

INNOVATION - F1

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FOR INFORMATION ON THE
INNOVATION PROGRAMME
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THE INNOVATORS

As Head of Financial Development my role was to help identify work that could be submitted to the innovation forum. We believe our team may be unique as the function has traditionally sat in HR departments. Our change of direction freed up the team to think differently about how they approach their work which has delivered step changes in the way we provide and analyse data.

THE PROBLEM

The Financial & Workforce Systems team **needed to** make the reporting of multiple datasets more streamlined and interactive to enable budget holders and managers to self-serve and take timely management actions to maximise patient care. This would allow corporate staff to spend more time on value added tasks as opposed to low level transactional tasks. The challenge for an organisation with 11,800 staff, 560 budget holders and in excess of 40 sites is how a team of 3 could deliver a project of this magnitude.

THE CHALLENGE

How might we use new technology **so that** managers are empowered to investigate and take mitigating actions in respect to finance and non-financial information and that corporate support teams have more time freed up to support added value work such as investment appraisal and CIP?

THE INNOVATION

The headline is to utilise multiple technology solutions to deliver an enhanced management information for budget holders. The key was to provide this in a single system with no additional barriers to access the data. The ESR & Finance systems team are extracting data from the Finance System, ESR and Health Roster via Robotic Process Automation. Some data is daily and some monthly depending on data requirements and appropriateness. The backbone to the reporting solution is two finance reports which are exported daily:

- Finance authorised signatory database (ASD)- This contains the budget holders information including name and email address and what cost codes they are authorised to see.
- Cost code and Organisation structure - These reports are uploaded into a Microsoft Azure data warehouse where row level security is applied. A Power BI App linked to the data warehouse utilises row level security to recognise the budget holders email address. When budget holders login via their normal Trust login which is linked to the Microsoft Office 365 environment it allows them seamless

access the Power BI report. This report recognises the user via their email address and subsequently passes the data held in the database relevant for only the codes they are authorised to see. Once the backbone was developed it became possible to link data to this and publish this data via Power BI, safe in the knowledge that only the relevant data will be passed to the end user and the user needed no additional log in information. Additionally by utilising Power BI with the Azure data warehouse it has enhanced the way reports can be produced.

- Daily vacancy reporting – taking data from ESR daily allows current staff lists to be published against the finance budget. It provides real time information and has stopped overpayments as managers realise errors on the staff lists, rather than waiting for the information after the month-end.
- Finance dashboard (October go live functionality improvements during November and ongoing) –
 - Provides the standard budget statement view with drill down to the transactions like most standard finance systems, but using Power BI provides additional analysis:
 - Interactive visuals on spend trends where managers can filter themselves.
 - Pay broken down into the sub elements using the ESR element code, it's possible to identify overtime, enhancements.
 - ESR Data- Daily training and appraisal info November updates.
 - Non pay- supplier analysis, NHS Supply chain product analysis, top 5 non pay items, purchase order compliance etc.
 - Trend analysis including prior year. Next quarter updates.
 - Debtors – information on unpaid invoices so managers are aware of unsettled debts in their areas.
 - Forward look roster for sickness annual leave & gaps, etc.
 - Daily Pay progression status of teams - The critical point is that anything with a cost code can now be surfaced via this app directly to budget holders so the scope can be expanded.

THE LESSONS LEARNT

- Try to fit it in around core business as usual as it delayed the roll out.
- The team needed to upskill in Microsoft Azure (SQL), Power BI (DAX), RPA, and clear authorising hierarchy to identify appropriate access for users. They were largely self taught with some ICT colleague support. Staff need to have a particular skill set to be successful at using these tools and are not necessarily a professional accountant. What has worked is combining a finance professional Department Head with an IT interest with BI specialists that understand finance.

THE OUTPUTS

- Integrated financial dash board.
- Drill down to source transactions.
- Row level security.
- Automated data export and import.
- Single sign on via Microsoft – accessed via Trust login so no additional passwords.

THE OUTCOMES

Improved ability to spot payroll errors Using robotics reduces the risk or error and saves staff time.
Empowerment of budget holders and managers to take greater responsibility for finance and non-finance.
Increased time for finance to contribute to added value tasks.

