

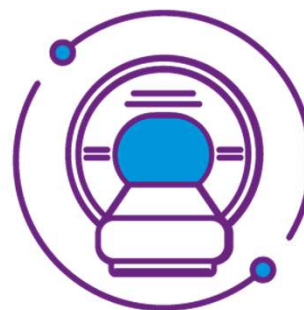
# Scottish National Radiology Reporting Service (SNRRS) Bank

12 Month Pilot Review  
July 2020 – June 2021

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# Summary

As part of the Scottish Radiology Transformation Programme (SRTP), the Scottish National Radiology Reporting Service (SNRRS) Bank was created with the aim of establishing the first national radiology reporting service within NHS Scotland as an alternative to 3rd party outsourcing.

The 12 month pilot (July 2020 – June 2021) was agreed to prove that a safe and transparent national cross boundary radiology reporting service was possible. This is a review of the service following the pilot developed in collaboration with the Golden Jubilee, the host board.

The pilot proved:

- ✓ Viability of creating a national reporting bank that is no more expensive than outsourcing
- ✓ Robust IT connectivity and systems
- ✓ Appetite from NHS Scotland consultants to do additional work
- ✓ Ability for consultants to report from home from all over Scotland
- ✓ Ability to pay consultants for work done outside of contracted sessions
- ✓ High standard of reporting
- ✓ Reliable turnaround times
- Cost avoidance for pilot was £548k (33%) v outsourcing (IT, staff and equipment covered by the SRTP)
- All boards are able to connect reporters to work for SNRRS, 8 boards were donating exams by end of pilot
- 60k exams reported by 56 consultant radiologists
- 50 workstations deployed to reporters
- Payment model developed that provides flexibility for radiologists to report at any time
- Feedback from health boards was positive with 90% satisfaction rate of the SNRRS service
- 99.6% of exams were reported within 5 working days

**The SNRRS Bank pilot succeeded expectations and became a permanent part of radiology services at NHS Golden from 29<sup>th</sup> November 2021.**

# Radiology in Numbers

With increasing demand for radiology services and a shortfall in consultants to report exams, boards have been finding alternative solutions in order to bridge the gap between demand and capacity.

**90%** of patients in hospital supported

**3.4%** growth in demand per year

**31%** shortfall in consultant radiologists

**7,572** patients waiting over 6 weeks

**£14.5 million** spent on outsourcing & insourcing

In 2018/19 there was £14.5m spent on outsourcing and insourcing costs. Almost half of this (£6.7m) was to third party radiology companies.

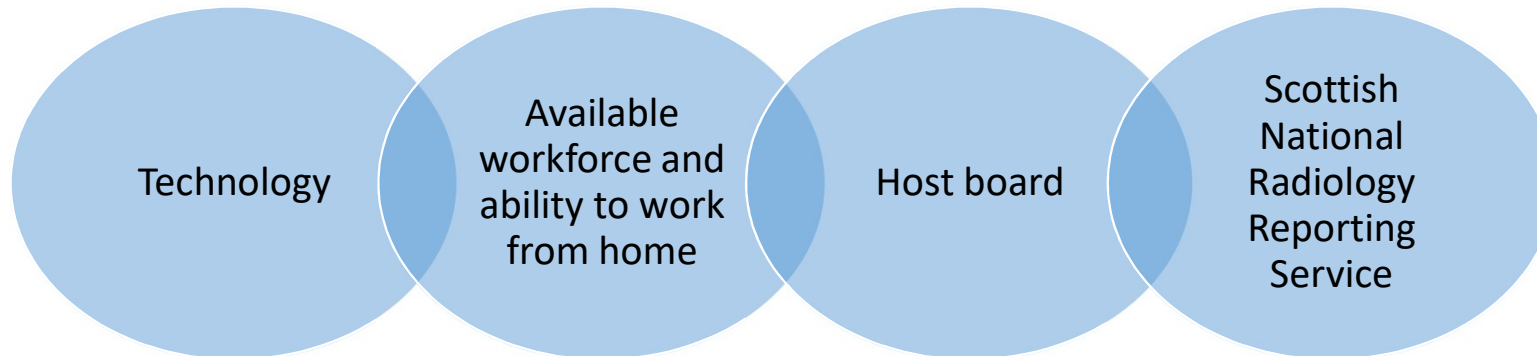


# Transforming Radiology Reporting



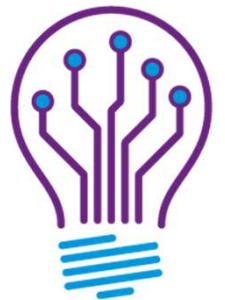
The new IT connectivity enabled cross boundary radiology reporting between NHS Scotland health boards for the first time

