Improving lives

NHS
Sheffield Health Partnership University
NHS Foundation Trust

Board of Directors
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Confidential/public paper:	Public
Report Title:	RiO update
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Presented by:	Dawn Greaves, chief digital information officer Phillip Easthope, executive director of finance
Vision and values:	RiO optimisation aligns to the trust's values of **we work together** and **we keep improving**. It supports the strategic aim of effective use of resources, and the use of RiO will facilitate us to become a digitally enabled Trust
Purpose:	This report provides assurance of all outstanding RiO optimisation work. It also assures that the RiO EPR implementation has already delivered benefits and will enable further benefits as additional functionality is deployed and optimised. It also outlines a phased Benefits Realisation Plan to support structured measurement of future benefits.
Executive summary:	The Trust successfully deployed the RiO mental health EPR system in March 2025. The approach clinically led, technically and operationally supported and was recognised in the UK IT awards. The Board then supported a continued structured approach to optimisation. This focused on enhancing the effectiveness and efficiency of RiO across the organisation. Improvements delivered were configuration improvements, data warehouse optimisation including reporting capability and enhancements, system integrations, waiting list development, PROMS forms and devices and training refresh. We are now in a position where all areas can now be refined, improve usability and ensure all is better aligned with service needs and clinical workflows for teams that need it. A number of optimisation schemes remain outstanding - the Patient Flow Management (PFM), Personal Demographic Service (PDS) synchronisation, the Electronic Document Management (EDM) system, the creation of eLearning modules, RiO document storage migration, benefits realisation. These continue to be managed by business-as-usual resources. This report also discusses recent performance issues that have been experienced by users of RiO. Along with the resolution that has been put in place and future plans to prevent this issue from re-occurring. The RiO EPR implementation has already delivered clear risk reduction, improved clinical experience, and early productivity gains, replacing the high-risk Insight system with a modern, interoperable, and more secure platform.

	Key benefits realised: • Higher digital maturity (1.5 → 2.2) and improved data quality for NHS reporting • Stronger cyber security posture and progress toward national standards • Faster, more stable system performance and reduced duplication for clinicians • Standardised care plans and improved assessment workflows Further benefits will be unlocked through: • Patient Flow Manager (benefits measurable from October 2026, baselines to support realisation are being obtained in May / June) • Wider rollout of SMS appointment messaging • RiO EVO upgrade to enhance efficiency and integration A **phased Benefits Realisation Plan** reflects differing system maturity across services: • **Phase 1 (Apr 2026):** Tranche 2 services operating on optimised configuration • **Phase 2 (Oct 2026):** Tranche 1 services following refresher training completion

Which strategic objective does the item primarily contribute to:					
Effective Use of Resources	*Yes*	**x**	*No*		
Deliver Outstanding Care	*Yes*		*No*	**x**	
Great Place to Work	*Yes*		*No*	**x**	
Reduce inequalities	*Yes*		*No*	**x**	

What is the contribution to the delivery of standards, legal obligations and/or wider system and partnership working.	
RiO supports partnership working, legal compliance and delivery of national standards by improving interoperability, enabling seamless information sharing with partners through NHS Spine and GP Connect; strengthening data protection and cyber security to meet UK GDPR, the Data Protection Act, DSP Toolkit and Cyber Essentials requirements; and providing standardised workflows and higher-quality data that align with NHS Oversight Framework reporting and national digital standards. Together, these capabilities enhance coordinated care, ensure statutory obligations are met, and provide a consistent, standards-aligned digital foundation across services.	
Board assurance framework (BAF) and corporate risk(s):	BAF 0023 There is a risk that the organisation will not fully optimise the benefits of the electronic patient record system due to ongoing challenges in digital adoption, digital literacy, workforce capability, and sustaining an evolving digital strategy, resulting in reduced clinical quality, safety, efficiency, and the organisation's ability to meet current and future service needs
Any background papers/items previously considered:	N/A
Recommendation:	Board of Directors asked to: • acknowledge the **assurance** provided in the report, particularly in relation to the benefits management approach taken in relation to patient flow manager.

