‘Shaping the Future’
A Supporting Digital & eHealth Strategy
2018-2022
Huge advances in technology over the past five years have brought about significant changes in the way we treat and care for our patients. Thanks to progress in clinical imaging we can now view X-rays anywhere. Electronic patient records have replaced thousands of paper records in our outpatient departments. There has also been a focus on embracing mobile technology, from supporting GP practices to access key clinical systems to the use of WiFi across our wards and departments. The introduction of a new electronic prescribing system, known as HEPMA, was also a significant milestone following a detailed implementation plan which saw it being rolled out to clinical areas in record time.

The next steps will concentrate on moving the agenda further into the digital setting, making sure that our clinical systems are safe and secure and that our infrastructure is resilient, particularly in relation to potential cyber attacks.

We are set to deliver a new acute patient management system (TrakCare) which is already being successfully used in many other parts of Scotland. It stores a full record for patients attending hospital from referral or unscheduled admission through inpatient and outpatient care and eventual discharge. It also allows information to be shared securely amongst all staff providing care, including GPs, which will help improve communication between healthcare professionals.

We will be refreshing GP and community electronic systems and working on regional and national developments in support of a patient-facing portal which will help people discuss with healthcare staff how they would like to be treated and cared for. Health and social care integration has also focused minds on information sharing and we will be working to improve the flow of information between GPs, acute services, community teams and social care.

Our Digital and eHealth Strategy has been modelled on the strands identified in NHS Forth Valley’s current “Shaping the Future” Healthcare Strategy, which charts our core aims for healthcare over the next five years. It supports the key service priorities which have been identified and, importantly, forges closer links between patients and healthcare staff through the use of technology. This sea change in information sharing will be at the heart of our future success.

Cathie Cowan
Chief Executive

Jonathan Procter
Director of Facilities & Infrastructure
The vision for Digital Health and Care in NHS Forth Valley is:

To be leading eHealth and Digital technologies within NHS Forth Valley in collaboration with our health and care partners.

To be recognised nationally for our culture of continuous improvement and technical support providing excellence in practice and at the forefront of innovation, education and professionalism.

To be part of the NHS Forth Valley and wider integrated health and social care system delivering our “Shaping the Future” Healthcare Strategy, achieving the 2020 vision and delivering the best person centred healthcare.

This new strategy builds on the successful delivery of our eHealth Strategy 2012-2017.

We know that high quality and reliable Information and Communications Technologies (ICT) help our staff deliver the best person centred healthcare.

We have endeavoured to achieve this by focusing on delivering our improvement projects such as Electronic Patient Records (EPR) while sustaining high quality continuous service delivery.

There have been many achievements to celebrate during the past 5 years:

- Delivering the various components of the EPR enabling paper-light working, eg electronic laboratory requests and results
- Revitalising our technical ICT and business continuity infrastructure with a robust focus on cyber resilience
- Refreshing and modernising our Information products and services
- Revolutionising delivery of hospital electronic prescribing and medicines administration (HEPMA)
- A planned move to the national patient management system Trakcare.
- Significant improvements in cyber security

We now need to recognise the many and varied new drivers for change in the digital landscape both nationally and in Forth Valley. This new strategy sets out the priority areas and actions. It will be backed up by annual delivery plans giving more detail on specific projects and programmes of work.
Developing the Strategy

This strategy has been developed by engaging with and listening to partners across NHS Forth Valley during 2017. This has involved consultations with General Managers and Directorate senior teams; stakeholder workshops with over 100 staff each bringing fresh ideas and confirming national and local priorities.

These workshops included NHS, partnership and local authority colleagues.

The Strategy follows closely the published NHS Forth Valley healthcare strategy ‘Shaping the Future’, and incorporates priority actions from a range of other local and national strategies.

Finally, following publication of the “Scotland’s Digital Health and Care Strategy” in April 2018 our local strategy links in with the published national strategy at relevant local delivery points.