A health board was required to host the pilot of the service, Golden Jubilee volunteered



Some radiologists keen to work outside of contracted sessions articulated a preference to do this for the NHS over outsourcing companies if they report at home

With the key elements in place, the first national radiology reporting service was created



# What is the SNRRS: Objectives

Provide an effective alternative to outsourcing radiology exams for health boards (SNRRS Bank)

Provide a flexible reporting model for additional work (SNRRS Bank)

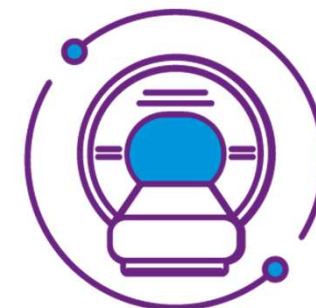
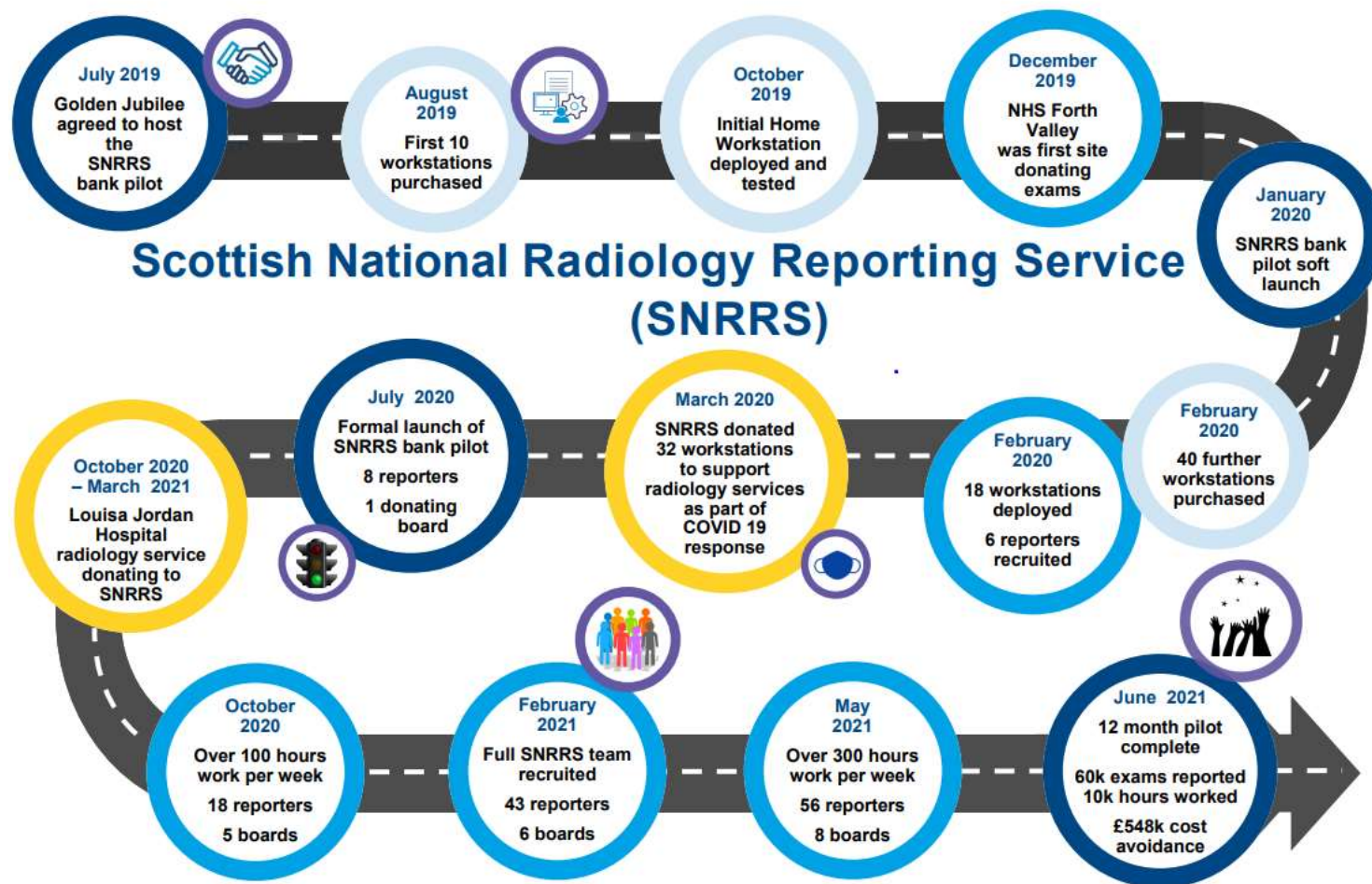
Utilise existing reporting capacity across Scotland