Sheffield Health Partnership University
NHS Foundation Trust

RiO update – Trust Board, 28 May 2026

Dawn Greaves - Chief Digital Information Officer

Zoe Sibeko – Head of Programme Management office

Improving lives

Executive Summary

The Trust successfully deployed the RiO mental health EPR system in March 2025. The approach was clinically led, technically and operationally supported and was recognised in the UK IT awards. The Board then supported a continued structured approach to optimisation.

There have been some delays with elements of the optimisation programme. Delivery continues with a revised timeframe as detailed below:

- Patient Flow Management (PFM) – operationally live from 15 May 2026
- Personal Demographic Service (PDS) synchronisation – live from 29 May 2026
- Electronic Document Management (EDM) store – aiming to have completed by 27 May 2026
- Creation of elearning modules – due for completion by end of May
- Benefits realisation – ongoing

These outstanding items continue to be managed by business as usual resources.

This report also discusses recent performance issues that have been experienced by users of Rio. Along with the resolution that has been put in place and future plans to prevent this issue from re-occurring.

1. PFM/PDS sync

PFM is a tool and workflow solution that helps services to track, co-ordinate and optimise how patients move through care settings across the Trust. It's a feature within the Rio electronic patient record to manage overall operational flow. The solution runs on wall mounted interactive touchscreen monitors in inpatient areas.

The solution was due to go live in March but due to an issue being identified, the go live was postponed until a resolution was found. The supplier did identify the solution to the issue, and we asked them to consider whether we could simultaneously resolve a key issue with patient records not synchronising with PDS under certain circumstances. The supplier agreed to this request also and an options paper was developed for formal approval at the Clinical Safety Design Executive Board (CSDEG) on 9 April and Board for Improving Clinical Systems (BICS) on 21 April.

Testing has been undertaken on both fixes, and they were added to the live system on 29 April 2026. A support package was put in place that involved group ward manager meetings and on-site presence from digital staff to ensure inpatient staff were competent at using the new solution. PFM has been operational since 15 May 2026 and is being utilised in the daily bed meetings.

2. eDischarge letters

Using the Message Exchange for Social Care and Health (MESH) integration Rio is able to electronically send discharge letters to GP practices. Using data already captured in the patient record, the clinician will compile the remaining data for the discharge letter and sends it electronically rather than exporting to email to send to a GP practice or sending a printed/posted letter.

Successful testing has been undertaken during w/c 20 April 2026. A working group was established to agree the new workflow and implementation approach. This work is due to be fully live across all areas by the end of May 2026.

3. eLearning

As part of the contract for Rio, functionality to develop elearning was purchased. This was not progressed as part of the main Rio implementation/upgrade so it was agreed that it would be transported to align with the PFM project. A suite of 16 elearning packages have been developed in bitesize sections, ranging from the fundamentals of using Rio to more advanced creation of assessments and use of PFM. The packages are progressing through testing before being finalised for use across the Trust. This work is due to be completed by the end of May 2026.

4. Electronic document management store

TAG are migrating the Rio electronic document management store to new server infrastructure across all their customers. We had scheduled downtime on 7 May 2026 to complete our migration. During the smoke testing phase two issues came to light that hadn't occurred during the previous rounds of testing. These were related to the Rio advanced search and the ability to create letters in Rio. Our downtime period was extended initially to allow more time to resolve but TAG were unable to resolve the issues so roll back procedures were commenced. Following roll back the issues still remained. On investigation the issue turned out to be local to the testing device and wasn't an issue across all Trust devices. It was related to a Microsoft issue, which has a fix available, should it re-occur.

Lessons learnt are around ensuring we test with multiple clinical staff who are on duty at the time, not just IT staff. Also to ensure we have IT support for any future work, not just the IT on-call resource.

We are now in the process of agreeing a future date to complete the work. Provisional date currently is 27 May 2026 but this requires internal approval to proceed.

