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Project No	Workstream	Programme Name
Data4	Data Discovery	Information & Data
Data5	Data Quality Remediation and Management	Information & Data
Data6	Data Migration	Information & Data
Data7	Technology Selection and Procurement Support	Information & Data
Data8	Data Warehousing and Reporting	Information & Data
Data9	Analytics	Information & Data
TOM1	Operating Model Design and Implementation	Operating Model & Organisation
Comm1	Procurement & Commercial Management	Commercial & Procurement
Comm2	Contract Management	Commercial & Procurement
BC1	Business Change Management	Business Change Management
BC2	Business Change Implementation	Business Change Management

Programme Management

Programme Control & Governance

Ref: PM1

Project Description

This programme of work will run alongside all the Workstreams and captures all activities required to manage, resource, finance, and deliver against the plan.

Timescale & Resources

Transition State: Transition State 1, 2, and 3

Duration: 5 years

Resources Required: 14 – 21 FTE over years 1, 2, 3, 4, and 5

Project Activities, Delivery Objectives and Comments

- Mobilise programme team and PMO
- Define programme roles and responsibilities
- Develop deliverable plan, agree responsibilities
- Develop resource schedule and portfolio of programme templates
- Build PMO pack using existing Police Scotland artefacts
- Establish and run weekly governance forums

Tower

N/A

Key Assumptions

- Resources are available to complete the required work in the necessary timeframe
- Clear communication between the workstreams
- Regular engagement with Workstream teams so as to enable problem identification to take place in a timely manner.

Key Risks

- There is a risk that ineffective Governance will negatively impact Programme timescales and costs. This may cause the resulting delivered solution to not meet the needs of Police Scotland.
- There is a risk that some dependencies are not identified and/or understood. This is further complicated by the fact that a change in business priority will result in changes to dependent or related projects so that the dependencies between them are not aligned.

Dependencies

- Dependencies upon all workstreams to participate and respond to control and governance.

Programme Management
Business Case Management

Ref: PM2

Project Description

This programme of work manages the development of an Outline Business Case (OBC). Throughout the project it will work with the other workstreams to gather information for this deliverable.

Timescale & Resources

Transition State: Transition State 1

Duration (months): 24

Resources Required: 6-9 FTE across Years 1 & 2

Project Activities, Delivery Objectives and Comments

- Develop Strategic, Economic & Commercial Case OBC
- Work with the Commercial Team to develop commercial strategy
- Programme management work to liaise with workstreams to refine economic, commercial, management case for OBC

Tower

N/A

Key Assumptions

- Workstreams will release requested information in a timely manner
- The information given by Workstreams and other Police Scotland teams will be accurate
- Current state of legacy and technical debt is accurate
- 40% Abstraction is accounted for in all benefit calculations

Key Risks

- There is a risk that there has been insufficient engagement with frontline officers which leads to misalignment between technical solutions and business needs. The impact of this is that benefits stated in the Business Case are not recognised as solutions target perceived frontline challenges and not recorded frontline challenges.

Dependencies

- Dependencies on all Workstreams to have clear governance and recording

Solution Delivery
Core Operational Solutions

Ref: SD1

Project Description

A single integrated solution delivering core capabilities including Case Reporting, Crime and Intelligence, and a centralised POLE store. This will link with Custody & C3.

Timescale & Resources

Transition State: Transition State 1

Duration: 24 – 36 months

Resources Required: 13-19 FTE in Year 1, 28-42 FTE in Years 2 & 3

Project Activities, Delivery Objectives and Comments

- Single source of truth – Operational POLE store
- Enables mobile access in the field
- Reduces creation of duplicate nominals and other operational data
- A single integrated solution will deliver the following core capabilities: Crime & Intelligence, Case Reporting, Statements, Citations, Sudden Death, Operational Solutions Warrants, Fixed Penalty, Missing Persons, Productions, Lost & Found, Cyber Crime Management & RTC
- The solution will link with other core operational solutions including Custody and C3
- The solution will be mobilised from day 1

Tower

Core Policing

Key Assumptions

- The existing partially deployed Unify solution can be commercially re-deployed across all Police Scotland without a full selection / procurement exercise.
- Deployment will follow a geographically based capability model.

Key Risks

- The existing legacy landscape hides complexities which have the potential to significantly extend timescales should they prove problematic
- Migration and collation of legacy data
- Business change impact

Dependencies

- A suitable data migration and cleansing approach can be agreed and undertaken within the necessary timescales.
- The current issues with productions are mitigated to sufficient level to enable data migration into the new system

Solution Delivery
National Systems Integration

Ref: SD2

Project Description

Project to integrate existing national solutions with the new Core Operational Solution.

Tower

Core Policing

Timescale & Resources

Transition State: Transition State 1

Duration: 24-36 months

Resources Required: 6 – 9 FTE in Years 1, 2, and 3

Key Assumptions

- New Core Operational Solution is capable and extensible to enable integration with national solutions

Project Activities, Delivery Objectives and Comments

- Officers / end users no longer have to re-key or navigate a catalogue of separate solutions to complete tasks
- Integrate existing national solutions with new Core Operational Solution to deliver a seamless end-to-end transactional journey.

Key Risks

- Some existing applications may not align with integration approach or business processes

Dependencies

- Centralised core operational solution
- POLE

Solution Delivery
Mobile Solutions

Ref: SD3

Project Description

Deployment of mobile technologies which gives access to core operational apps and business productivity applications.

Timescale & Resources

Transition State: Transition State 1

Duration: Phase 1 of this project will take 12 months, and Phase 2 of the project will take 30 months

Resources Required: 5-7 FTE in Year 1, 12-18 FTE in Year 2, 6-9 FTE in Year 3

Project Activities, Delivery Objectives and Comments

- Phase 1 : Reduced compliance issues
- Phase 1: A device management platform that can support PS for the next 3 - 5 years
- Phase 2 can be deployed alongside COS deployment and reduce overall abstraction and business disruption
- Phase 1 of Mobile will uplift the exiting brownfield deployment and establish a compliant device management platform. This will enable PS to address some aspects of its legacy estate compliance issues. (TBC)
- Phase 2 of Mobile will be deployed as an intrinsic part of the centralised core operational solution.

Tower

Core Policing

Key Assumptions

- Phase 1 can be completed in advance of Phase 2 / COS deployment

Key Risks

- The existing legacy landscape hides complexities which have the potential to significantly extend timescales for COS and mobile phase 2 should they prove problematic.
- There is a risk that there has been insufficient engagement with frontline officers which leads to misalignment between technical solutions and business needs.
- There is a risk that the benefits associated with the introduction of mobile devices are reduced because staff are inadequately trained and/or cannot operate the device.

Dependencies

- A suitable digital evidence platform is available to capture and manage media captured through these devices
- Core operational solution

Solution Delivery
Digital Evidence Platform

Ref: SD4

Project Description

Provision of a digital solution to allow evidence captured by frontline officers, forensics, and general public to be shared electronically with partner agencies.

Timescale & Resources

Transition State: Transition State 1

Duration: 24 months

Resources Required:

Project Activities, Delivery Objectives and Comments

- Digital media, is unique and not duplicated within PS / National estate
- Media can be managed and shared without the need for duplication or manual intervention

Tower

Partnership Working

Key Assumptions

- Can be provisioned according to National solution requirements & solution architecture

Key Risks

- Complex stakeholder environment leading to many disparate requirements
- Prolonged governance cycles may delay delivery

Dependencies

- Scottish Government Digital Evidence Sharing Capability (DESC) was passed in March. Scottish Government see Police Scotland as a key partner.

Solution Delivery

Back Office Solutions (Out Of Scope)

Ref: SD6

Output Description

Tower

Key Assumptions

Timescale & Resources
Transition State: Duration: Resources Required:

Key Risks

Project Activities, Delivery Objectives and Comments

Dependencies

Solution Delivery
Maintaining Core Business Activity

Ref: SD7

Output Description
Projects required to maintain the availability and performance of existing core operational and business applications.

Tower
Technology and Infrastructure

Timescale & Resources
Transition State: Transition State 1 Duration: Resources Required:

Key Assumptions

Key Risks

List of existing ICT Projects

ICT Project ID	ICT Project Name
ICT26	Multiple Sharepoint migration
ICT29	Criminal History System (CHS) refresh
ICT18	British Transport Police Integration
ICT21	Windows 10 Creator Upgrade
ICT22	Blackberry Upgrade
ICT48	Audit Log Viewer upgrade
ICT97	Court Scheduler
ICT51	CMDB development and configuration
ICT54	Centurion upgrade
ICT55	Asset Manager upgrade
ICT80	CLIO upgrade
ICT37	Pinnacle (Accommodation move)
ICT32	Pegasus Consolidation
ICT06	TASER
ICT39	ACU Interview recording
ICT17	Telematics
ICT57	LANDesk Development - ITConnect/PAConnect/HRConnect
ICT59	PINS Website upgrade
ICT74	Tranman Upgrade
ICT89	Chronicle (public order module)
ICT95	Password Manager
ICT78	Video for Vulnerable People (child protection)
ICT92	Technical Surveillance Unit (Technology Refresh) PPA - MCBA
ICT98	SCoPE development

Dependencies

Solution Delivery
Transforming Public Contact

Ref: SD8

Project Description

A new command and control capability, including advanced contact features which is integrated with public facing self-service portals.