The request from stakeholders was to have a user friendly, concise document that each and every staff member can reference and visualise their own contribution to the elements within the delivery plan of this new strategy.

A summary of the major infrastructure, applications and information developments is given at the end of the document (Appx 1) and an overview timeline of when these are likely to occur in the next five years (Appx 2).

Delivering our Supporting Digital and eHealth Strategy

An annual delivery plan will form the detail of how specific elements will be progressed through individual project plans, governed through the eHealth programme board, and Senior Leadership Team.

The wide-ranging eHealth programmes are managed by the eHealth programme board which reports up to the NHS Forth Valley Board via a series of governance groups. The governance structure is in Appx 3.

A draft timeline showing approximate five year timetable for delivering elements of the strategy is in Appx 2.

A separate financial strategy statement is included before the concluding summary. Some of the major programmes are already underway. Trakcare Patient Management System and Stirling Care Village infrastructure are significant examples.

Finally, following publication of ‘Scotland’s Digital Health and Care Strategy’ we will incorporate relevant elements of the national delivery plan within our annual plans when those national plans are published.
In this page we illustrate some of the major successes and benefits from the previous eHealth strategy.

- Over 68,000 prescriptions are raised each month and administered electronically via Hospital Electronic Prescribing and Medicines Administration (HEPMA) reducing errors and costs.

- Over 100,000 patient records are accessed electronically per month via Clinical portal improving direct patient care.

- Over 28,000 electronic letters are sent to GP practices per month speeding up information sharing.

- Over 100,000 laboratory requests per month are now sent and results received electronically via the Order-Comms system reducing errors and costs.


- Over 2000 electronic eForms are produced each month in more than 14 paper-light outpatient department specialties which are increasing each month.

- An electronic patient record system for community nurses and AHPs is now used by over 1600 staff and contains over 150,000 patient records. This improves information sharing, reduces errors and improves patient care.

- New Business Intelligence dashboards enable monitoring quality of care as well as performance evaluation. For example the Nursing dashboard monitors Excellence in Care across all wards and nursing groups.

- Emis Web is used in all GP Practices and provides Health Board level information for Enhanced Services and other primary care information.
Local Drivers

NHS Forth Valley and local partners have published a number of new strategy documents which will influence and shape our own local five year plan. Responding to these new drivers has been at the forefront of our thinking in developing this new strategy. Foremost among these is “Shaping the Future” which helped shape the structure of the following sections in this document. Examples of new local drivers are listed below:

- NHS FV and Health & Social Care Partnerships Local Strategic and Delivery Plans
- Quality Improvement Strategy – “Better every day”
- Person Centred Strategy – “What matters to you, matters to us”
- Nursing and Midwifery Strategy – “We Care”
- Reducing harmful variation – benchmarking services

National Drivers

In recent times Scottish Government and NHS Scotland have released a number of new initiatives, strategy documents and programmes of work which will influence our own local strategy. Foremost among these is “Scotland’s Digital Health and Care Strategy”. Examples of new national drivers are listed below:

- Scotland’s Digital Health and Care Strategy 2018
- A National Clinical Strategy for Scotland 2016
- Excellence in Care 2015
- Health and Social Care Delivery Plan 2016
- Modernising Outpatients
- Primary care transformation programme
- Mental Health Strategy 2017-2027
“Shaping the Future” and “Scotland’s Health and Social Care 2020 Vision” set out the need for transformational change to services that will need to rise to the challenges that an integrated Health and Social Care system faces. There is a particular focus on prevention, anticipatory care, self management and working in partnership to deliver care and services in a radically different way. ‘Shaping the Future’ sets out ten priority areas and this strategy focuses on those areas indicating actions we can take to help support our local healthcare strategy.

