Delivery, Performance and Development Report for Research Systems



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# Executive Summary

This report provides an update on activities since the establishment of the Research Systems (RS) team in January 2015, under the newly appointed Deputy Director. Following the purchase of the source code for the Integrated Research Application System (IRAS) and the development of the HRA Assessment and Review Portal (HARP), the HRA has significantly reduced its reliance on an external software supplier, and strengthened its internal team. This has ensured that the RS function has continued to deliver a quality product on a frequent basis, with minimal disruption and a remarkably low level of issues.

RS have also taken measures to secure their gains to date and to ensure continuous process improvement, through the establishment of an independent systems quality function.

In terms of planning for 2016-2017 and beyond the consideration will be in line with the overall approach to focus on business plan objectives for 2016-2017, and aligning some of the more strategic long term thinking for the RS function with that for the organisation as a whole as it looks to review strategic objectives for 2016 and beyond.

This report illustrates the critical service that RS provides and gives assurance regarding future delivery, performance and development which will allow the HRA to continue to meet its responsibilities and continue to enhance its reputation.

# Delivery Performance

## Introduction

The team has been expanded, currently through the use of contractors, which has strengthened the capability within the team around the development and maintenance of key system requirements, in turn meaning a decreased reliance on the supplier during this period. This saw the introduction of a quality function within the team which has freed up existing resource to focus more on delivery through dedicated resource to handle systems quality assurance and control.

This section sets out the performance of the key Research Systems and describes the successful delivery of developments to those systems.

## Application Utilisation

HARP and IRAS are the applications that form the foundation of the HRA systems. IRAS was implemented in January 2008 and HARP replaced its predecessor, RED[[1]](#footnote-1), in May 2014.

The figures below indicate the utilisation of the two systems.

### IRAS Utilisation Metrics

|  |  |
| --- | --- |
| **Metric** |  **Number** |
| All Users | 172,250 |
| New users - May 2015 | 1,149 |
| New users - June 2015 | 615 |
| Total Number of Projects created since IRAS went live in 2008[[2]](#footnote-2) | 121,807 |
| Number of Projects created in May 2015 | 1,192 |
| Number of Projects created in June 2015 | 685 |

### HARP Utilisation Metrics

|  |
| --- |
| **Metric Number** |
| Number of HARP accounts | 285 |
| Total number of applications added since RED went live in 2004 | 122,164 |
| Number of applications added since HARP went live on 19/05/2014 | 8,393 |
| Number of Applications in June 2015 | 551 |

## Releases

### Introduction

With the exception of IRAS v4.0 and IRAS v4.1, RS have met their release dates throughout 2015. IRAS v4.0 was delayed by a little over two weeks to allow the incorporation of late changes to the Sponsor Declaration on the REC Form[[3]](#footnote-3). IRAS v4.1 (NOMS[[4]](#footnote-4) form changes) was postponed from early June to September 2015 due to a variety of reasons[[5]](#footnote-5).

No roll-backs have been required and the systems have always been reliably brought up again, for use by the business, by or before the advised time.

### IRAS

The team has maintained close to a monthly release frequency, having delivered five main implementations since the establishment of the Research Systems function in January 2015. The deliveries to-date are summarised below:

**IRAS Version 3.5.4** (Released: 12/01/15): A maintenance release that also provided change tracking in IRAS forms.
*Principal Benefits: Increased system stability and has allowed development staff to track down and analyse reasons for e-authorisation failures.*

**IRAS Version 3.5.5** (Released: 23/02/15): Revision to Terms & Conditions, update to amendment tab guidance text.
*Principal Benefits:* *Clarified and standardised amendment guidance.*

**IRAS Version 4.0** (Released: 01/04/15): Improvements to user interface, changes to sponsor declaration.
*Principal Benefits:* *Changes to user interface gave users more functionality in managing IRAS projects.*

**IRAS Version 4.1** (Released: 22/05/15): Changes to declarations
*Principal Benefits: Policy requirement*

**IRAS Version 5.0** (Released: 10/08/2015) Cohort 2 functionality; new combined form for projects applying for HRA Approval and a revision to A68-2 question for projects applying for HRA Approval.

### HARP

The HARP team have maintained a monthly release frequency, having delivered six main implementations since January 2015. The deliveries are summarised below:

**HARP version 3.1.1** (Released: 14/01/2015): A maintenance release.
*Principal Benefits: Increased system stability.*

**HARP Version 1.3.2** (Released: 18/03/2015): A maintenance release.
*Principal Benefits: Increased system stability.*

**HARP Version 2.0** (Released: 04/05/2015): HARP changes to support HRA approval for Cohort 1. In parallel HAP Portal v1.0 was released.