Enable consultant radiologists to report from home

Explore ways to create subspecialty networks

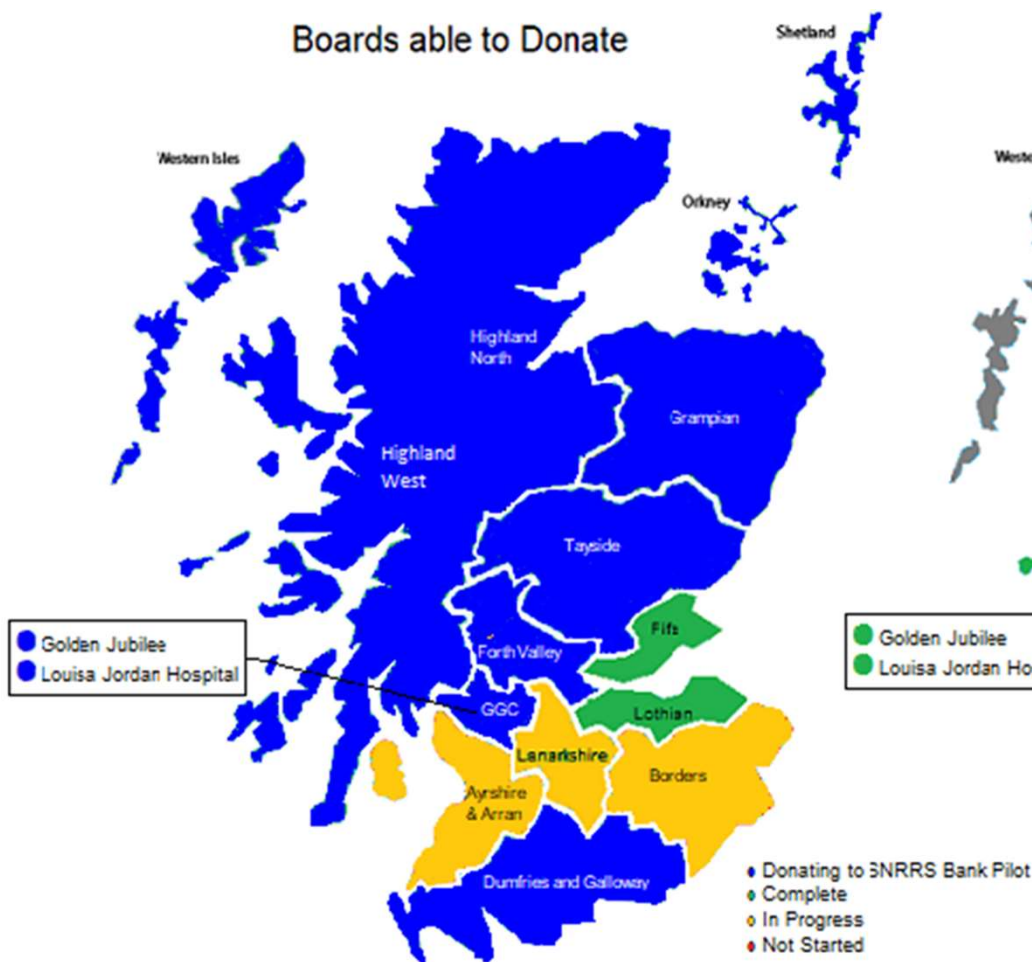


# What is the SNRRS: Roadmap