Timescale & Resources

Transition State: Transition State 2

Duration: 3 years

Resources Required: 8-12 FTE in Year 1, 15-22 FTE in Years 2 & 3

Project Activities, Delivery Objectives and Comments

- Enables key business benefits of LAP
- A new command and control capability, including advanced contact management features, integrated with public facing self service portals and channels.
- The solution will be tightly integrated with the core operational solution(s) to facilitate end to end transactional journeys.
- The solution will enable the deployment of advanced mobile capabilities (e.g. silent dispatch)

Tower

Public Contact

Key Assumptions

- The National (digital) ICCS and associated telephony infrastructure project is completed.

Key Risks

- To deliver the full suite of necessary capabilities multiple solutions may be required which will increase the overall complexity and cost envelope.

Dependencies

- Due to the end of the existing C3 commercial contract in three years, the project must overlap with COS and include integration requirements with the new solution.
- National ICCS (Inf1)

Solution Delivery
Enhanced Mobile

Ref: SD9

Project Description

Enables C3 integration (e.g. Silent dispatch) and further CRM and citizen engagement tools to front line officers.

Timescale & Resources

Transition State: Transition State 2

Duration: 12 months

Resources Required:

Project Activities, Delivery Objectives and Comments

- Silent dispatch
- Digital citizen engagement with front line officers

Tower

Public Contact

Key Assumptions

- New C3, CRM, and digital citizen self-service channels are implemented

Key Risks

- Conjunction of Emergency Services Network (ESN) and device obsolescence will significantly increase costs and technical complexity.

Dependencies

- Transforming Public Contact (SD8)
- Core Operational Solution (SD1)
- Mobile solutions (SD3)

Solution Delivery
Digital Citizen & Digital Partner

Ref: SD12

Project Description

Enables sharing and receiving of information with and from partners including local authorities, care organisations, and facilitating community oriented problem-solving. Digital citizen will allow the public to self-serve.

Timescale & Resources

Transition State: Transition State 2

Duration: 18 months

Resources Required:

Project Activities, Delivery Objectives and Comments

- Mobile integration
- COS integration
- Sharing with criminal justice partners
- Supports public upload of digital media
- Content management

Tower

Forensics and Intelligence, Cyber and Covert

Key Assumptions

- Business agrees service catalogue made available to public
- Partners are consulted
- Business articulates new ways of working worth partners

Key Risks

- Partners are not capable of utilising or integrating with systems/solutions
- There is a risk that technical requirements needed to integrate with Criminal Justice Partners are not made available in a timely manner, which may result in Partners refreshing own technology in solos – resulting in a disconnected approach.

Dependencies

- Transforming Public Contact (SD8)
- Core Operational Solution (SD9)
- Mobile Solutions (SD3)

Solution Delivery
Cyber Specialist Solutions

Ref: SD13

Project Description
Deployment of specialist cyber tools and capabilities

Tower
Forensics and Intelligence, Cyber and Covert

Key Assumptions

- Cyber tools and capabilities are not integrated with any PS infrastructure or solutions
- Suitable segmentation can be achieved on PS network
- Duplication of systems is removed
- AI capabilities align with requirements

List of existing ICT Projects

ICT Project ID	ICT Project Name
ICT79	CyberDefense strategy, initiatives development, and gap analysis
ICT93	Digital Device Investigations PPA - (phone analysis)
ICT35	Rosie Terminals (internet investigations portal) Procurement
ICT15	Cybercrime Forensic Infrastructure
ICT91	Covert Human Intelligence Sources (CHIS) PPA to FBC

Key Risks

Project Activities, Delivery Objectives and Comments

- Forensics and cyber systems will be implemented according to the current air-gapped approach.
- Both solution stacks will include targeted Artificial Intelligence (AI) capabilities to handle increasing work loads and demands on services.

Dependencies

Solution Delivery
Federated Search

Ref: SD15

Project Description

Ability to search once and retrieve all information across all operational systems which is relevant to query.

Includes capability to support audit trail searches and in the long term external sources of information.

Timescale & Resources

Transition State: Transition State 2

Duration: 12-18 months

Resources Required: Data and Information, and Core Operational Solutions Teams

Project Activities, Delivery Objectives and Comments

- Map data sources across organisation
- Will need to be exposed across the multiple user interfaces and device profiles which potentially impacts many solutions

Tower

Core Policing

Key Assumptions

- Assumes good quality data is available to support this functionality.

Key Risks

- Data is not of sufficient quality to provide salient search results.

Dependencies

- Core Operational Solution
- National Solutions Integration
- Established Data Governance Capability
- May require Data Warehouse platform to support federated search capability

Infrastructure
C3 Technology
(Sourced from existing Digital ICCS Business Case)

Ref: Inf1

Project Description

The procurement and implementation of a Digital Integrated Communications Control System (ICCS) considered critical to maintaining Police Scotland's essential Contact, Command, and Control business. Also includes Contact Assessment Model (CAM) and National Database Enquiry Unit (NDEA).

Timescale & Resources

Transition State: Transition State 1

Duration: 12-24 months

Resources Required:

Project Activities, Delivery Objectives and Comments

- Develop a Single Integrated Operating Model (C3)
- Improve response times and standards to public calls
- Improve access to services, allowing for speedier front-line response

Tower

Technology and Infrastructure

Key Assumptions

- Existing support and maintenance contracts can be extended at current known rates.
- Alternative solutions to account for ESN are considered out of scope of this assessment.
- Potential additional costs associated with hardware replacement assumed to be incorporated within maintenance and support costs. However, suppliers have indicated this may not be achievable although no alternative costings have been negotiated.

Key Risks

- Failure to invest the necessary time and resource to obtain a comprehensive understanding of business and user requirements may lead to new systems that are unable to support the preferred operating model, or optimise benefits
- There is a risk of a loss of critical services (incl. 999 emergency line) as a result of a failure to fully understand and cater for technical and other considerations whilst migrating to replacement systems.

Dependencies

- STORM Unity, Avaya Telephony, NICE Voice Recording, Airwave, ESN/ESMCP.

Infrastructure

Technology Modification/Standardisation

(Sourced from existing National Network Business Case)

Ref: Inf2

Project Description

Phase two of the National Network (Nat Net) project and go-to-market under the Crown Commercial Services (CCS) framework for a consolidated Wide Area Network (WAN).

Timescale & Resources

Transition State: Transition State 1

Duration: 12 months

Resources Required:

Project Activities, Delivery Objectives and Comments

- Create a modern, integrated, and appropriately scaled technology platform to support the force now and in the future.
- Combine the numerous and complex inherited legacy computer networks, currently made up of 11 individual 'WAN' (Wide Area Networks).
- As part of phase one of the National Network project (which is nearing completion), 11 high capacity data circuits known as the 'C3 high speed backbone' have been installed into core locations to supplement the SPN and provide maximum bandwidth, speed, and resiliency to C3.
- One of the aims is to help the encryption levels meet the agreed standards of Government and Home Office requirements as currently four regions do not meet this standard.

Tower

Technology and Infrastructure

Key Assumptions

- Suppliers will offer competitive, bespoke pricing for this exercise

Key Risks

- Reputational risk that confidentiality, integrity, and availability of data help within Police Scotland and SPA could be seriously compromised.
- Service Management: Due to a disparate approach and a lack of monitoring surrounding existing contracts, there is a risk that existing contracts will renew at higher rates, subsequently increasing ICT overheads.
- Service Delivery and Operational Risk: Due to an ageing infrastructure, there is a risk that future software developments and access to national applications will not perform as they should, resulting in staff being unable to complete duties that are application dependent.

Dependencies

- Availability of funds and appropriate sign off
- Availability of supplier resource to complete installations within desired timescales
- Availability of Police Scotland ICT and Contractor resources for the duration of the project.

Infrastructure
Operational Integration Platform

Ref: Inf3

Project Description

Implementation of platform(s) which enable the flexible integration of solutions and systems. The solution will enable PS to combine multiple solutions and present new services based on these integrations. For example a “Create Crime” service will be made available to mobile platforms and public self service channels. The “create once – use many” principles will simplify and reduce overall technical integration costs.