*Principal Benefits: Allowed HRA Approval team to access HRA Approval studies without having to access HARP directly.*

**HARP Version 2.0.1**(Released: 11/06/2015): A maintenance release.
*Principal Benefits: Increased system stability.*

**HARP Version 2.0.2** (Released: 02/07/2015): Annual Report fixes.
*Principal Benefits: Increased data accuracy.*

**HARP Version 2.1** (Released: 10/08/2015) Cohort 2 functionality; new combined form for projects applying for HRA Approval and a revision to A68-2 question for projects applying for HRA Approval.

## Finance

The Development, Maintenance, Support and Help Desk services are provided by BGO Media, out of Bulgaria, on a fixed cost basis. The contract consists of a number of days per month per resource type and invoices are produced on this basis.

The monthly predicted spend is £88,245 and invoices show the cost breakdown in relation to the contract and any planned holiday time (which would result in an amount less than planned). Overspends are not permitted however underspends are closely monitored and used to add extra functionality where needed. Monthly budget monitoring meetings are held with the Finance Lead to check for cost pressures and reduce any risks thereof.

The following table shows the predicted and actual spends for the first seven months of this year in order to demonstrate close coupling between delivery and budget:

|  |  |  |
| --- | --- | --- |
| **Month (2015)** | **Planned Spend** | **Actual Spend** |
| January | £65,035  | £57,985 |
| February | £65,035 | £63,135 |
| March | £65,035 | £68,385 |
| April | £88,245 | £79,815 |
| May | £88,245  | £77,545 |
| June | £88,245  | £97,280 |
| July | £88,245  | £98,500 |
| TOTAL | £548,085 | £542,645 |

Maintenance / improvement work undertaken as a result of the above under-spends to June includes:

|  |  |  |
| --- | --- | --- |
| **Improvement** | **Additional Spend To-Date** | **Status** |
| **IRAS Maintenance Centre** (Form template and questions manager). | £1,800 | In progress |
| **IRAS Utilities Improvement** | £5,400 | Complete |
| **Improvements to software development management systems** (e.g. JIRA – to support enhanced SDLC, SOPs, etc.) | £4,500 | On-going |
| **OS level changes to websites** (simplifies deployment and management) | £900 | Complete |
| **Automated GFI Log Archiving** (improved GFI performance) | £1,350 | Complete |
| **Automated build and deployment** (increased reliability and efficiency) | £2,700 | In progress |
| **SAN Migration** (increased space, reliability and performance) | £900 | In progress |
| **RackSpace Environment Architecture** (Virtualisation of environments) | £2,250 | In progress |
| **Password Encryption (phase I)** (Response to security audit) | £4,500 | Complete |
| **Data Archiving**  | £1,350 | In progress |
| **Migration to Visual Studio 2012 and .Net 4.5** | £1,350 | In progress |

## Help Desk[[6]](#footnote-6)

Help Desk tickets[[7]](#footnote-7) are categorised as follows:

**Guidance:** The user needed education or guidance relating to the system and/or system processes (e.g. “How to” questions).

**Access:** Problems accessing the application; normally password and/or URL related (e.g. wrong username/password or incorrectly typed web address).

**Local Issue:** Issues, usually related to local computer/browser/internet or/and operational system settings of the user (e.g. pop-up blocker blocks the download of the file)

**System Misbehaviour:** Improper behaviour of the data or application (e.g. user authorised the project in the desired way but the system invalidates the authorisation given)

**IT Issue:** A problem relating to the platform or application (e.g. the website is down).

### IRAS Tickets

During the period under review the average number of Help Desk tickets raised per day was 39 or around 1.4% of users. (Based on a 5-day week).

During this period the distribution of IRAS tickets across the categories were as follows:

|  |  |  |
| --- | --- | --- |
| **Period: 27/10/14 – 22/5/15** | **Total** | **Average number of tickets per day** |
| **Guidance** | 7264 | 36 |
| **Access**  | 362 | 1.81 |
| **Local issue** | 20 | 0.1 |
| **System misbehaviour** | 198 | 1 |
| **IT issue** | 12 | 0.06 |

As can be seen, the vast majority of the tickets were seeking guidance whilst the number directly within the control of the RS team was minimal.

Of the five releases during the period under review, the Help Desk call volumes were maintained at or below average for two (releases 3.5.5 and 4.1). The other two releases did see noticeable increase in calls; almost entirely ‘guidance’ calls. It is unclear as to why this would be the case for 3.5.4 (though the call rates were back to normal by the end of the month in which the release occurred), but it is understandable with 4.0 as this release made significant changes to the user interface.