These priorities from ‘Shaping the Future’ form the content of the following sections in this document and are:

- **Prevention and Person centred**
  - Assisting people and their carers to look after themselves and stay well at home

- **Health inequalities and Personal responsibilities**
  - Ensure vulnerable and high risk of unscheduled care people have services such as Technology Enabled Care (TEC) to help them stay well at home

- **Closer to home**
  - Provide services for unwell elderly people at or close to their home and help keep them out of hospital

- **Working in partnership**
  - Improve working with local authority and voluntary sector partners

- **Planning ahead**
  - Develop better communications between partners, people and carers. Improve planning for care and discharge. Improve flow of information between different stages of care.

- **Minimising delays**
  - Work towards modernising outpatient attendances, improving patient flow in hospital, reducing waiting lists and times.

- **Reducing variation**
  - Provide more standardised care pathways, improve training and guidance for staff and minimise avoidable variation in care

- **Workforce Knowledge and Skills**
  - Support continued development of knowledge and digital skills of workforce and patients/clients and their carers.

In addition to the previous itemised sections linking to ‘Shaping the Future’ we have included the following sections relevant to our local imperatives:

New innovative technologies (eg TEC) are required to help services deliver these changes. A separate section on ‘Digital Service Transformation Initiatives’ is given. One thing does, however, remain a present and future imperative: that is the need to focus on delivering priority technologies with proven business cases within a limited financial envelope. A separate financial strategy statement is given.
A second imperative is to continually update our existing technologies to best of breed adequately supported systems. This latter imperative means that during the lifetime of this strategy some major ICT systems will be replaced, leading to service improvements, standardisation and other benefits alongside supporting the new priorities. A separate section is given at the end on ‘keeping the lights on’.

A third imperative is the trend towards regional working. Whether it is shared services, collaborative procurements, inter-agency and NHS Board data sharing; all such developments will influence the path we take and the options available for provision of Digital services.

In addition to these priorities we are working in collaboration with the West of Scotland partnerships on a variety of regional plans for reconfiguration and collaborative service delivery. Elements of those regional plans relevant to digital health and social care, linked to the national delivery plan must be considered within this strategy.

‘Scotland’s Digital Health and Care Strategy’ (DH&C) has six domains of focus, all of which will feature to some extent in this Forth Valley strategy and relevant links are given. These domains are:

- Domain A - National Direction
- Domain B - Information Governance, Assurance and Cyber Security
- Domain C - Service Transformation
- Domain D - Workforce Capability
- Domain E - National Digital Platform
- Domain F - Transition Process

A mapping of all our priority actions to these six domains is given in Appx 4.

Finally all the above must be balanced with ensuring robust vigilance on cyber security is maintained, this is Domain B in the national strategy, and so a separate section on cyber resilience is included near the end.

The next sections take the ten priorities and set out what we aim to achieve, the benefits we hope to support, and the actions we aim to take during the lifetime of this strategy.
Prevention and Person-Centred

“We as our population ages, it is vital that we do all we can to try and keep people well. A significant number of diseases including long term conditions such as obesity and diabetes are largely preventable, or can be improved, with appropriate lifestyle choices. It is essential that people are encouraged and supported to take responsibility for their own health and health outcomes. Early detection and prevention can reduce the severity and impact of ill health.” –Shaping the Future

We aim to provide the following:

An uptake of self-testing and self-monitoring by patients at home (Domain C in DH&C).

Assist the closer to home programme sharing of Single Shared Assessments with partners.

Anticipatory care planning and the sharing and utilisation of plans for preventing unnecessary emergencies.

Flexible and person-centred appointment booking

Provision of treatment summaries for people with long term conditions.

Improvements of equality and diversity monitoring

Benefits of supporting these priorities include:

Reducing emergency attendances and hospital admissions

Reducing delayed discharges and supporting Carers

Improving care in the community and data sharing with partners

Improved self-care and person-centred services

Improved equality and diversity monitoring

To achieve this we will...