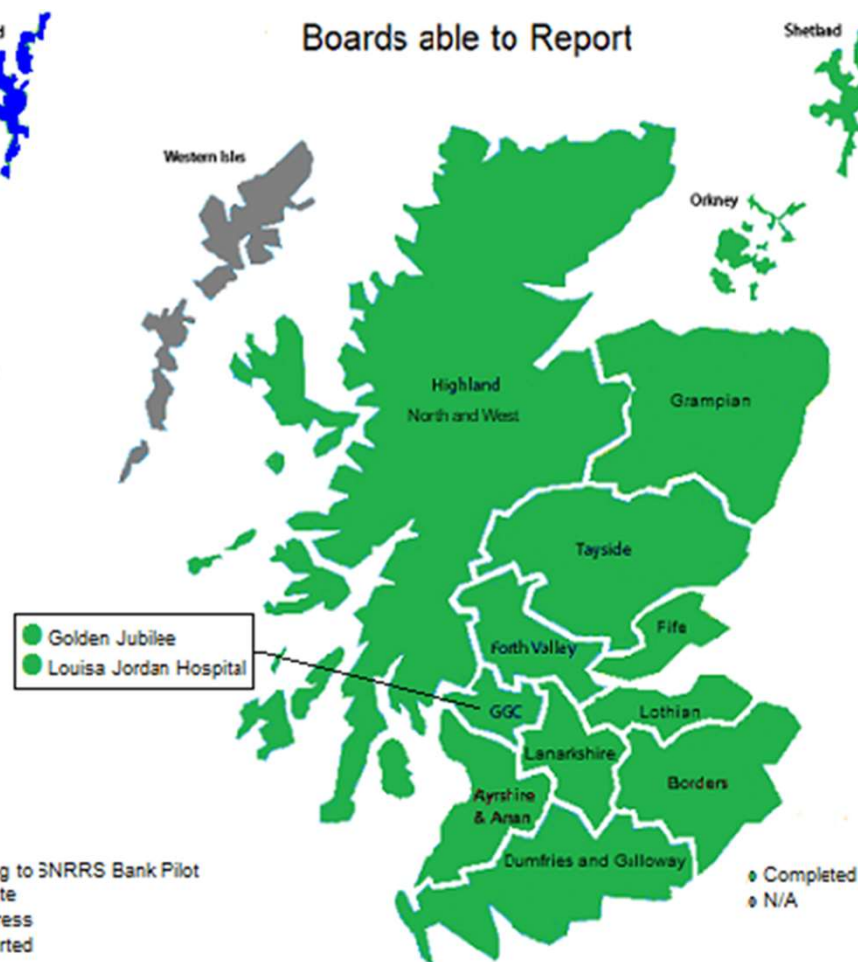


# IT Connectivity Maps

Boards able to Donate



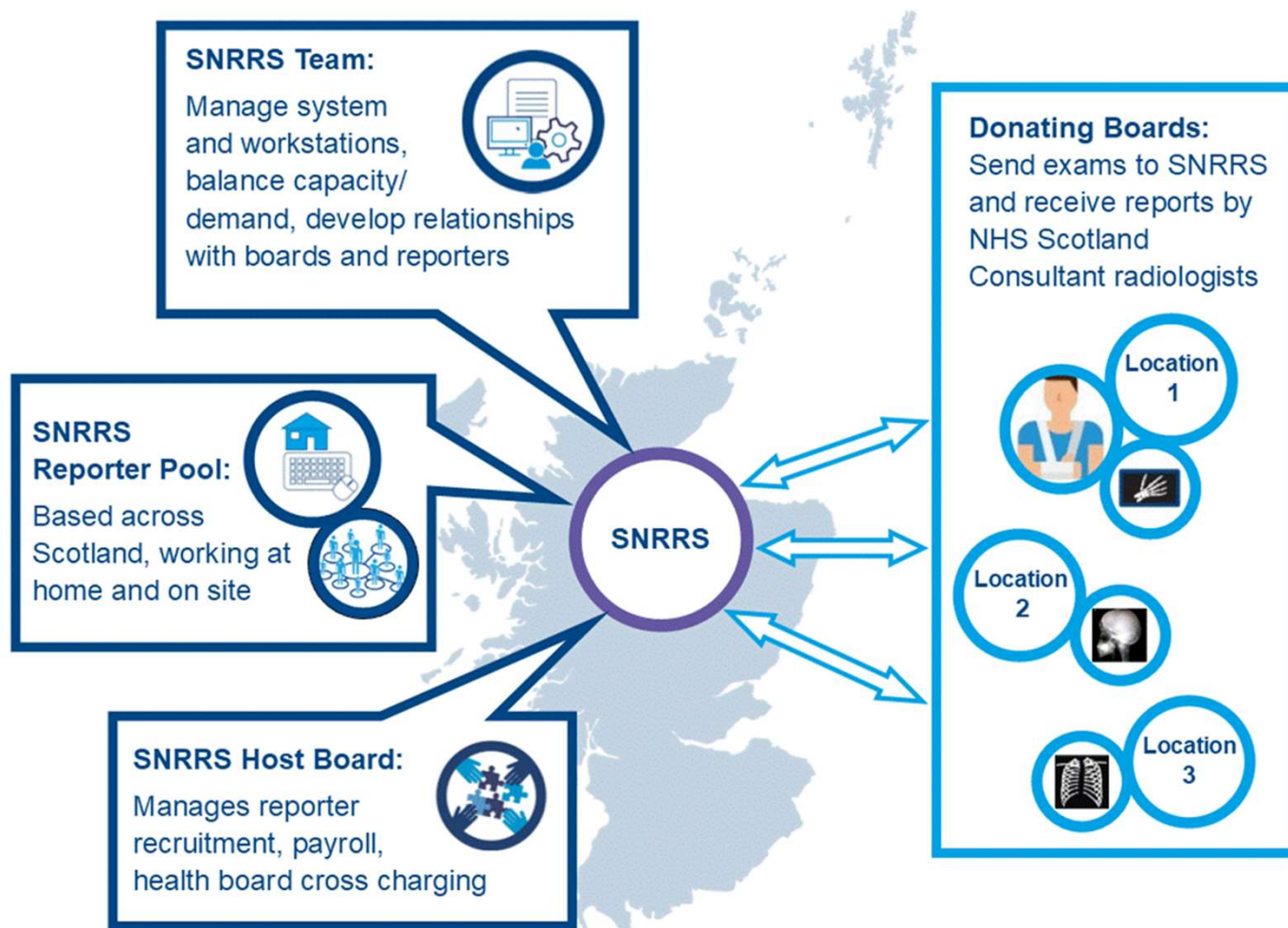
Boards able to Report



Due to local IT projects overrunning, Ayrshire & Arran, Lanarkshire and Borders were unable to participate in the SNRRS bank pilot. It is expected that all boards are expected to be able to donate by May 2022.