Timescale & Resources

Transition State: Transition State 1

Duration: 6 months

Resources Required:

Project Activities, Delivery Objectives and Comments

- Enables traditionally separated capabilities to be integrated as discrete services and consumed by end users through new solutions, platforms, and channels
- Procurement, Implementation, and Service(s) Design
- Project has no fixed timescales as landscape must reach SOA maturity to facilitate this class of solution

Tower

Technology and Infrastructure

Key Assumptions

- SOA architecture and solution design principles are adopted as a core design blue print for all solutions.

Key Risks

- Can be technically complex to manage

Dependencies

- Core Operational solution adhering to SOA principles
- Mobile adhering to SOA principles
- Transforming Public Contact adhering to SOA principles

Infrastructure
External Integration Platform

Ref: Inf4

Project Description

Implementation of platform(s) which enable the flexible integration of solutions and systems with external 3rd parties and services. The solution will enable PS to combine multiple solutions and present new services based on these integrations. For example a "Create Crime" service will be made available to mobile platforms and public self service channels. The "create once – use many" principles will simplify and reduce overall technical integration costs.

Timescale & Resources

Transition State: Transition State 1

Duration: 18 months

Resources Required:

Project Activities, Delivery Objectives and Comments

- Enables exchange of information and services at a transactional level with external 3rd parties and providers of services.
- Procurement, Implementation, and Service(s) Design
- Project has no fixed timescales as landscape must reach Solution Oriented Architecture (SOA) maturity to facilitate this class of solution

Tower

Partnership Working

Key Assumptions

- Technically similar to internal integration platform, just implemented in a more secure manner to accommodate the external nature of its interactions.

Key Risks

- Can be technically complex to manage.

Dependencies

- Core Operational solution adhering to SOA principles
- Mobile adhering to SOA principles
- Transforming Public Contact adhering to SOA principles

Infrastructure

Maintaining Core Infrastructure
(Sourced from existing ICT Core Tech Refresh Business Case)

Ref: Inf5

Project Description

Refresh of ICT core technologies considered critical to maintaining Police Scotland's essential business as usual (BAU) activities.

Timescale & Resources

Transition State: Ongoing

Duration: Ongoing

Resources Required: Varying over the life of project

Project Activities, Delivery Objectives and Comments

- Firewall Security
- Refresh of Network LAN, desktop technology, and server hardware
- Desktop technology refresh
- Server hardware refresh
- Management and monitoring tools
- Project Management delivery

Tower

Technology and Infrastructure

Key Assumptions

- Procurement frameworks are available to enable speedy purchases
- Assumption that there will be no other support/maintenance costs associated with this project other than the costs noted.

Key Risks

- There is a risk that sufficient and suitably skilled resources will not be allocated to the project which will compromise delivery, design, and implementation.
- There is a risk that the delivery timeline will not be met which will mean anticipated savings will not be realised.
- There is a risk that if the delivery timeline is not met, contracts will default to standard terms and conditions and costs will rise substantially.
- There is a risk that the Estates Strategy is not clearly defined for the project lifetime which will result in additional costs
- While awaiting funding availability, projected costs, particularly with hardware, will increase as technology demands change and the currency exchange market continues to fluctuate.

Dependencies

- ADEL, ALLIANCE, National Network (Inf 2)

Infrastructure
Intelligent Automation RPA

Ref: Inf6

Project Description

Deployment of a Robotic Process Automation (RPA) solution to improve efficiency.

Tower

Strategy and Innovation

Timescale & Resources

Transition State:

Duration:

Resources Required:

Key Assumptions

- Candidate processes can be identified for migration over to RPA

Project Activities, Delivery Objectives and Comments

- Identify Candidate processes
- Establish cost / benefit profile
- Test/ Pilot
- Implementation

Key Risks

- Candidate processes can not be sufficiently constrained within fixed business processes – i.e. require human decision making -and therefore are not suitable for automation.

Dependencies

- None

Infrastructure

Refresh Remote Access and Secure Collaboration Service

Ref: Inf7

Project Description

Introduction of a solution to allow partners & personnel to access business and productivity systems off-site. This programme of work will refresh the existing project.

Timescale & Resources

Transition State:

Duration:

Resources Required:

Project Activities, Delivery Objectives and Comments

- Enables temporary resources, contractors, and 3rd parties access to core business solutions.
- A new platform or combination of solutions which enable trusted external 3rd parties and partners to have remote access to PS core business solutions and services. This will ensure full collaboration and flexible ways of working is achievable, and does not hinder project progression.

Tower

Partnership Working

Key Assumptions

- Part of this project will be address the governance and security policies encompassing this type of access.

Key Risks

- Policy and procedures cannot be amended to be flexible enough to support the agility required.
- There is a risk that the benefits associated with the refresh of remote access and secure collaborative services are reduced because staff are inadequately trained and/or cannot operate the technologies.

Dependencies

- Agreement to amend policy and procedures to support this class of solution and the flexibility requirements.

Infrastructure
Workforce Monitoring Software

Ref: Inf8

Project Description

Provides enterprise level monitoring of users network and solution access, facilitating audit and compliance requirements. Solution will extend out to mobile devices as this will become the prime access channel for many front line officers.

Timescale & Resources

Transition State: Transition State One

Duration: 6-12 Months

Resources Required: Undetermined for technical roll-out and deployment support

Project Activities, Delivery Objectives and Comments

- Monitors all user access to any corporate and operational solutions.

Tower

Technology and Infrastructure

Key Assumptions

- Solution chosen will support Mobile Platform
- Procurement can be undertaken under the existing “insider threat monitoring and audit software” industry standard Vetting

Key Risks

- None Identified

Dependencies

- ADEL and ALLIANCE (Inf2)

Decommissioning
Core Systems Decommissioning

Ref: DCOM1

Project Description

Project to reduce the overall data held by Police Scotland and help remediate other compliance issues such as hardware, software, datacentres, and databases.

Timescale & Resources

Transition State: Transition States 1, 2, and 3

Duration: 5 years

Resources Required:

Project Activities, Delivery Objectives and Comments

- This programme of work will aim to reduce the legacy landscape in an effective and appropriate manner.
- It looks to increase PS compliance in data and security by decommissioning historic and now irrelevant systems.
- This will allow the release of resources in ICT which is currently operating at an overstretched capacity.

Tower

Core Policing

Key Assumptions

- Business will agree to decommission and fulfil its obligations to facilitate migrations.

Key Risks

- COS deployment complexities may elongate decommissioning timescales.
- Business is unwilling to release old systems and databases.
- Hoarding nature will act as a blocker to releasing associate benefits.

Dependencies

- All projects must feed into this Workstream, therefore there is a dependency on all other projects.
- Business must agree to decommissioning schedule in order to release timely and effective benefits.

Information and Data

Data, Analytics and GDPR Maturity Assessment

Ref: Data 1

Project Description

Detailed assessment of current and desired Data and Information maturity across the operating model (define, produce, consume, govern), including reporting, analytics, and compliance (e.g. GDPR). The assessment will consider in-flight and planned data initiatives (e.g. Demand and Productivity) to shape strategy, roadmap, priorities, and measures.

Timescale & Resources

Transition State: This project is expected to be executed fully prior to transition state one, as part of the first 100 days exercise.

Duration: 50 days.

Resources: 6 resources assumed to enable a much deeper assessment of across the full data operating model.

Project Activities, Delivery Objectives and Comments

- Data and Information maturity assessment and review.
- GDPR Readiness and '360 Degree' assessment.
- Refreshed Police Scotland Data and Information Strategy.
- Outputs will be used to support other data projects and inform operating model including governance.

Tower

Core Policing

Key Assumptions

- Police Scotland will allocate dedicated resource to supporting this project.
- Existing GDPR work will be input into CSF2.
- A single SRO for Information and Data Strategy will own and sign off on Data and Information Strategy.

Key Risks

- Suitable Police Scotland resources are not available to support execution as part of the 100 days exercise, thus delaying subsequent timescales and slowing the release of benefits to the organisation.

Dependencies

- Data Protection Reform – Internal Project

Information and Data
GDPR Compliance and Remediation

Ref: Data 2

Project Description

Execute activity to specifically address GDPR key risks and issues, and support Police Scotland toward compliance, including taking practical data remediation actions.

Timescale & Resources

Transition State: Transition 1

Duration: 2 years

Resources: 10 FTE in Year 1, 8 FTE in Year 2 to drive data remediation and management of key risks, issues and support Police Scotland's compliance.

Project Activities, Delivery Objectives and Comments

- GDPR Data Discovery and risk analysis.
- GDPR Improvement Programme - approach, roadmap, and quick wins signed off
- GDPR Improvement Programme - mobilised and work commenced.