- Implement a community ICT system replacement which will incorporate Single Shared Assessments, Anticipatory Care Plans and Carers Assessments.[3]
- Provide enablers for data sharing between NHS and local partners including the voluntary sector where appropriate.[7]
- Roll-out the national Patient Portal in collaboration with the national programme.[9]
- Implement online appointment booking from home in collaboration with relevant national programmes.[9]
- Work with the national CHI and Child health information redesign programmes as an enabler to link with Government’s “Citizens Account” allowing patients to utilise the national Patient Portal.[5]
- Provide services with tools for developing and recording treatment summaries.[1]
- Provide person-held maternity records on smart phones and tablets via harnessing the new Badgernet maternity system app for mobile devices [12]
- Roll-out self-testing and home monitoring for patients in collaboration with partner organisations.[11]

[Numbers in red brackets map to list of actions in Appx 1]
Health inequalities and personal responsibilities

“In Forth Valley there is a clear message that we all need to start taking more personal responsibility for our own health. Healthcare services and strategic partners should support and develop the personal resilience of patients and unpaid carers and family members...”

– Shaping the Future

We shall help patients stay well at home and out of hospital by identifying vulnerable individuals and those with “High Health Gain” for enhanced support.

We shall enable services to monitor diversity and equality variation among their patients/clients and will provide management information to help ensure inequalities in service outcomes are minimised.

We shall help rollout of appropriate digital technology in the home to support independent living and managing long term conditions at or closer to home.

We shall work towards the ‘digital participation charter’ as required in the national strategy Domain C.

To achieve this we will...

- Provide reports to services of individuals at high risk of unplanned admission and vulnerable people at risk in cases of civil emergencies and major incidents.[21]
- Provide relevant and validated diversity monitoring systems as part of the CHI refresh and new acute and community patient management systems (PMS) migration programmes.[1],[22]
- Provide mechanisms, such as e-forms, for staff, patients and parents/guardians to comply with the new General Data Protection Regulation and where necessary record their consent to share digital information with our local authority and other partners.[23]
- Implement a patient portal in collaboration with a national programme allowing patients a range of online services from their home or community setting.[9]
- Work with the national CHI programme allowing better recording of diversity and other personal factors along with a modern sustainable national CHI system.[5]
- Implement proven technology enabled care (TEC) devices in collaboration with national providers, such as simple home and mobile health monitoring (eg “Florence”).[11]

[Numbers in red brackets map to list of actions in Appx 1]
We aim to provide the following:

The technology necessary for a single point of urgent care access for community professionals

Improvements in care-coordination for people with complex needs with local authority and voluntary sector partners

Digital services for new specialist community roles eg GP fellows and Enhanced Community Team.

The use of telehealth, mobile and remote access for community based staff

Enabling of virtual clinics and outpatient appointments at home or in the community

All these link to Domain C in DH&C.

The benefits of supporting the range of services within our ‘Closer to Home’ programme include:

Keeping patients out of hospital

Enabling clinician led unscheduled care via remote consultation without attending ED by for example phone, video eg ‘Attend Anywhere’

Improving the care of people with complex needs enabling them to live longer at home or in a community setting

More communication options for outpatient appointments

To achieve this we will ...

- Provide digital systems for recording and sharing patient data within the ‘Closer to home’ services.[3]
- Improve recording and sharing of community information. Firstly by development of a Single Shared Assessment in the community system and enabling the sharing of that within our Health & Social Care Partnerships. Secondly migration to a new community system in collaboration with other health boards.[3]
- Work with others in the evaluation of “Closer to Home” and “GP Fellows” services to evaluate the benefits of investment in these services.[24]
- Enable use of telehealth and ‘TEC’ services (eg home monitoring) in collaboration with NHS24 and local authority partners.[11]
- Enable services to provide virtual consultations, reducing patient travel and increasing efficiency by use of for example ‘Attend Anywhere’.[17]
- Roll-out a refreshed GP IT system to support community hub and ‘GP cluster’ working.[2]
- Provide mobile devices and applications where relevant, possible and cost effective. [18]
- Enhance provision of WiFi network services to better enable mobile working. [14]
- Improve maternity care by implementing the new Badgernet maternity system enabling remote, mobile and patients direct access to their own maternity records. [12]