# What is the SNRRS: How it works



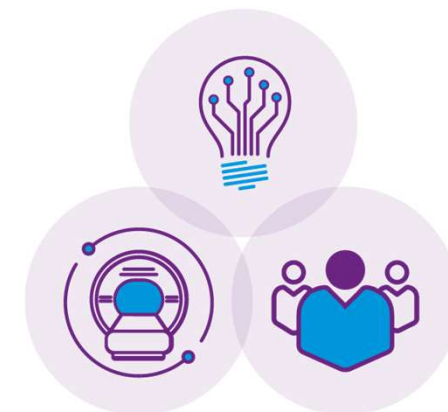
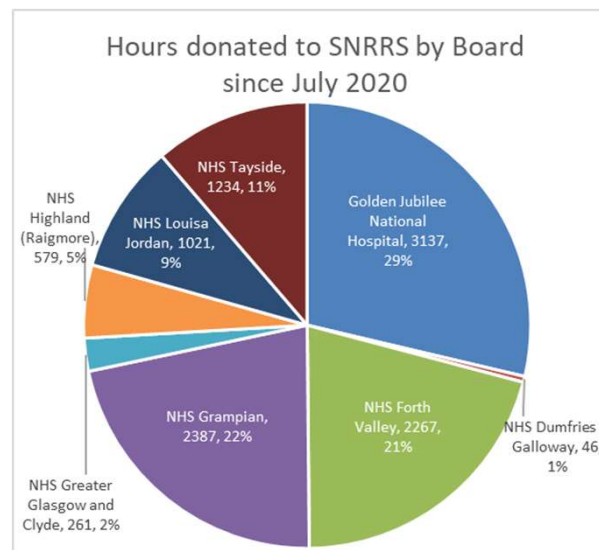
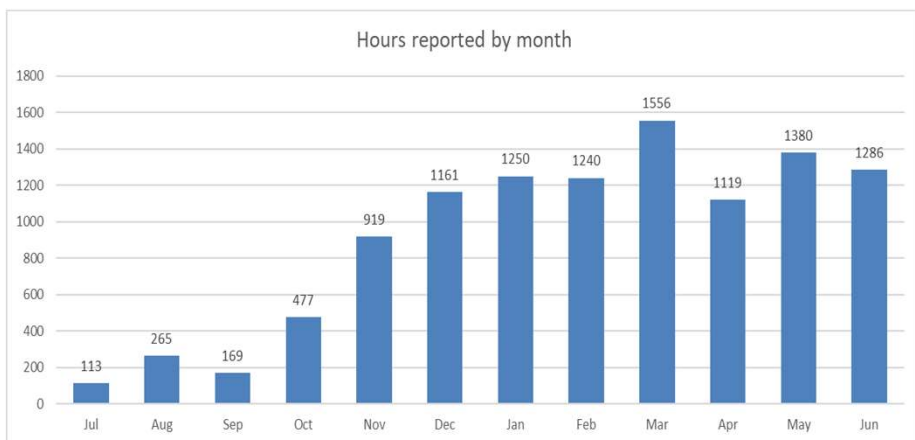
# Performance – 12 month report

- 60k exams reported by 56 consultant radiologists
- Cost avoidance to health boards donating exams is £548k
- 8 boards actively donating: Golden Jubilee, Forth Valley, Grampian, Tayside, Highland North, Dumfries & Galloway, Greater Glasgow and Clyde and Western Isles
  - (To support the Covid-19 response, SNRRS reported all CTs performed at Louisa Jordan from October 2020 - March 2021)
- 99.6% of exams have been reported within the agreed turnaround time of 5 working (7 calendar) days

Modality	Exams reported	Hours Reported	% Hours	Cost to NHS	Av. outsourcer cost	Cost Avoidance	Cost Avoidance %
CT	15739	5515	50%	£540,162	£891,602	£351,440	39.4%
MR	12869	3897	36%	£381,649	£561,660	£180,011	32.0%
XR	31384	1491	14%	£146,057	£157,845	£11,788	7.5%
XR Mammo**	153	51	0%	£4,995	£9,180	£4,185	45.6%
MRI Breast**	13	9	0%	£870	£1,430	£560	39.2%
<b>Total</b>	<b>60158</b>	<b>10963</b>	<b>100%</b>	<b>£1,073,733</b>	<b>£1,621,717</b>	<b>£547,984</b>	<b>33.8%</b>

\*\* Mammograms and MRI breast are double reported

TOTAL EXAMS	0	1	2	3	4	5	6	7	8	9	10+
<b>60158</b>	<b>23007</b>	<b>13335</b>	<b>8102</b>	<b>5910</b>	<b>3915</b>	<b>2877</b>	<b>2091</b>	<b>707</b>	<b>114</b>	<b>45</b>	<b>55</b>
Percentages	38.2%	22.2%	13.5%	9.8%	6.5%	4.8%	3.5%	1.2%	0.2%	0.1%	0.1%
Accum %	38.2%	60.4%	73.9%	83.7%	90.2%	95.0%	98.5%	<b>99.6%</b>	99.8%	99.9%	100.0%



# Reporter feedback

"Feel a bit more invested personally on this project as I am helping to reduce reporting backlogs for other areas in Scotland"

Share+  
"Actually quite easy to use, VR learns quickly!"

"Standard employee forms need to be modernised in light of remote working ... have to send out a few e-mails to find out how my application was progressing. Got there in the end though!"