Tower

Core Policing

Key Assumptions

- This project will dovetail with the Data Governance Operating Model, and align with approaches on data discovery, data quality, and remediation.
- GDPR compliance work will be increasingly embedded as business as usual activity during this project.

Key Risks

- Significant civil action activity against the Force may drive highly reactive approaches to resolution which may not support longer term compliance.
- Complexity of Police Scotland systems landscape may hamper scoping and effort estimation.

Dependencies

- Data, Analytics and GDPR Maturity Assessment (Data1)
- Should coordinate with GDPR Compliance and Remediation (Data2), Data Discovery (Data4), and Data Quality Remediation and Management (Data 5)

Information and Data
Data Governance Operating Model

Ref: Data 3

Project Description

Establish governance, principles, and controls around data and information including a data governance board to enable decision making and enforce ownership across key data assets

Timescale & Resources

Transition State: Transition State 1, 2, and 3

Duration: 5 years

Resources: 4 FTE in Year 1, 2 FTE in Year 2 and 1 FTE in Years 3-5, to set up and operate data governance forums and working groups, build and define roles / processes etc., as the data governance function becomes increasingly embedded into business as usual.

Project Activities, Delivery Objectives and Comments

- Define scope, operating model and responsibilities.
- Agree forum membership, measures and quorums
- Agree data owners, stewardship, and responsibilities
- Establish Data and Information governance, principles, policies, processes and controls.
- This will include data ownership and RACI including a data governance board to enable decision making and enforce ownership across key data assets, including quality standards definition.
- Embed data working groups and forums into business as usual to provide rigour and focus across data projects and drive delivery by taking data related decisions.

Tower

Core Policing

Key Assumptions

- This work will dovetail closely with the Data Governance and Insight project being led by Calum Dundas and will utilise many of the approaches approved in that project to drive a coherent Force-wide approach to Data Governance.
- The principles policies, process and controls set during this project will be embedded into business as usual.

Key Risks

- Lack of senior business sponsorship to support and drive activity.
- There must be recognition and support for clear data governance principles and standards, and adherence to them across the Force in the face of other operational considerations.
- Poor coordination across Commercial Service projects (ERP) may compromise data governance and data quality effectiveness.

Dependencies

- Data Maturity Assessment and any strategy refresh work must complete before this project can fully conclude (Data1)
- Should coordinate closely with GDPR Compliance and Remediation (Data2), Data Discovery (Data4), and Data Quality Remediation and Management (Data 5)

Information and Data
Data Discovery

Ref: Data 4

Project Description

Full mapping and documentation of key data items (Master Data Index) across the Police Scotland Estate including format, location, management approaches, and quality status.

Timescale & Resources

Transition State: Transition 1

Duration: 3 years

Resources: 10 FTE in Year 1, 8 FTE in Year 2, and 2 FTE in Year 3 to drive data remediation and management of key risks, issues and stakeholders to support Police Scotland's compliance

Project Activities, Delivery Objectives and Comments

- Define and agree data in scope.
- Agree order and phasing of Data Discovery project and timelines.
- Master Data Index defined and in place, including update process.
- Commence data mapping process, prioritising core operational policing data (e.g. POLE)
- Full mapping and documentation of key data items across the Police Scotland Estate including format, location (systems and regions), management approach and quality status.
- Document findings in a Master Data Index.

Tower

Core Policing

Key Assumptions

- This project can start immediately, and will prioritise mapping in line with broader systems transformation work – i.e. initially POLE data (by region) as a priority to underpin COS implementation (Nominal and Location data considered particularly key).
- Police Scotland resources will be critical to enable timely access to key system/locations and to support mapping exercise

Key Risks

- Complexity of Police Scotland systems landscape may hamper scoping and effort estimation.
- Poor coordination across Commercial Service projects (ERP) may compromise effectiveness of data governance and data quality initiatives.

Dependencies

- Data Maturity Assessment and any strategy refresh work must complete before this project can fully conclude. GDPR Compliance and Remediation (Data2) will also inform Master Data Index (Data1)
- Prioritisation will be dependent on broader transformation programme including target solution architecture (including phasing). DQ Remediation and Management may inform mapping (Data5)

Information and Data
Data Quality Remediation and Management

Ref: Data 5

Project Description

Programmatically cleanse and verify key data items against defined and agreed quality standards, and develop rules that will align data (Master Data Management) to target technology architecture.

Timescale & Resources

Transition State: Transition State 1,2, and 3

Duration: 5 years

Resources: 10 FTE in Year 1, 10 FTE in Year 2, 4 FTE in Year 3 and 1 FTE in Years 4 and 5 to drive data remediation and management of key risks, issues, and stakeholders to support Police Scotland's compliance.

Project Activities, Delivery Objectives and Comments

- Define and agree and data quality, framework, and standards
- Agreed data quality deliverables, priorities, effort and timings and documented project plan
- Define approach to Master Data Management (MDM), including toolsets and processes, and link to Data Governance
- Commence delivery, prioritising core operational policing data (e.g. POLE).

Tower

Core Policing

Key Assumptions

- This project will target a pilot on a specific object to inform process and approach for larger scale remediation
- GDPR-specific remediation is conducted in Data2, but the overall approach to Data2 and this project will be overseen by the Data Governance capability (Data3).
- Business Data Owners will be available to support testing and sign off .

Key Risks

- Data Discovery process has delivery issues which mean quality assessment cannot begin.
- Lack of business stakeholder engagement and ownership will compromise design and quality of data objects, which will delay the overall transformation programme.
- Poor coordination across back office projects (ERP) may compromise effectiveness of data governance and data quality initiatives.

Dependencies

- Data Governance Operating Model (Data3) must be concluded and Data Discovery (Data4) should be well advanced (in key data objects) to enable this project to commence.
- Data Quality tool should be specified and procured (Data7). MDM toolset may also be required subject to objects prioritisation, a clear understanding of how data is created, updated and deleted, and availability of well defined POLE store.

Information and Data
Data Migration

Ref: Data 6

Project Description

Determine data migration strategy and approach. Design, build, and test routines to migrate agreed, quality data into Police Scotland's target applications architecture.

Tower

Core Policing

Timescale & Resources

Transition State: Transition State 1

Duration: 3 years

Resources: 12 FTE in Year 1, 12 FTE in Year 2, and 4 FTE in Year 3 to migrate data into target operational policing architecture.

Key Assumptions

- A Data Quality/Discovery and ETL/Data Migration toolset will be procured as part of the transformation programme (Data7) to minimise the amount of manual data manipulation required within this project.

Project Activities, Delivery Objectives and Comments

- Define and agree and data migration scope and approach including focus on that data required to support operational policing.
- Agree deliverables and timings including milestones for commencing data deletion/archiving.
- Commence data migration development work including technology implementation, functional and technical data migration specifications, and testing regime.

Key Risks

- Delivery issues within Data Discovery (Data4) and Data Quality (Data5) will prevent Data Migration work commencing
- Failure to procure appropriate enabling technologies (Data7) will significantly increase the risk that poor quality data is migrated to the target architecture, and will increase the effort required to execute data migration implementation

Dependencies

- Data Discovery (Data 4) and Data Quality and Remediation (Data5) should be well advanced before Data Migration can commence
- Core Operational Solutions project must have implemented/configured target architecture to enable this project to complete. DQ, ETL and EDW procurement (Data7)

Information and Data
Technology Procurement

Ref: Data 7

Project Description

Requirements analysis, technology selection criteria, and support for the procurement of data warehousing, data migration, data quality, Master Data Management and reporting/analytical/visualisation tools as required to support and enable the transformation programme.

Timescale & Resources

Transition State: Transition One

Duration: 2 years

Resources: 4 FTE in Year 1, 1 FTE in Year 2, to support requirements capture (functional and technical) as well as support to procurement process to enable appropriate supporting data technologies to be

Project Activities, Delivery Objectives and Comments

- Define and agree key functional and technical requirements for enabling data technologies, to inform procurement selection criteria.
- Support procurement process, including toolset evaluation against functional and technical requirements.

Tower

Technology and Infrastructure

Key Assumptions

- MDM toolset will not be required until Year 2 as Core Operational Policing solution will have a well-defined POLE store to support initial data definition, quality, and remediation activity.
- Existing toolsets are either not fit-for-purpose or do not support the overall Police Scotland target technology architecture.

Key Risks

- Procurement process takes longer than expected and delays subsequent migration steps
- Other in-flight projects (e.g. Demand and Performance) result in technologies/capabilities being procured which cut across the enabling technology requirements for broader transformation.

Dependencies

- Data Maturity Assessment and strategy refresh work must complete before this can conclude (Data1).
- Data Governance must be fully in place including a clear and agreed roadmap across all data-enabled projects to ensure clear business case (Data3).
- Other in-flight technology programmes may impact technology selection (see risks).