### HARP Tickets

During the period under review the average number of Help Desk tickets raised per day was just over 7 (or 1 per 42 user and portal members).

During this period the distribution of HARP tickets across the categories were as follows:

|  |  |  |
| --- | --- | --- |
| **HARP** | **Total** | **Average number of tickets per day** |
| Guidance | 703 | 2.5 |
| Access  | 144 | 0.51 |
| Local issue | 15 | 0.05 |
| Data cleansing | 581 | 2.06 |
| System misbehaviour | 519 | 1.84 |
| IT issue | 15 | 0.05 |
|  |  |  |

As can be seen, the vast majority of the tickets were seeking guidance and the numbers directly within the control of the RS team were low.

Though not reflected in the figures above, there was a marked reduction in the level of tickets after the third HARP release (v1.0.3) – reflecting increasing user familiarity with HARP.

In April of this year there was a spike in tickets relating to guidance following the release of version 2.0 which introduced the HAP Portal – so once again a reflection of the lack of user familiarity.

### Improvement Initiatives

The prevalence of guidance related issues has led to a concerted effort to improve the level of passive guidance made available through user manuals and has led directly to the appointment of a Technical Documentation Specialist.

The fact that most Help Desk tickets are guidance based, and that there is a clear correlation between the number of tickets and the introduction of new features or changes to the user interface, allows the Help Desk to predict call volumes and prepare accordingly.

# Quality Initiatives

During the first quarter of 2015, quality formed just one aspect of the Delivery Team’s remit. The Systems Delivery Manager (SDM) drove the creation of the procedures, managed adherence to them and audited compliance. Whilst this was carried out by the SDM for reasons of pragmatism around resources, the arrangement did not offer the independence that is fundamental to quality governance.

Likewise, the testing function (performed by a Test Manager) reported into the SDM, due to the Quality Manager role not being filled at the time.

One of the early improvement initiatives undertaken by the new Deputy Director for Research Systems was to establish a Quality function to complement the Development function. The Quality function takes responsibility for quality, testing and technical documentation, and consist of a Quality Manager, a Technical Documentation Specialist and, initially, the Test Manager.

The Quality Manager was a new role requiring recruitment. They are responsible for the team and have a personal focus on ensuring appropriate standardisation and governance is applied to the work undertaken, by RS and their partners, on behalf of the HRA. They ensure that the RS deliverables are produced in a consistent manner and to an appropriate level of quality.

The Technical Documentation Specialist was also a new role requiring recruitment. The post holder provides standard templates and produces documentation - from user manuals to technical documents. Their efforts ensure that documentation is available, produced efficiently and to consistent standards.

The existing Test Manager transferred to the new function. Their role is largely unchanged in that they are responsible for organising, preparing and executing testing of RS software deliverables. The change in reporting line provided an enhanced level of independence. There is also a greater focus on the planning of testing. They continue to validate and verify the software deliverables but potential conflict of interest between quality and delivery is removed.

## Quality

### Introduction

In establishing the RS Team it was recognised that there was a need to establish quality systems in accordance with ITIL and general good practice. ITIL is an industry standard by which information systems and services should be run, providing a framework on which to base delivery. Without a systems quality function human resources best focused on delivery would be distracted by, potentially conflicting, quality issues. The recognition of this need was reinforced by the outcomes of early audits that indicated need for the HRA to have more robust oversight of the performance and activity of the supplier.

The new team came into being on 13 April 2015. During this time the following initiatives and activities have been/are being undertaken:

### Procedure (& similar) Production

**Test Policy:** Describes RS’s principles, approach and major objectives relating to software testing.

**Test Strategy:** Outlines the testing activities and workflow to be followed prior to the release of code onto the live environment.

**Test Management Process Flow:** Provides a diagrammatic workflow for the cross-discipline activities related to testing.

**Route to Live:** Describes the environments, and their use, that exist on the ‘route to live’ for any software development.

**Document Production and Approval Procedure:** Details the production, review, approval, distribution and storage processes associated with defined document types.

**Test Glossary:** A standard glossary of testing terminology.

**Defect Management Procedure:** Describes the process for raising defects and managing them, through their lifecycle, to closure.

**Test Styles Procedure:** Describes formal and informal testing styles and the manner in which they should be prepared, conducted and recorded.

*Principal Benefits: As well as supporting the HRA’s drive towards ISO9001certification, these documents provide direct benefits to the RS team through the establishment of standardised and documented ways of working. This facilitates consistency, quality and continuous improvement.*

#### Additional Procedures

Prior to the establishment of the Quality function, the following procedures had been created by the SDM:

**Software Change Request Procedure.** Outlines the steps required to specify and gain approval for changes linked to HRA national IT systems

**Software Development Management SOP:** Describes the processes applied to the management of the software development process.