THE QUICK WINS

- Break it down and chunk it, this has been built on the back of a long term project.
- Try the automated solutions on some simpler tasks first to build confidence.
- Create some centralised templates so the essential format is identical for all services which aids consistency and consolidation.
- Consider developing the solution in the background, several benefits, no time pressure and no expectations and provides time to learn.
- The actual solution can then be demonstrated and from experience this approach immediately wins over sceptics or those adverse to change.



THE REVIEWERS SAID

THE DEVELOPMENT OF AN ANALYTICS TOOL WITH ROW LEVEL SECURITY WILL DEFINITELY HELP CONCENTRATE ON THE KEY ISSUES BEING SURFACED BY THE TOOL RATHER THAN A FOCUS ON DATA PROCESSING.

ONCE BUILT I THINK MORE INNOVATION WILL COME LINKING UP WITH OTHER NHS TRUSTS AND ORGANISATIONS TO SHARE BEST PRACTICE. A VERY IMPRESSIVE SUBMISSION.

I THINK IT IS AN EXCELLENT WAY OF ADDING NEW TECHNOLOGY TO GET THE MOST OUT OF THE DATA WITHIN MORE RESTRICTIVE ESR AND FINANCE SYSTEMS AND TO BE ABLE TO ADD VALUE TO FINANCE AND BUDGET MANAGERS. IT IS GREAT TO SEE RPA IN ACTIVE USE WITHIN FINANCE

“UPSKILLING YOUR OWN STAFF MAKES THIS A REALLY COST EFFECTIVE AND ‘TEACH THEM TO FISH’ ENDEAVOUR THAT SHOULD BE APPLAUDED IN ITSELF.” “THIS IS MOST DEFINITELY THE WAY IN WHICH ORGANISATIONS SHOULD BE AIMING TO GO TO ALLOW THE MULTIPLE DATA SOURCES WE USE TO BE USED IN COLLABORATION WITH EACH OTHER RATHER THAN IN SILOS.”

WHAT YOU CAN DO NOW

If you recognise the problem stated and have implemented your own innovation to overcome it please submit this innovation to the programme and give others more examples to learn from.

SUBMIT INNOVATION

If you recognise the problem stated and would like to know more details about this innovation in particular, we will be hosting showcase and workshop sessions throughout the year, so all interested staff can gain ideas and inspiration from innovators in a manageable one-to-many format.

REGISTER INTEREST

If you have a problem but don't currently know of a solution to it, then please submit it here and in 2022 the Forum intends to crowdsource solutions to problems that don't currently have known innovations.

SUBMIT PROBLEM

If you would like to learn more about about the innovation programme please click below for more details

LEARN MORE

IN SEPTEMBER 2021 THE FORUM LAUNCHED...

- A national Innovation Programme for NHS Finance staff to submit their innovations for peer review. Successful innovations will be published and accessible to all on the One NHS Finance website
- A 'Software Skills For Finance Staff' event series taught by NHS Finance for NHS Finance including MS Excel, PowerBI, SQL etc.
- An 'Art of the Possible' briefing which explains two new technologies AI & Blockchain and discusses the opportunity for NHS Finance
- An Automation Group to review and improve the efficiency of existing national processes and returns

WHAT YOU CAN DO NOW

- Submit your innovations for peer review
- Sign up to be an innovation peer reviewer
- Read Art of the Possible
- Sign up for Software Skills for Finance
- Register your interest in automation and all things innovative

Innovation Programme



Software Skills



Automation sign up



Be a peer reviewer



Art of the Possible



FURTHER INFORMATION

Website: [FinanceInnovation.nhs.uk](https://financeinnovation.nhs.uk)

Email: finance.innovation@nhs.net

LinkedIn: [One NHS Finance](#)

Twitter: [@OneNHSFinance](#)



One NHS Finance brings together the Future-Focused Finance, National Finance Academy, and the Finance Innovation Forum programmes and networks to make sure that everyone working in NHS Finance has access to skills, knowledge, methods, and opportunities to influence and enhance patient services.



Identifying and developing innovative ways of working and new areas of improvement.