Information and Data
Data Warehousing and Reporting

Ref: Data 8

Project Description

Definition and implementation of an Enterprise Data Warehouse (EDW) and Reporting capability to enable management, statutory and operational reporting capabilities, in the context of the target operational policing architecture.

Timescale & Resources

Transition State: Transition 1, 2, and 3

Duration: 5 years

Resources: 10 FTE in Years 1 and 2, 4 FTE in Year 3, and 2 FTE in Years 4 and 5 to design and implement Enterprise Data Warehouse.

Project Activities, Delivery Objectives and Comments

- Build on maturity assessment to develop analytical roadmap and focus areas.
- Phase 1 – capability enhanced with current data availability: quick wins identified - such as visualisation or text analytics.
- Phase 2 – More advanced capability targeted and agreed, leveraging newly procured EDW and assets.

Tower

Core Policing

Key Assumptions

- Core Operational Solution will provide transactional reporting.
- EDW will be used for historical management and statutory reporting (including to external stakeholders).

Key Risks

- Procurement process takes longer than expected.
- Data cannot be cleansed/migrated in time to support EDW project.
- In flight projects procuring independently of broader transformation programme may further complicate the architecture and business cases for EDW / Reporting technology, which will delay implementation.

Dependencies

- Data Maturity Assessment and strategy refresh work must complete to enable this project to start. (Data1)
- Procurement of Analytics (Data7) and successful discovery, cleansing and migration (Data4, Data5 and Data6)
- Clear definition of analytics (vs reporting and operational system) requirements including required skills

Information and Data
Analytics

Ref: Data 9

Project Description

Definition and implementation of enhanced analytics - including visualisation, predictive content and contextual capabilities, building on Enterprise Data Warehouse implementation.

Timescale & Resources

Transition State: Transition State 1,2, and 3

Duration: 5 years

Resources: 4 FTE in Year 1, 8 FTE in Year 2, 6 FTE in Years 3 and 4, and 4 FTE in Year 5 to design and implement Analytics capabilities.

Project Activities, Delivery Objectives and Comments

- Build on maturity assessment to develop analytical roadmap and focus areas including subjects, consumers, and delivery mechanisms
- Phase 1 – capability enhanced with current data availability: quick wins identified - such as visualisation or text analytics
- Phase 2 – More advanced capability targeted and agreed, leveraging newly procured EDW and assets

Tower

Strategy and Innovation

Key Assumptions

- Core Operational Solution will provide transactional reporting.
- Analytics will be used for trend analysis, visualisation work etc. Reporting will be managed within the EDW/reporting toolsets

Key Risks

- Procurement process takes longer than expected and delays subsequent migration steps
- In flight projects procuring independently of broader transformation programme may further complicate the architecture and business cases for Analytics technology, which will delay implementation.

Dependencies

- Data Maturity Assessment and strategy refresh work must complete to enable this project to start (Data1)
- Procurement of Analytics (Data7) and successful discovery, cleansing and migration (Data4, Data5 and Data6)
- Clear definition of analytics (vs reporting and operational system) requirements including required skills

Operating Model & Organisation

Operating Model Design and Implementation

Ref: TOM1

Project Description

This programme of work will design and deliver the Operating Model which will support the Digital, Data and ICT strategy. It is anticipated it will be delivered over Transition States 1,2, and 3 and this project will develop the Detailed Design.

Timescale & Resources

Transition State: Transition State 1,2, and 3

Duration: 5 years – with peaks of effort around detailed design and consultation for each of the transition stages

Resources: 5-7 FTE in Year 1, 3-4 FTE in Year 2, 7-10 FTE in Year 3, 1-2 FTE in Year 4, 6-9 FTE in Year 5

Project Activities, Delivery Objectives and Comments

- Initially will deliver the 100 day activity
- Job descriptions and role designs
- High Level Operating Model and Organisation Design (including: Functional Model, Interactions, Role Definition, Governance)
- Organisation Capability Assessment
- Staffing Profile
- Delivery Portfolio
- Project Initiation

Tower

N/A

Key Assumptions

- A consensus will be reached on architectural and TOM design, and alignment with Transforming Corporate Services.
- Alignment of transition states with Transforming Corporate Services.

Key Risks

- There is a risk that future business priorities result in a reprioritisation and redesign of the current strategy and roadmap. The impact of this is that resources are diverted away from working toward TTOM to other tasks which reduces the benefits recognised by Police Scotland.
- There is a risk that the levels of service provided by IT to Police Scotland are reduced during the transition to the new operating model.

Dependencies

- Confirmation of Solution and Infrastructure Architectures;
- Confirmation of Information & Data Architectures and establish the policies, practices and resources to improve and manage the Force's information and data assets;
- Confirmation of the IT Operating Model and Organisation Design;
- Establish a Commercial & Procurement Plan and conduct early Market Engagement; and
- Establish a Business Change Management Strategy, secure a Business Change Network and deliver targeted interventions and communications.

Commercial & Procurement

Commercial and Procurement Management

Ref: Comm1

Project Description

This programme of work will oversee the procurement and commercial management of any Digital, Data and ICT products needed for Police Scotland's transformational programme.

Timescale & Resources

Transition State: Transition State 1

Duration: 6 months

Resources Required: 7 – 10 FTE in Year 1, 7-10 FTE in Year 2

Project Activities, Delivery Objectives and Comments

- Define supply market and evaluate market size
- Evaluate where the market direction
- Understand Police Scotland's value in the market
- Conduct analysis using traditional tools
- Work with the Workstream teams to determine the preferred commercial approach for: Core Operational Systems, Mobile Solutions, Integration, Infrastructure Architecture, Data.
- Engage market and undertake soft market testing (as required)
- Deliver Commercial Case Strategy and Plan

Tower

N/A

Key Assumptions

- Police Scotland team have capacity and are willing to work with the team on delivering a Commercial Case

Key Risks

- There is a risk that potential suppliers would be detracted based on the previous i6 failure
- There is a risk that the requirements of the Scottish Justice System limits the number of suppliers able to deliver on all of Police Scotland's needs, resulting in less competition which drives prices up
- There is a risk that Scotland's geography limits suppliers able to demonstrate capability to meet requirements

Dependencies

- Ensure engagement with responsible Business Unit takes place before Procurement

Commercial & Procurement
Contract Management

Ref: Comm2

Project Description

This project will manage the procurement contracts of current ICT, Data and Digital products.

Timescale & Resources

Transition State: Transition State 2

Duration: 18 months

Resources Required: 2-3 FTE in Year 2, 5-7 FTE in Year 3, 5-8 FTE in Year

Project Activities, Delivery Objectives and Comments

- Maintaining supplier relations and evaluating management information
- Monitoring management information to ensure supplier compliance to key performance indicators, service level agreements, and statutory terms and conditions.
- Ensuring Police Scotland are compliant with any Terms and Conditions agreed with suppliers.

Tower

N/A

Key Assumptions

- The responsible business unit is engaged in key decisions regarding procurement and management of contracts.

Key Risks

- Police Scotland could be exposed to risk of service failure which results in a loss of continuity of service.

Dependencies

- Interest from supplier market to put appropriate contracts in place.

Business Change Management

Business Change Management

Ref: BC1

Project Description

This programme of work will manage business change throughout the duration of Police Scotland's transformation programme

Timescale & Resources

Transition State: Transition States 1, 2, and 3

Duration: 5 years

Resources Required: 2-3 FTE over years 1-5

Project Activities, Delivery Objectives and Comments

- Develop Business Change strategy for Transition 1 projects including: Lessons Learned, Business Readiness Management, Change Impact Analysis, Training & Development, Communications and Engagement, Deployment and Post Go Live Support, and Procedures and Business Continuity.
- Deliver a Business Change Management Strategy and Plan.

Tower

N/A

Key Assumptions

- Strategy for change represents the requirements of the Business
- Required resources will be freed up from their business-as-usual activities

Key Risks

- There is a risk that the introduction of new business processes cause significant operational disruption.
- There is a risk that the current infrastructure plans do not incorporate new requirements.
- There is a risk that a consensus will not be reached on architectural and TOM design, as well as secondary factors.
- There is a risk that if solution recommends a product that has previously failed or is perceived negatively (less functionality) there will be resistance.
- There is a risk that the incremental and independent development of the organisation-wide blueprint creates gaps and misalignments.

Dependencies

- Digital, Data and ICT Strategy.

Business Change Management

Business Change Implementation

Ref: BC2

Project Description

This programme of work will oversee the implementation of business change that the other candidate projects will produce so that all programmes of work are in tandem.