**Release management SOP**: Describes the processes applied to the management and approval of releases into the live environment.

### Audits Conducted and Related Work

**Audit Tracker:** An audit tracker spreadsheet has been created. This is a tool to facilitate the recording and progressing of all actions arising from both internal and external audits. The Audit Tracker was used to track action progress on the following audits:

* Procedure Gap Analysis (HRA QA)
* Software Change Request Procedure (HRA QA Audit)
* Software Change Form (HRA QA Audit)

And is currently tracking actions related to:

* IT Security (DH Audit)
* Development Arrangements (DH Audit)
* SCR Procedure and Form (RS Quarterly Audit)

**IT Security Audit (DH):** This audit was conducted before the creation of the Quality Team. The team has now assumed responsibility for working with BGO Media to ensure a number of actions (primarily related to operating system and database security) are progressed to closure. Additionally, the team will oversee general progress.

**Development Arrangements (DH):** This audit has recently been completed and the report is going through review. The team will have input into the response and the subsequent action progression.

**Software Change Request (HRA QA):** This is a follow-on audit based on a gap analysis undertaken by HRA QA at the start of the year. The Quality Team presented evidence for the audit at the end of July.

**Software Change Request (RS Quarterly):** The Quality Team reviews the application of the Software Change Request process on a quarterly basis.

**Release Management (HRA QA):** This is a follow-on audit based on a gap analysis undertaken by HRA QA at the start of the year. The Quality presented evidence for the audit at the end of July.

**Release Management (RS Quarterly):** The Quality Team reviews the application of the Release Management process on a quarterly basis.

*Principal Benefits: The establishment of the Quality function has allowed RS to fully embrace their own governance of processes as well as supporting the audits conducted by others. This will serve to accelerate and facilitate process improvements which benefit both RS and our users – and which will support our drive towards ISO9001.There is already a demonstrable improvement in the way outcomes from audits are actioned within the team.*

### Metrics and KPIs Considered

A number of system utilisation metrics are collected and analysed as seen in sections 1.2 Application Utilisation and1.5 Help Desk.

A discussion paper has been produced which identifies a range of metrics and Key Performance Indicators (KPIs) RS may wish to consider utilising in support of quality initiatives; primarily around Testing in the first instance.

It is highly likely that the standard Test Summary Report (to be defined) will identify a number of metrics prior to the full-set being determined. Provisionally these are likely to include:

* Requirements Coverage achieved
* Number of tests prepared and executed
* Number of defects found by severity
* Defects resolved/unresolved

*Principal Benefits: Metrics and KPIs allow us to target effort, be it for anticipated demand on the Help Desk or to improve processes for maximum benefit. They also allow a ready appreciation and comparison of quality between releases and other activities. We intend to make better use of metrics and KPIs but will also do so in a way that is sensitive to the effort required and other priorities – such as delivery. The new team structure will assist in this by providing a quality function distinct from the delivery one.*

## Technical Documentation Produced

### Templates

The RS Quality function are working closely with the HRA QA Team to define a range of MS Word templates to be used as the basis of future HRA templates. This is part of our contribution to the organisation-wide adoption of ISO9001.

Templates produced specifically for RS include:

**Base Template:** A generic master template that will form the basis of specific templates.

**Test Plan:** Provides the framework (with guidance) for Test Plans.

**Defect Log:** A form that facilitates the capture and communication of defects (primarily used during User Acceptance Testing as RS personnel will enter directly into JIRA).

**Defect Register:** A table details relating to all defects found (now implemented in JIRA).

**Test Procedure Specification (Script):** A template for capturing the important elements of a manual test.

**Exploratory Testing Record Sheet:** A document to capture the activities undertaken (and results observed) during exploratory testing.

**Exploratory Testing Scenario Sheet:** A sheet to support (and encourage) some basic pre-test deliberation.

*Principal Benefits: These templates support the procedures as part of the drive for consistency, quality and efficiency. They ensure that pertinent information is captured and presented in relation to the functions they support.*

### User/Technical Manuals

The following manuals have been produced:

**HARP HRA Approval Manual:** A HARP user manual written specifically by HRA staff. Focussed on the actions that HRA staff will be undertaking on HARP, this document is designed to be used alongside the HRA SOPs.

**HARP Members Portal Manual:** The manual to assist users of the HARP Members Portal.

**HARP User Manual:** The full HARP user manual. This existing manual has been updated to the new HRA template and images have also been updated.