"Secondary employment form requiring sign off from Clinical Lead and AMD introduced further delay in the process. Time taken to start reporting for the Bank Pilot via a home workstation is longer than I had expected"

"Have been VERY impressed with communication and support so far. keep up the good work"

"Good one on one training and time to get used to the system before starting"

"Very impressed with how Soliton appear to be keen to work with issues we have and do their best to improve our efficiency. Looking forward to personalising VR code templates in future hopefully"

"Overall good, but there is sometimes an issue with availability...A wider variety of examinations could be added to the neuro worklist"

"Happy working with the team... interaction I have had has been pleasant and you feel that we are all working together with a common purpose"

# Health board feedback

“SNRRS has provided a great service to NHS Grampian. They provide high quality reports and all scans are reported much sooner than the projected 5 days. They offer additional capacity when they can. Any issues are dealt with very promptly and efficiently. The cost saving to our board has been over £100k in 7 months.”

**Jennifer Fraser**  
NHS Grampian

“NHS Tayside are part of the pilot scheme and have been donating exams to be reported by SNRRS from the beginning. We have established excellent communication links between the Workflow Team and the Admin Team at Radiology. Any issues are quickly discussed and are always resolved satisfactorily. We have regular meetings to look at our donating patterns and to discuss future donating which we find very helpful. It's been a pleasure to be part of the pilot and hugely beneficial to NHS Tayside.”

**Janette Bownass**  
NHS Tayside

“Considerably cheaper than our existing outsourcing agency and better quality reports.”  
**Anon**

“Great communication, quick response when we email. You always try and help when we have any issues, to be honest we don't have anything negative to say about your service from our point of view.”

**Michelle Davidson**  
NHS Forth Valley

“I would just like to say how much we at Raigmore enjoy working with you all at SNNRS. Good communication from all and very professional, trained staff. Very good responses when we have any queries and/or issues. Good turnaround times and always kept informed of weekly allocation amount. Plenty of information to keep us up to date by receiving the newsletter. As someone who works closely with outsourcing companies, I find SNNRS to be one of the best I have worked with.”

**Toni Hope**  
NHS Highland

# Host board feedback

“NHS Golden Jubilee has collaborated with Boards across Scotland since 2002, and we are delighted to host the Scottish National Radiology Reporting Bank pilot to deliver reporting capacity as a truly Once for Scotland solution.

The pilot has rigorously tested the concept that this in-sourcing solution can be managed for NHS Scotland through working collaboratively with Boards and Radiologists from across Scotland to provide a cross boundary solution.

The data collected to date has demonstrated that SNRRS will ensure patients receive their radiology reports as quickly as possible, both aiding timely diagnosis and therefore access to treatment as early as possible, leading to improved outcomes.

NHS Golden Jubilee recently utilised the SNRRS to support the Imaging service at NHS Louisa Jordan to provide essential Imaging services during the Pandemic.

Following the successful Radiology Reporting Bank pilot, it is hoped this can be adopted as a Business as Usual Model and be expanded to support NHS Scotland’s recovery and remobilisation from the COVID-19 pandemic.”

**Lynne Ayton**  
Director, Heart, Lung and Diagnostic Division, Golden Jubilee Hospital

“NHS Golden Jubilee have worked in partnership with the SRTP to support the SNRRS. This partnership has required challenging traditional boundaries that exist within the NHS to achieve national reporting IT connectivity. Challenges included having a national payment model and governance structures in place to enable recruitment of Radiologists / Radiographers by one board which facilitates reporting for another. This staffing model is now working well.

Implementing the technology required to enable cross boundary reporting within NHS Scotland has been a significant challenge. All NHS boards have worked with the SNRRS Team and NHS Golden Jubilee to ensure this has been a success. IT Connectivity has been achieved in a relatively short period of time and is testament to the hard work and dedication of everyone involved. The SNRRS will ensure that the reporting capacity within NHS Scotland is maximised and will improve access to timely reporting of radiology exams by NHS Scotland reporters. NHS Golden Jubilee have been delighted to support this innovation.

As well as hosting the SNRRS Pilot, NHS Golden Jubilee have seen the benefits of utilising this service. The SNRRS Team run a very safe, efficient and friendly service.