Timescale & Resources

Transition State: Transition State 1,2, and 3

Duration: 5 years

Resources Required: 6-9 FTE in Year 1, 16-24 FTE in Years 2-4, 7-10 FTE in Year 5

Project Activities, Delivery Objectives and Comments

- Identification and analysis of Stakeholders and the subsequent development of a fit-for-purpose Engagement & Communication Plan
- Liaising with COS team to develop change impact assessment and identify preferred implementation approach. Create a change/intervention plan.
- Identify the people, processes, sites and system needed to own and manage Business Change and complete stakeholder analysis
- Develop high level monitoring, tracking, and reporting mechanisms to ensure planned activities are executed to the right quality. Develop a Communications Schedule

Tower

N/A

Key Assumptions

- Strategy for change represents the requirements of the Business

Key Risks

- There is a risk that the business model being developed will create tension with delivery of Transformation. The desire to deliver the business change is not aligned to the transformational change.
- There is a risk that the Digital, Data, and ICT Transformation is seen as an ICT change and the impact of the change across all branches of the Force is not fully recognised/appreciated and consequently the investment required to enable this business change is not available and the business are unable or unwilling to adopt the change.
- There is a risk that Police Scotland deviate from the agreed ICT strategy and roadmap without due consideration for the change impact.
- There is a risk that the Vetting timescales negatively impact delivery timescales.

Dependencies

- Business as usual teams are able to effectively handle daily activities.

Digital Data & ICT Strategy Review

Capability Assessment

March 2018 – Draft for Discussion

Context/Background – IT-CMF Analysis

The Capability Maturity Framework (IT-CMF) was developed through a collaboration between a number of leading public and private organisations. It provides a scalable method framework to determine an organisation's maturity in delivering ICT services and through consideration of a gap assessment between current maturity and required maturity (based upon business need).

A small survey of approx. 20 staff across ICT, Data, Project Delivery and Operations was undertaken to provide a perspective using the IT Capability Maturity Framework.

Current Maturity

Highest performing capabilities
- Information Security Management,
- Risk Management &
- Service Provisioning

Lowest performing capabilities
- Innovation Management,
- Enterprise Architecture Management

Target Maturity – areas where there is the greatest aspiration
- Enterprise Information Management (Gap 3),
- Funding & Finance (Gap 2.7),
- People Asset Management (Gap 2.9)

The most important capability is Portfolio Management, however the gap between current and target maturity is quite high (2.2).

On average, there is a current maturity score of **2**, and a target maturity score of **4.53**, with a gap of **2.53**.

Figure 1 – IT-CMF Capabilities ranked by Current and Target Maturity

Contributing Factors – Aligning IT-CMF Key Findings

- The findings from discussions with stakeholders is echoed in the results of the survey and the key investment priorities
  - Governance
  - Enterprise Architecture
  - Portfolio planning and prioritisation