[Numbers in red brackets map to list of actions in Appx 1]
We aim to provide the following:

- Improvements in collaboration with local authority and other partners including data sharing
- Secure remote access to voluntary sector partners to assist data sharing within approved networks using national standards (Domain E in DH&C)
- Improvements in delayed discharge processes, enhancing community transfers and hospital patient flow
- New ICT for development of community hubs and GP Clusters
- Mental health improvement initiatives arising out of the ten year national strategy

To achieve this we will ...

- Enable data sharing between partners by supporting the Forth Valley Data Sharing Partnership and developments arising from the Health and Social Care Partnerships. [15]
- Implement a partnership wide data sharing portal in collaboration with local authority partners (subject to approved business case). [7]
- Provide secure remote access to relevant systems as justified for those with complex care needs.[19]
- Roll out a new improved delayed discharge information system to replace the ‘EDISON’ system which is being phased out. [8]
- Enable community nursing and other partners sharing information via development of an electronic Single Shared Assessment and associated governance.[3]
- Improve support for carers assessments and share these with relevant partners. [25]
- Implement a refreshed GP IT system in collaboration with national programmes and supporting our GP clusters.[2]
- Work with our partners in local authorities and elsewhere to improve network and WiFi infrastructure, to enable NHS and partnership staff to access relevant systems wherever and whenever they require such access whether in NHS or local authority buildings.[15]
- Develop recording mechanisms for relevant mental health performance indicators for services management and national reporting purposes in partnership with national programmes.[26]
- Implement necessary improvements in robust information governance, and the implementation of the General Data Protection Regulation. [23]
- Upgrade our Office applications and use the document sharing capabilities to improve collaboration.[4]
Planning ahead

“Effective care planning, by health and social care professionals in partnership with patients and carers, will help to reduce the need for unplanned emergency admissions and A&E attendances.” – Shaping the Future

We aim to provide the following:

- Improved multidisciplinary support for case management of patients with complex needs
- Improvements in information for emergency and unscheduled care service redesign work
- Improvements in communications between health and care teams and practitioners and their patients using national standards (Domain E in DH&C)
- Better advanced planning for discharge to avoid delays
- Improved sharing of widely used office applications via ‘Cloud’ technologies

To achieve this we will ...

- Ensure case management is built into the new community information system in collaboration with the national programme. [3]
- Implement a new Emergency Care system as part of the Trakcare implementation programme. [1]
- Improve the provision of relevant management information at locality, partnership and GP cluster level. [27]
- Provide secure remote access to relevant systems as justified and required for those with complex care needs. [19]
- Implement and roll-out the national patient portal and support services to communicate with patients in collaboration with the national programme. [9]
- Upgrade our Office applications and use the document sharing capabilities to improve collaboration. [4]
- Implement national interoperability standards in line with ‘Scotland’s Digital Health and Care Strategy’ Domain E on the national digital platform.

[Numbers in red brackets map to list of actions in Appx 1]
Minimising Delays

“Delays in treatment and care can mean that people stay longer than necessary in an inappropriate care setting or may find that their condition is exacerbated whilst they are awaiting access to care.” – Shaping the Future

We aim to do the following:

- Implement new technologies to support 'Modernising Outpatients Programme' initiatives aimed at reducing waiting times
- Enhance hospital patient flow coordination and reduce delays in discharges
- Enable electronic direct booking of appointments across various services
- Ensure ambulatory one-stop clinics and emergency care services are included in new information systems
- Provide wider access to diagnostic test requests and bookings
- Work with colleagues on developing the national radiology shared service
- Improve collaboration between acute, community and primary care following Domain E in DH&C

To achieve this we will ...