The success of the SNRRS pilot has demonstrated that collaborative working between boards is an effective way to ensure that NHS Scotland has a sustainable, cost effective radiology reporting solution for the people of Scotland.”

**Caroline Handley**  
Radiology & Diagnostics Service Manager, Golden Jubilee Hospital

# Lessons learned

Area	What went well	What could be improved/ future thoughts
Recruitment	<ul style="list-style-type: none"> <li>• FAQ document well received by reporters</li> <li>• Forms required and process established early on in the pilot</li> </ul>	<ul style="list-style-type: none"> <li>• Explore ways to align recruitment as all reporters are NHS workers</li> <li>• Currently managed as a separate process at GJ – will change as move into BAU</li> <li>• Could explore advertising if we need a particular speciality or for newly qualified consultants</li> </ul>
Workstations	<ul style="list-style-type: none"> <li>• Easy process &amp; great communication from the SNRRS team</li> <li>• Installing Share+ application straight forward with clear instructions</li> <li>• Clear set up guides and labelling of kit for reporters</li> <li>• No/limited technical issues from users directed to local teams.</li> </ul>	<ul style="list-style-type: none"> <li>• All other equipment except base unit delivered straight to reporters homes and set up by SNRRS/3<sup>rd</sup> party – risk of damage / injury taking heavy kit in cars</li> <li>• Access to VPN network should be a unified policy across Scotland.</li> <li>• SNRRS IT support on site</li> <li>• Local IT teams need to be on board from the beginning</li> <li>• Explore option to use laptops – previously restricted due to contracts</li> <li>• Explore how to buy more workstations/laptops</li> </ul>
Clinical	<ul style="list-style-type: none"> <li>• Safe working framework developed</li> <li>• Created adverse events policy - Very small number of events logged within the pilot year and all resolved quickly</li> <li>• Paperwork in place</li> <li>• Documenting skill sets inc specialist skills</li> <li>• Requiring clinical sign off</li> </ul>	<ul style="list-style-type: none"> <li>• Agree frequency of reviewing skill sets (e.g. retirees)</li> <li>• Target newly qualified radiologists to join SNRRS</li> <li>• Add software to as many on site workstations as possible</li> <li>• Collate all critical alerts that were raised to understand main findings and share learnings</li> </ul>

# Share+ System Availability

Overall Net system availability – 98.1%

## Planned Downtime

**Total instances of planned downtime – 19 (114hrs)**

Planned Maintenance will always be carried out overnight and includes monthly security patching and updates.



## Lessons Learned

Through working with supplier the maintenance window has now been reduced to 5 hrs and has been moved to the optimal time to cause least disruption to service 1am-6am on the 3rd Thursday of the month.

## Unplanned Downtime

**Total instances of unplanned downtime – 13 (165hrs)**

Most of these instances were early on in the pilot, while the system was still under going changes. During the course of the year the amount of unplanned downtime has decreased.

Although Soliton provide 24/7 service cover for Share+, the SNRRS is currently only staffed Mon-Fri 9am-5pm, so any faults which happen out with these hours are not picked up till the next working day. Only 9.75hrs of the total unplanned downtime were within normal working hours and the issues were resolved very quickly.



## Lessons Learned

Although unplanned downtime figures are expected to be lower going forward, they will still remain relatively high compared to other clinical systems due to SNRRS staff only being available to log calls during their working day.

As the service grows and other work streams are introduced, it may be necessary to review staffing cover and introduce an on call element to their jobs to support any system downtime out with normal working hours.

# Next steps

Next step	Complete?
Obtain ongoing funding for SNRRS (current SRTP funding ends March 2023)	Yes – ongoing funding for SNRRS approved by Directors of Finance (from April 2023)
Final sign off at Golden Jubilee to move the service	Yes – signed off 23 <sup>rd</sup> August 2021
SNRRS bank move to BAU service at Golden Jubilee (team, systems and processes)	Yes – transition complete 29 <sup>th</sup> Nov 2021
Explore further opportunities for the SNRRS e.g. specialty networks, inclusion of retirees and reporting radiographers (RR) as part of the bank, RR training, out of hours service, etc.	Ongoing - started Dec 2021