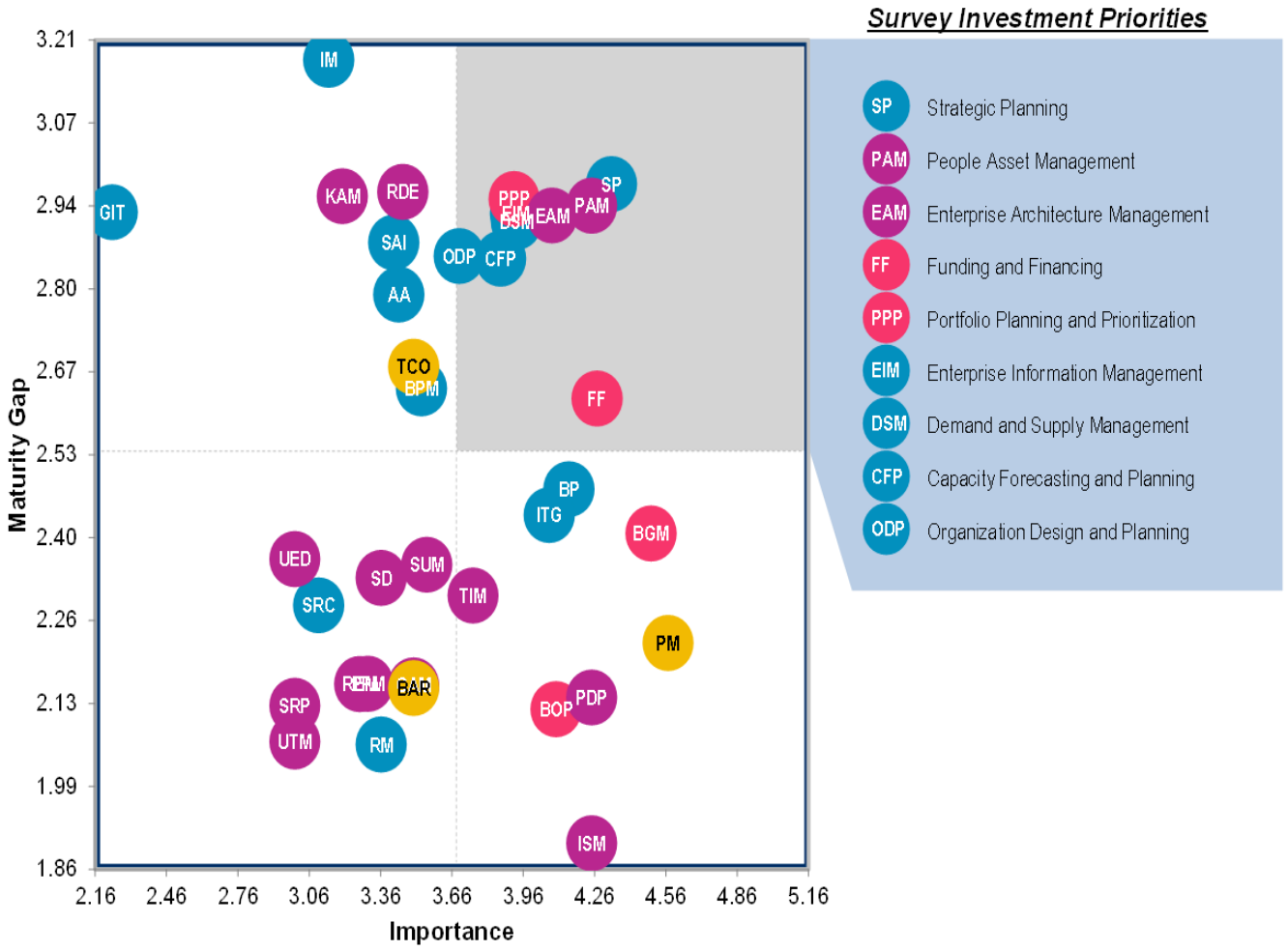


Figure 2 – IT-CMF Capabilities mapped by Importance and largest Maturity Gap

IT-CMF – Critical Capability Importance Breakdown

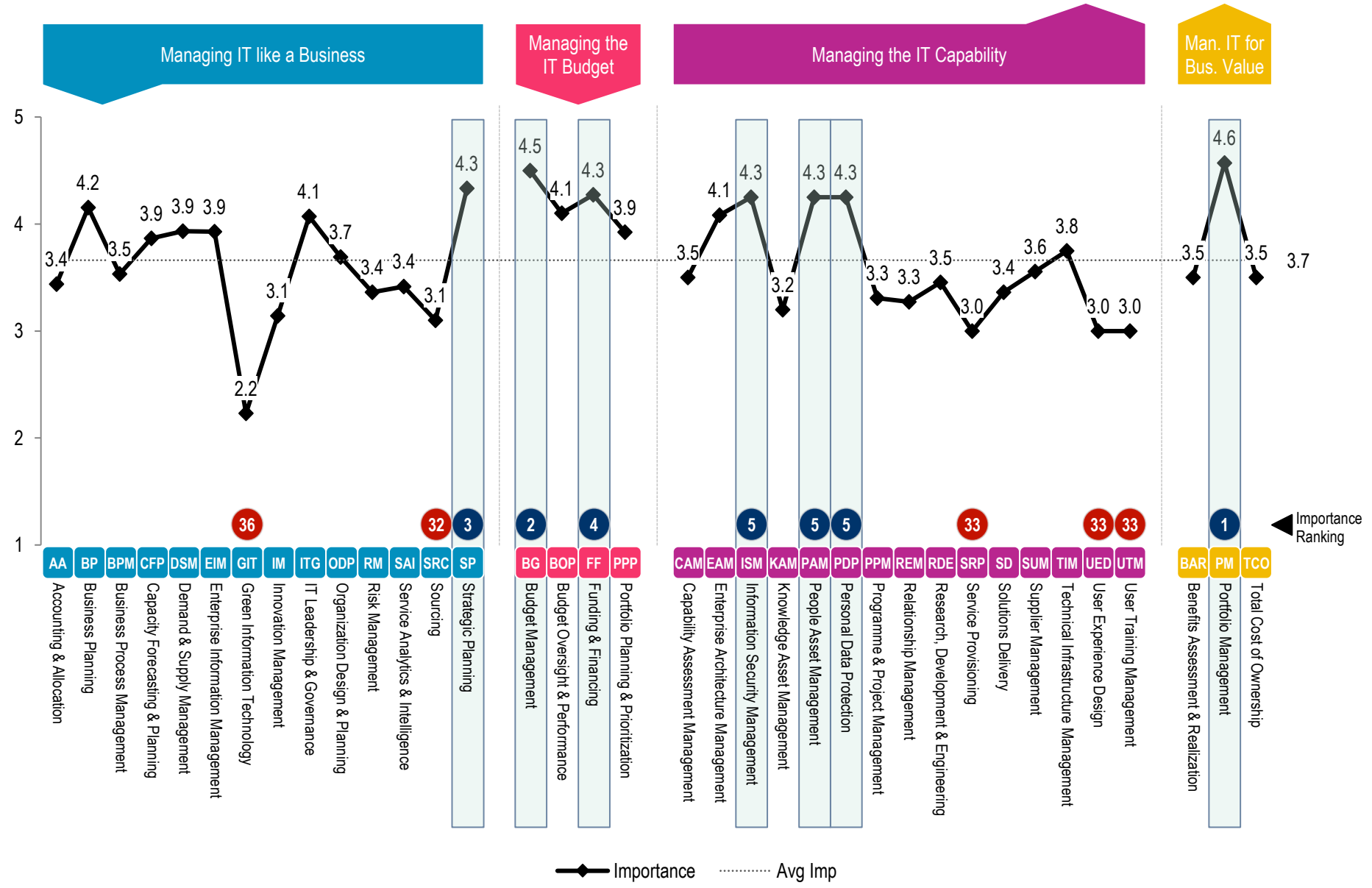


Figure 3 – IT-CMF Capabilities ranked by Importance

IT-CMF – Assessment Headline Data

Macro	CC	Critical Capability Name	Importance	Current Maturity	Target Maturity	Maturity Gap
Business	AA	Accounting & Allocation	3.44	1.81	4.60	2.79
	BP	Business Planning	4.15	2.09	4.57	2.48
	BPM	Business Process Management	3.53	1.76	4.41	2.64
	CFP	Capacity Forecasting & Planning	3.87	1.50	4.35	2.85
	DSM	Demand & Supply Management	3.93	1.69	4.60	2.91
	EIM	Enterprise Information Management	3.93	1.82	4.75	2.93
	GIT	Green Information Technology	2.23	1.54	4.46	2.93
	IM	Innovation Management	3.14	1.41	4.59	3.18
	ITG	IT Leadership & Governance	4.07	2.03	4.47	2.44
	ODP	Organization Design & Planning	3.69	1.68	4.54	2.86
	RM	Risk Management	3.36	2.57	4.63	2.06
	SAI	Service Analytics & Intelligence	3.42	1.69	4.57	2.88
	SRC	Sourcing	3.10	2.25	4.54	2.29
	SP	Strategic Planning	4.33	1.69	4.67	2.97
Budget	BGM	Budget Management	4.50	2.23	4.64	2.41
	BOP	Budget Oversight & Performance Analysis	4.10	2.06	4.18	2.12
	FF	Funding & Financing	4.27	2.04	4.67	2.63
	PPP	Portfolio Planning & Prioritization	3.92	1.55	4.50	2.95
IT	CAM	Capability Assessment Management	3.50	2.05	4.21	2.16
	EAM	Enterprise Architecture Management	4.08	1.50	4.42	2.92
	ISM	Information Security Management	4.25	2.71	4.62	1.90
	KAM	Knowledge Asset Management	3.20	1.55	4.50	2.95
	PAM	People Asset Management	4.25	1.79	4.73	2.94
	PDP	Personal Data Protection	4.25	2.40	4.54	2.14
	PPM	Programme & Project Management	3.31	2.45	4.62	2.16
	REM	Relationship Management	3.27	2.42	4.58	2.16
	RDE	Research, Development & Engineering	3.45	1.54	4.50	2.96
	SRP	Service Provisioning	3.00	2.58	4.71	2.13
	SD	Solutions Delivery	3.36	2.29	4.63	2.33
	SUM	Supplier Management	3.56	2.10	4.45	2.35
	TIM	Technical Infrastructure Management	3.75	2.15	4.45	2.30
	UED	User Experience Design	3.00	2.18	4.55	2.36
	UTM	User Training Management	3.00	2.35	4.42	2.07
Value	BAR	Benefits Assessment & Realization	3.50	2.35	4.50	2.15
	PM	Portfolio Management	4.57	2.27	4.50	2.23
	TCO	Total Cost of Ownership	3.50	1.78	4.45	2.68
		Averages	**3.66**	**2.00**	**4.53**	**2.53**

Police Scotland Digital Data & ICT Strategy Review

Conceptual Mode of Operations

Version and Change History

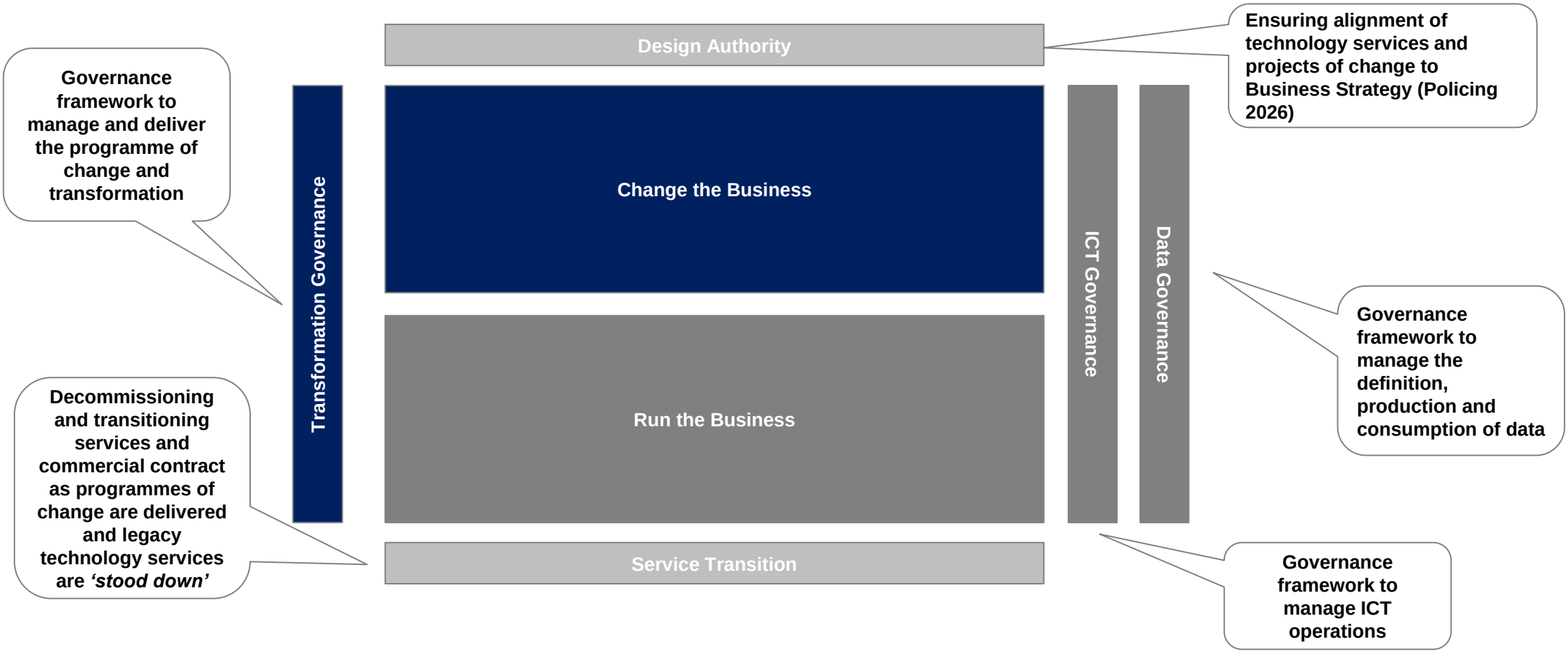
Version	Date	Comments
1.01	2 March 2018	Initial draft for discussion at Steering Group
1.02	20th March 2018	Second draft for discussion with ICT to discuss transition states
1.03	22nd March 2018	Third draft for Steering Group review
2 00	23rd March 2018	Issue to Steering Group