5. Performance issues

On 15 April 2026, a large number of calls were logged with the Rio support team around poor performance of the system. Following internal review, a call was logged with the supplier to assess and resolve. It was identified that our server infrastructure was not adequately scaled to support a Trust of our size. The Access Group (TAG) recommended to urgently upgrade the infrastructure to increase resources and improve performance.

Approval was sought through email via the chair of the Clinical Safety Design Executive Group on 15 April 2026.

At 6pm on 15 April 2026, TAG commenced the work. Focussing on two servers at a time to ensure there was no loss of availability. Within an hour all the servers had been updated from 2 CPU Cores per server to 4 per server, and from 8GB RAM to 12GB RAM, which is significantly higher than a Trust our size should need, so this is future proofing our infrastructure.

We have contracted with TAG for a managed service for Rio, as part of this, their business-as-usual monitoring systems should have identified much earlier that there were issues with our server resource capacity. TAG are now reviewing their monitoring approach to ensure they are proactively alerted to any issues in the future, so they can proactively identify and resolve any future performance issues before they arise. We expect to hear analysis from their investigations

as to why we weren't automatically alerted as soon as the servers started under performing and their plans to ensure this doesn't reoccur.

We now have 6 weekly scheduled account management meetings with TAG where issues like this will be discussed in much more detail.

6. Financial analysis

A further report will follow post closure of the Rio optimisation phase, that will analyse the planned costs alongside the actual costs and delays to the programme.

7. Benefits analysis

Purpose

This provides assurance that the Rio EPR implementation has already delivered benefits and will enable further benefits as additional functionality is deployed and optimised. It also outlines a phased Benefits Realisation Plan to support structured measurement of future benefits.

Identified benefits

In 2024 the EPR business case was reviewed which led to the benefits being revisited due to concerns regarding the robustness of the original benefits assessment and the deliverability of the programme outcomes. The revised benefits form the basis of the benefits realisation plan.

Benefits realised so far

Risk diminution

The EPR replacement was driven not only by efficiency aims but by significant risks linked to the legacy Insight system. These included: cyber security vulnerabilities, limitations in meeting modern reporting and data governance requirements, lack of interoperability and increasing operational challenges in maintaining a bespoke, non-scalable platform reliant on specialist knowledge. Transitioning to Rio has mitigated these risks and delivered a range of benefits not fully captured in the business case.

Implementation of Rio has:

- Increased the Trust's Digital Maturity Assessment score from 1.5 to 2.2, with further improvement expected as functionality expands.
- Improved data accessibility and alignment with NHS Oversight Framework (NOF) reporting, enabling more accurate benchmarking against peers through standardised configuration.
- Improved interoperability and connectivity with NHS spine and GP connect supporting efficiencies in clinical and administrative practices.
- Enabled progress toward Cyber Essentials certification, strengthening assurance around cyber security controls.
- Supported movement toward achieving 'standards met' within the Data Security and Protection Toolkit, evidencing alignment with the National Data Guardian's standards.

Improved clinician experience and productivity

Clinicians report several benefits which collectively contribute to productivity gains and improved user experience: the system is faster; it autosaves so there is no risk of information being lost and duplication of effort to re-input; there are fewer steps needed to log in to the system and the system is stable, so downtime is greatly reduced compared to Insight. The implementation of Rio has supported the reduction of the Trust's costs for the Clinical Negligence Scheme for Trusts (CNST) by £85k since March 2025 to date. With the implementation of digital patient reported outcome measures (PROMS), we have saved approximately £700 in clinician time (non-cash releasing).

Care plan standardisation

Care plans have been standardised, reducing variation and inconsistency, supporting better care plan compliance.

Reduced duplication of assessment

The comprehensive assessment form pulls through information, reducing duplication, thereby improving accuracy and efficiency. We also reduced the number of assessment forms from 702 with Insights to 164 active forms in Rio, which supports improved data quality.