- Implement improved, standardised outpatient services and appointment booking as part of the Trakcare PMS implementation programme. [1]
- Enable the direct booking of appointments from home in line with the national patient portal programme. [9]
- Recognise the information requirements for ambulatory one-stop clinics and ensure these are addressed in the Trakcare migration programme. [1]
- Roll out a new improved delayed discharge information system to replace the ‘EDISON’ system which is being phased out and will support reducing discharge delays. [8]
- Provide a new theatres information system migrating to the national system, subject to a robust business case.[10]
- Implement radiology service redesign as a national shared service in collaboration with the national programme (this may include the procurement of a national radiology information system). [10] [20]

[Numbers in red brackets map to list of actions in Appx 1]
Reducing Variation

“There are recognised ways of minimising variation. These include greater use of information technology to present, share and analyse information, including benchmarking, establishing standardised care pathways, ensuring that clinical guidelines are complied with and using audit to measure compliance.” - Shaping the Future

We aim to achieve the following:

Reduce clinically unnecessary occupied beds by reducing patients delayed in their discharge

Develop standardised outpatient and inpatient care pathways

Improve Allied Health Professional (AHP) and nursing information and national benchmarking

Improve training of staff in digital systems helping staff to be confident users (Domain D in DH&C)

Work with our partners in the implementation of this strategy

To achieve this we will...

- Ensure care pathways are built into the new community information system in collaboration with the national programme. [3]
- Develop standardised care pathways as part of the PMS implementation programmes. [1]
- Enable AHP and nursing information sharing with a new community information system replacement programme, and online dashboards for management information and benchmarking in collaboration with national programmes – Excellence in Care and AHP Indicators. [3]
- Roll-out the national patient portal and support services in Forth Valley to communicate with patients via that service for e.g. online appointment booking. [9]
- Enabling staff training and information provision seven days a week by the automation and online provision of e-learning packages and information required for direct patient care. [See next section]

[Numbers in red brackets map to list of actions in Appx 1]
Workforce: Knowledge and Digital Skills

“As we deliver the transformational change set out in this strategy, we also need to ensure that our staff are supported to take on new roles and develop new skills.” - Shaping the Future

To support the continued development of Knowledge and Digital Skills, an innovative approach is required to provide appropriate and flexible high quality eHealth learning programmes which are available when needed and delivered in ways to suit all clinicians and staff.

Two key aims are to make better use of existing training and education resources, and to work within the national strategy Domain D on workforce capability in digital skills and work towards the ‘digital participation charter’ as required in the national strategy.

We will do this through increased efficiency and effectiveness of delivery and content, as well as improved participation by learners. For example by developing a blended learning approach incorporating e-Learning and e-Information solutions, as well as ensuring education and training are more interactive.

To achieve this we will ...

- Develop learning solutions which can provide knowledge and skills at a time, pace and place that suits the learner, through enhanced use of e-Learning and e-Information solutions.

- Develop live remote learning sessions through the use of conferencing technologies to deliver training to multiple locations simultaneously.

- Further enhance classroom based courses to offer modular, role-based training sessions.

- Enhance on-line self-help guides and the use of training videos for refresher training.

- Evaluate the benefits of providing eHealth skills coaching and on-the-job learning where appropriate.

- Implement TURAS to enhance personal development planning for all staff.

- Work with the national programme on workforce capability (Domain D).
Digital Service Transformation initiatives

“Simply ‘overlaying’ technology on existing services, whilst useful and sometimes essential, misses an opportunity: the real potential is to understand and realise a comprehensive re-design using digital technology that delivers on wider national and societal aspirations particularly in relation to empowering people.” - Strategic Priorities for Technology Enabled Care

We aim to be:

- Using digital technology as a driver of transformational change in local systems working towards the ‘Digital First Service Standard’
- Achieving ‘whole’ system digital health and social care that builds on the full range of TEC, such as Home Mobile Health Monitoring, video-conferencing, telecare, and online tools
- Ensuring that our TEC work collaborates with other change and improvement programmes, investing only in approaches that have been shown to be cost effective
- Working within the national programme on service transformation (Domains C and F in the national strategy)

To achieve this we will...