Target Technology Mode of Operation

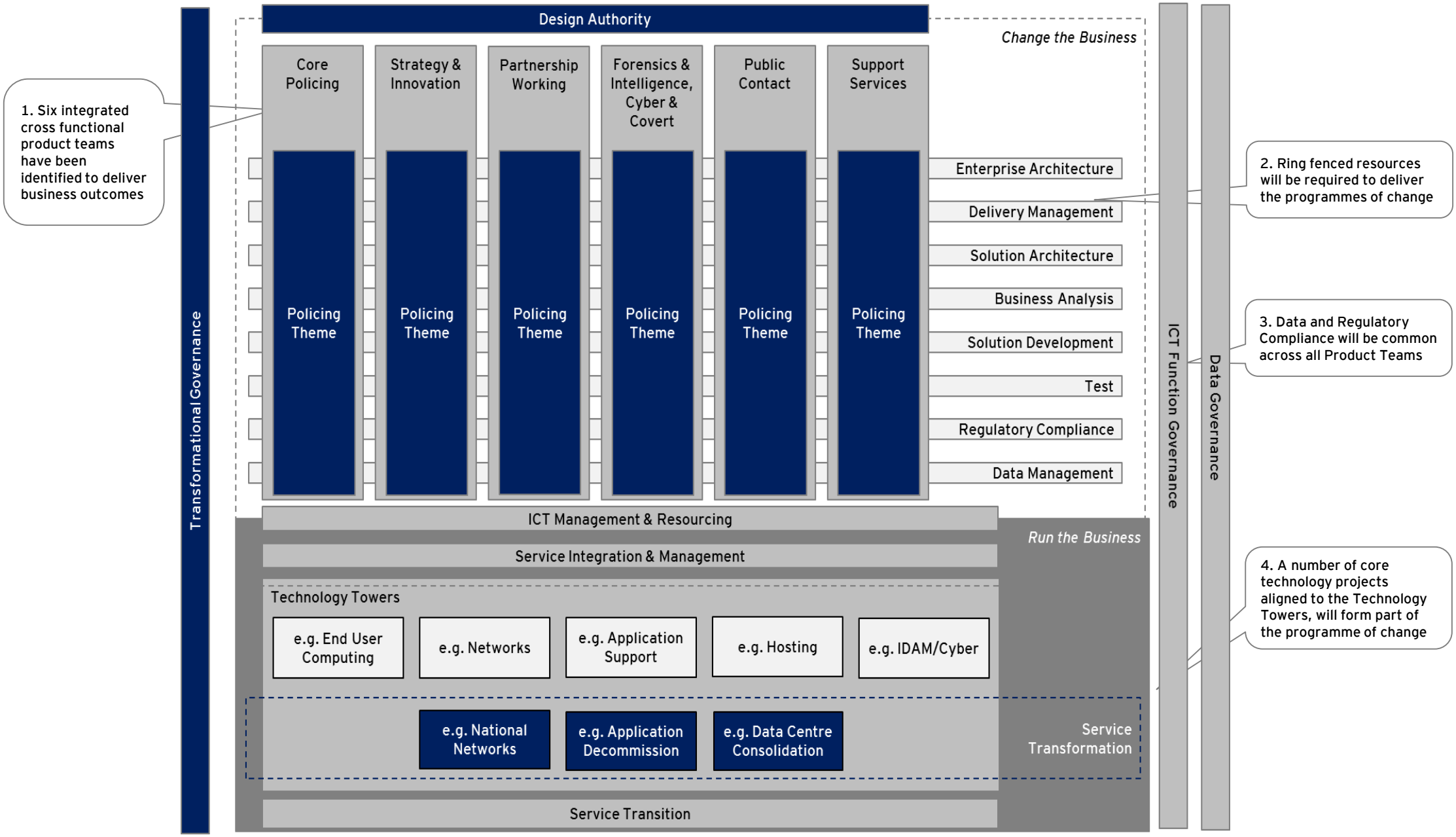
The purpose of this document is to illustrate the principal conceptual features of the proposed Technology Target Operating Model. The model builds on the core elements of the model which has been developed by the TCS programme. The model is based on the central tenet of having two distinct capabilities of

- ***Run the Business*** – the provision of technology services and projects to support the effective delivery of business operations
- ***Change the Business*** – the provision of technology services and projects to support the business transform and deliver change.

The key concepts are illustrated in the diagram below, which are then developed in more detail overleaf.



Target Technology Mode of Operations – Conceptual Overview



Target Technology Mode of Operations – Key Features

A number of the key features of the TToM are listed below

1. **Cross Functional Product Teams**. The proposed 6 product teams to deliver the Policing 2026 outcomes are
    1. Core Policing
    2. Strategy & Innovation
    3. Partnership Working
    4. Forensics & Intelligence, Cyber and Covert
    5. Public Contact
    6. Support Services

2. Ring Fenced Resources. The proposed model contains Ring Fenced resources that are aligned to 'Change the Business'. Our view is that this is required as a programme of this nature is unprecedented in terms of size, complexity, capacity, timescales and burden on existing business as usual.

3. **Data & Regulatory Compliance**. A common and consistent approach to data & regulatory compliance will ne embedded in each of the product teams

4. **Run the Business**. A series of change projects will be delivered within the core Technology Towers, for example data centre consolidation. These core infrastructure projects will significantly impact how aspects of service delivery will be provided and are a key enabler for wider technology related changes

5. **Service Transition.** The volume of the proposed change is significant. As new services and technologies are delivered, ICT will be required to manage the transition from the current model of support the new. This will involve management and transitioning of contracts, the decommissioning of applications and data and integration into service.

Outline of Transition States

		TToM Transition Stage 1	TToM Transition Stage 2	TToM Transition 3
		"Enabling change"	"2026 alignment"	"Future delivery"
	Key Features of Transition State	• Establishment of TToM Governance required to support the delivery of Transition Stage 1 • Establishment of Enterprise Architecture and Design Authority • "Ring Fenced" resources to create Change function • Establishment in principle of the Product teams to deliver Transition 1 projects	• Establishment of the revised TToM operating model • Alignment to wider Corporate Services operating model design • Delivery of capability	• Refinement of TToM to rebalance delivery profile between 'Run the Business' and 'Change the Business'
	Change the Business	• Delivery of Transition 1 projects	• Continued delivery of Transition Stage 1 projects • Design and development of Transition Stage 2 projects	• Delivery of the remaining technology programmes
	Run the Business	• Continued focus on delivering core ICT support to current estate • Continued consolidation of processes and practices	• Adoption of Service Integration and Management (SIAM) • Adoption of 'Technology Towers' • Acceptance in to Service for Transition 1 projects	• Full adoption of SIAM and Technology Towers • Consideration of sourcing options
Impact on	Organisation	• Establishment of capabilities aligned within existing organisation model	• Creation of Service Transition Function • Redesign of the organisational structures	• Continual refinement/adoption of product teams in line with business requirements
	Governance	• Establishment of revised governance model, enterprise architecture and portfolios to support Transition 1 • Alignment/integration with Transformational Governance	• Adoption of revised TToM governance	
	Roles & Capabilities	• Increased requirement for 'change resource'	• Delivery of capability improvement initiatives and training to support revised TToM	

Scenarios

Scenario	Key Changes	Considerations for Detailed Design
Setting strategy	**ICT Management** will own the strategy, technology blueprint and architecture. The strategy will reflect Police Scotland's business objectives	• Establishment of clear responsibilities and accountabilities for Transformation & ICT Governance
Managing demand	**Design Authority and Transformation Governance**. The Design Authority will act as the 'gatekeeper' to validate that any proposed changes are designed and delivered in accordance with the agreed strategy and blueprint. The Transformation Governance own the portfolio of change initiatives and will be the governance forum for commissioning any new projects	• Portfolio Management • Enterprise Architecture
Managing delivery	**Product Teams**. The establishment of the product teams aligned to business outcomes will significantly change the current model of delivery. The teams will consist of multi-skilled resources delivering projects or packages of work for the business outcomes	• Common Methodology Set (Agile / Waterfall) • Location of Teams / Ways of Working
Managing service	**Service Integration** – the adoption of Service Integration and Management approach, opening up the potential for alternative service models (e.g. cloud).	• Future skills and capabilities • Introduction of SIAM • Dependencies on solution delivery
Managing governance risk	**Transformation, ICT Functional & Data Governance –** Transformation governance will set the programme of change, ICT functional governance will deliver and accept change products into business as usual and data governance will span across all areas of the business.	• Alignment with current governance arrangements
Managing resources and supply	**ICT Management & Resourcing and Product Teams**. A revised resourcing model will be required to coordinate the delivery of 'run' and 'change' activities.	• Vendor and 3rd party management • Resourcing Tools