Opportunities to realise further benefits

- Patient Flow Manager provides real time visibility of patient journeys, supports coordinated care across services, and delivers flow related benefits through the Home First Programme, with measurement beginning six months after the May 2026 launch.
- Wider rollout of SMS appointment messaging.
- Rio EVO upgrade, improving efficiency, user experience, and integration with wider NHS services.

Optimisation

Changes to how appointments are defined in Rio have reduced the number recorded, creating a perception of lower productivity. However, the new definitions align with national standards and support more meaningful benchmarking. Staff familiarity with the system is still developing, leading to temporary reductions in data accuracy. Targeted support and refresher training are underway. There is also a focus on ensuring quality recording of data related to protected characteristics, diagnosis and activity recording. A stabilisation period is built into the realisation plan as shown by the phases below.

Benefits Realisation Plan

The rollout of Rio has taken place in two tranches, resulting in different levels of system maturity across services. Tranche 2 teams are using a more optimised configuration, while Tranche 1 services require further familiarisation and refresher training before benefits can be reliably measured. This plan therefore adopts a phased, maturity-based approach, recognising that benefits will emerge at different times, depend on effective adoption and optimisation, and in some cases will only be measurable once key workflows are fully embedded.

A phased approach is recommended due to differing levels of system maturity across services.

Phase 1: Tranche 2 (from June 2026)

- Tranche 2 services, including Adult Services and AHPs
- 12 months post–Go Live and operating on optimised configuration

Phase 2: Tranche 1 (from October 2026)

- Tranche 1 services, including Older Adults
- Over 12 months post–Go Live but limited by training
- Dependent on 80%+ completion of Rio refresher training

Patient Flow management (October 2026 onwards)

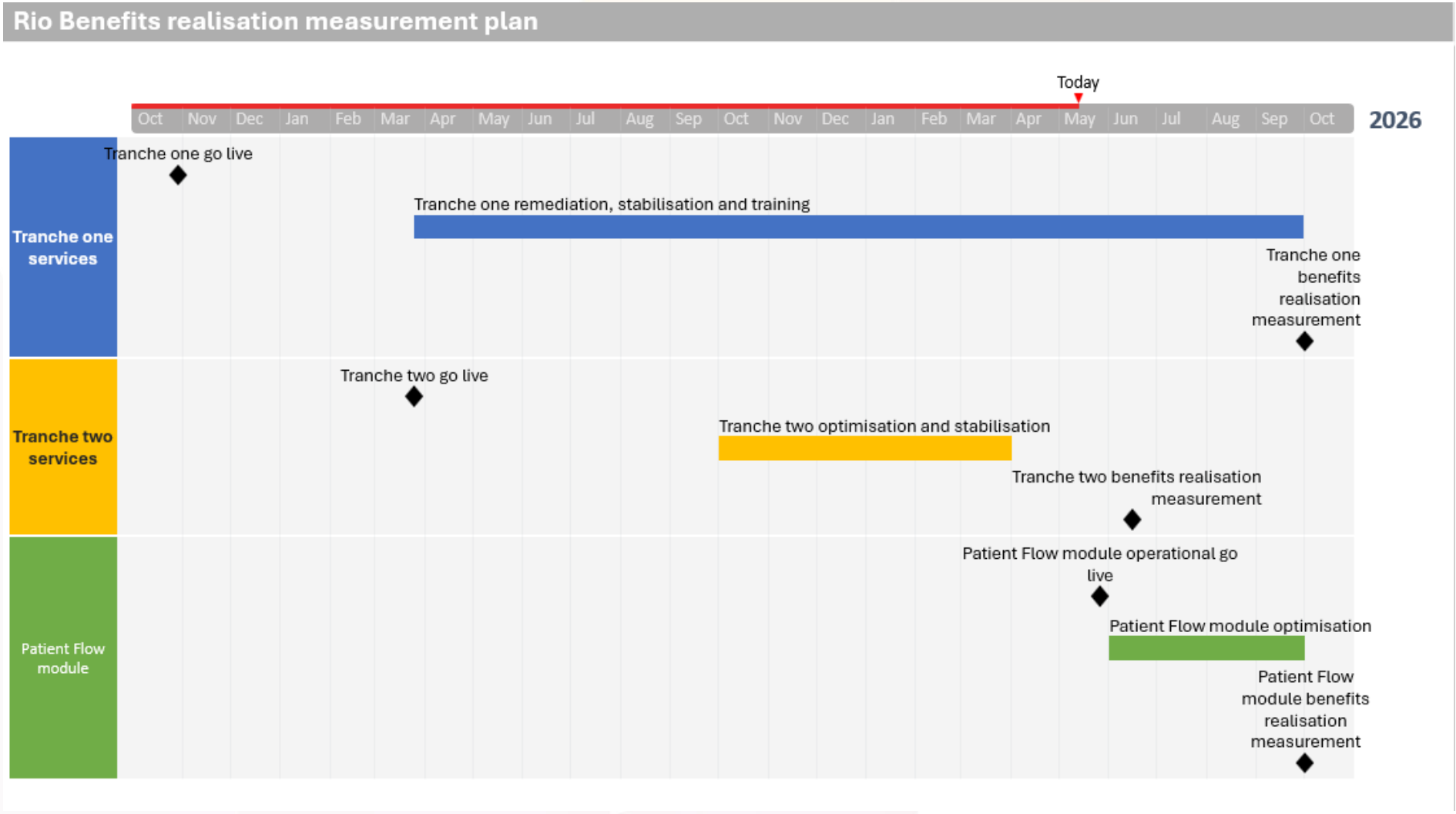
Outline benefits register developed with proposed metrics to measure benefits. Meeting in May to agree baselines and targets.