- We shall test implementation and scale up of ‘Attend Anywhere’ capabilities in line with ‘The Modern Outpatient’ and redesign of community services.
- We shall phase in ‘Florence’ home and mobile health monitoring for hypertension where appropriate and cost effective.
- We shall explore the potential to use ‘Florence’ for other long term conditions.
- We shall continue to work with our Local Authority Partners in moving from analogue to digital services in telecare (Domain F in DH&C).
- We shall continue to work with our Local Authority Partners to explore and use new technologies to benefit the people we care for.
- We shall continue to collaborate with NHS24 and Scottish Government in testing selective digital priorities as business cases prove justifiable and as the national delivery plan for Domain C progresses.
Digital technologies bring enormous opportunities for Scottish public services – but they also bring with them new threats and vulnerabilities that we must take decisive action to manage. ‘Scotland’s Digital Health and Care Strategy’ has a specific Domain B, on Information Governance, assurance and cyber security.

A Public Sector Action Plan has been developed in partnership by the Scottish Government and the National Cyber Resilience Leaders’ Board (NCRLB). It sets out the key actions that the Scottish Government, public bodies and key partners will take up to the end of 2018. The aim is to ensure that Scotland’s public bodies work towards becoming exemplars in respect of cyber resilience, and are well on their way to achieving this by the end of 2018. Further actions will be developed along with the Domain B action plan from the national strategy.

The action plan focuses on public bodies. Delivery of the action plan will be coordinated and led by the Scottish Government’s Cyber Resilience Unit, working in partnership with the NCRLB and Scottish public bodies. Wherever possible, the Scottish Government will work with key partners in the wider public sector, including local authorities, and universities and colleges, to promote an aligned approach to work on cyber resilience.

NHS Forth Valley will work with and contribute to this national action plan.

To achieve this we will ...

- Form a local Cyber Resilience group - led by Director of Facilities and Infrastructure
- Develop a local action plan agreed to meet national requirements (Domain B in DH&C)
- Work towards achievement of Cyber Essentials certification
While there are many new priorities itemised throughout this strategy we also need to take care of important system upgrades, maintenance and resilience arrangements, infrastructure refreshes and new build requirements. Some of these are listed below:

- Upgrades to Order Comms, document management and other systems as required.
- Forth Valley Royal Hospital network replacement incorporating Data and Wireless networks. [14]
- Clinical Portal system review/refresh and enabling sharing with neighbouring Boards. [6]
- Stirling Health and Care Village ICT infrastructure and applications. [13]
- Robustly maintain developments in cyber-security and associated security arrangements as detailed above.
- Upgrade of existing core corporate operating systems and office based applications. [4]
Financial Strategy

We have confirmed revenue and capital funding sources to support implementation and delivery of Electronic Patient Record (EPR) and Patient Management System (Trakcare) developments which have been approved by the NHS Board and built into the NHS Forth Valley Financial Plan.

There is a further non-recurring funding stream from Scottish Government (‘eHealth Strategic Fund’) which is a ring-fenced resource to support a range of other eHealth priorities. Costs in relation to Office applications update and Community PMS systems replacement have been assessed, however full financial implications are not yet confirmed.

The annual Delivery Plan for future years will include a detailed financial plan outlining the funding and cost recovery strategy for annual priorities.

Summary

The Strategy sets out the direction of travel for NHS Forth Valley over the next four years. The plans are consistent in supporting the local Healthcare Strategy and to be able to provide the technical and patient facing technology to underpin the service reconfiguration.