Appendices

- Appendix 1: Benefit profiles
- Appendix 2: Service Benefits realisation measurement plan DC2 document store move

Appendix 1: Benefit profiles

Updated benefits from rationalisation process in 2024.

Type	Benefit Title	Benefit details	Full Year Saving	Baseline	Timeline	Dependency
CRB1	Reduction in clinical correspondence	Improved data sharing due to increase in amount of available information in SHPU	27K	50,000 items/ 175,000 sheets of paper sent manually 50p postage, 5p per printed sheet	Initial assessment of savings May 2026 (Finance) Engagement with service managers post assessment	
CRB7	Reduction in CNST premium	Reduced number of claims and CNST premium	68K	Figure paid in April 25 TBC	Finance to confirm	
NCRB6	Release of VM infrastructure	Insight uses 20 VM's and other tools which will be released for use	Cost avoidance in the future		PID developed, plan to follow	Dependencies identified in the PID
CRB3	Reduction in clinical administration	information in SHPU and partner organisations through data sharing and cooperation	34K	No baseline and we are not data sharing with other organisations		
CRB4	Time savings giving improvements in efficiency and productivity - admin	Improved attendance and care plan compliance, reduced assessment duplication (30 mins per day) c 15 posts	510K	No baseline	Tranche 2 April 2026 onwards Tranche 1 October 2026 onwards	SMS functionality rolled out wider
NCRB1	Time savings giving improvements in efficiency and productivity - clinical	Improved attendance and care plan compliance, reduced assessment duplication. Due to ineffiency and instability of insight (30 mins per day per user, 2500 users = 150 WTE)	4K	No baseline	Tranche 2 April 2026 onwards Tranche 1 October 2026 onwards	SMS functionality rolled out wider
NCRB2	Reduction in waiting list through improved clinic utilisation	Clinic utilisation visibility, able to reduce empty slots (£100 per empty slot, if assume 300 clinics, 1 empty per week 150K)	150K	No baseline	Tranche 2 April 2026 onwards Tranche 1 October 2026 onwards	
NCRB7	Time spent investigating SI and near misses	Senior management time	0	No baseline		
NCRB8	Improvement in patient level costing data	4hrs per month band 8a	1.5K	No baseline		

Appendix 2 – Service Benefits Realisation Plan