In delivering the Digital & eHealth Strategy it will be important that the bedrock of the technology is firm and with proper core system lifecycle reviews around key systems for community, acute and supporting the exchange of information across health and social care.

Cyber resilience and robust technical infrastructure is critical going forward and it is right that a prominence is given to these key areas without which the enabling parts of the strategy will simply not be capable of being delivered.

Detailed annual delivery plans with accompanying financial plans will be produced which will build in national and local changes around funding models and these will be reviewed and approved by the Senior Leadership Team on a regular basis.

An indicative timescale of the various deliverables and technical developments is provided within the appendices and these will be reviewed regularly and matched with the annual financial plan.
Summary of main application developments

This table lists the main applications which will be introduced or refreshed during the lifetime of this strategy. The numbers in red map to the same items in the body of the document. Appendix 2 gives a rough timeline for these developments.

[1.] Trakcare PMS replacing three existing PMS systems
[2.] GP system replacement
[3.] Community system replacement
[4.] Office desktop software replacement
[5.] National CHI programme developments
[6.] Clinical Portal review/refresh
[7.] New Health and Social Care Portal
[8.] Delayed Discharge system replacement
[9.] New National Patient Portal
[10.] National Radiology and Theatres systems changes/replacement
[11.] New Technology Enabled Care home and mobile applications
[12.] Implement mobile handheld Badgernet maternity records

In addition NHS Forth Valley will work towards the ‘Digital First Service Standard’ as specified in the national strategy DH&C.

Summary of main Infrastructure developments

This table lists the main network and technical developments during the lifetime of this strategy.

[13.] Stirling Health and Care Village developments
[14.] Forth Valley Royal Hospital network replacements
[15.] Health and Social Care Partnerships’ networks and data/application sharing developments
[16.] Telecoms strategy developments
[17.] Expanding use of virtual consultations and telehealth
[18.] Expanding provision of mobile devices
[19.] Provision of secure remote access to systems from NHS and partner organisations including third sector
[20.] Radiology shared services redesign
## Summary of main Information Services Developments

This table lists the main developments within Information Services during the lifetime of this strategy.

1. Develop methods to identify high risk individuals and integrate within partners services to help these patients keep well and out of hospital.
2. Improve recording of diversity information and monitoring in partnership with relevant equality and diversity services.
3. Implement the General Data Protection Regulation during 2018 in line with legislation and in partnership with Information Governance and national guidance.
4. Contribute to evaluation of ‘Closer to Home’ and ‘GP Fellows’ and other new programmes as business cases justify.
5. Work with partners on implementation of the Carers Assessment and duties under the new Carers Act 2018.
6. Implement relevant mental health data and performance information in line with national programmes and where business cases justify.
7. Break down existing information assets to report at locality level to support partnership working rather than existing health board level.
8. Contribute to implementation of knowledge and skills as identified in this strategy.

- In addition NHS Forth Valley will work within the National Strategy Domain E, the National Digital Platform as benefits accrue and as required by Scottish Government.
## Timeline and Delivery Plan

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<th>Major Project Timelines</th>
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<td>1. Trakcare migration</td>
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‘Shaping the Future’ – A Supporting Digital & eHealth Strategy 2018-2022”
## Appendix 2

### Major Project Timelines

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Appendix 3

Delivery Governance

The current governance structure for delivery of elements of this strategy will be governed by the eHealth Governance groups in the figure below. An annual delivery plan will be produced as separate documents. In addition NHS Forth Valley will work with Scottish Government on the national leadership programme (Domain A) and transition process (Domain F) of ‘Scotland’s Digital Health and Care Strategy’. This will be reflected in our governance structures in future as appropriate.
### Cross map of ‘Shaping the Future’ priorities and Actions

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<tr>
<th>Major Project Timelines</th>
<th>Prevention</th>
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### Appendix 4

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