**HARP HRA Approval User Guide:** The equivalent of the HARP User manual tailored specifically to HRA Approval users.

**HARP HRA Portal User Guides:** Two separate guides have been written to support two identified user groups on the HRA Portal:

* HRA Approval Technical Reviewer
* HRA Approval Viewer

The guides describe the actions these user types can undertake on the HRA Approval Portal.

*Principal Benefits: The production of the manuals, supported by the templates upon which they are based, ensures that users have ready access to guidance on the HRA systems and that it is presented in a clear and consistent manner. This has the additional benefit of reducing users’ reliance on the Help Desk.*

### System Documentation

We are commencing a piece of work with BGO Media to improve the documentation of our systems at a technical level. This will be useful in ensuring continuity should there be a need to recover from an incident or where commercial arrangements may change.

Items progressed so far include:

**Database Data Dictionary:** Based on table meta-data from our application databases, this will contain the following:

* A list of all the tables through which a user can access the column information for each table.
* A page on which changes to the database tables are listed by release.
* An entity relationship diagram.

**Service Map:** Will describe the components (hardware, software, and configuration) of the services used to deliver and support IRAS and HARP.

*Principal Benefits: Provides ready access to information which describes technical aspects of our systems and infrastructure. This will help avoid technical issues and expedite their resolution when they do occur. Additionally it facilitates such activities as business continuity planning and provides the ability to transfer our systems infrastructure or support, maintenance and development to other vendors should it prove appropriate to do so.*

## Testing Conducted and Extended

### Planned Releases

Testing has been prepared and executed for the following releases:

* IRAS 4.0
* IRAS 4.1
* IRAS 5.1
* HARP 1.3.1
* HARP 1.3.2
* HARP 2.0
* HARP 2.0.1
* HARP 2.0.2
* HRA Approvals (Cohort 2)

HRA Approvals has seen the testing activity extended to more formally plan and manage testing activities.

*Principal Benefits: Testing has consistently allowed us to identify and eliminate defects prior to release and the benefit can be seen in the remarkably low number of IT Issues raised through the Help Desk. The additional focus on test planning and management will allow us to ensure and demonstrate that we are focusing our test effort to best effect.*

### Defect Review (Triage) Panels

Defect Review Panels, chaired by the Test Lead, are now run during the post-development test execution phases of a release. These are regular meetings (normally daily) where stakeholders review the defect raised/fixed, agree their priority & severity, and determine the action required.

*Principal Benefits: Regular panels during the testing phase of a release permits all relevant stakeholders to assess the defects that are being detected, to ensure that they are assigned the correct severity and priority and to ensure that the most appropriate action is taken.*

### Non-Functional Testing

#### Performance, Security & Accessibility

Like many organisation, the traditional focus of RS testing (and requirements gathering) has been functionality. Non-functional requirements, and the testing thereof, can be just as important and are now being considered. RS are initially focusing on three types of non-functional requirement:

* Performance
* Security
* Accessibility

*Principal Benefit: This allows us to make a conscious decision as to the importance we assign to these aspects and then allows us to approach them in an appropriate and informed manner.*

### Adoption of ISO9001

The HRA Quality Assurance department has been ISO9001 certified since 2009. In 2014/15 the intention is that certification will be extended to all functions. Below are the initiatives the RS function introduced to facilitate this within work practices and products:

* Implementation of templates to support standardised documentation
* Production of procedures to ensure the standard execution and governance of RS processes
* Division of delivery and quality functions to provide better independence
* Enhanced focus on internal and external action management and resolution
* Programme of quarterly RS self-audits
* Engagement with HRA Hub initiative to improve access to standard documentation and improvement in collaboration
* System documentation to support future commercial options

*Principal Benefits: ISO 9001 supports a disciplined work environment; ensuring employees know exactly who does what, when and how thus improving efficiency and helping to improve the service the HRA provides.*

## Additional Activities

### Restructuring Testing

The departure of the incumbent Test Manager in early June provided the opportunity to review and revise the structure of the testing function. It was not felt that the extent of the testing and the size of the team, especially now that it reported into a Quality Manager, justified the role of Test Manager in the structure. As such that role was replaced with Test Lead. However, it was recognised that testing activity was diverting too much of the System and Application Delivery Managers’ time and effort and so, to reduce the reliance on these personnel, a new role of Test Analyst has been created.

*Principal Benefits: The structure of the team now reflects the needs and ambitions of RS going forward.*

### Recruitment

The period under review has seen the following roles created and recruited:

* Quality Manager
* Technical Documentation Specialist
* Test Lead
* Test Analyst

*Principal Benefits: This recruitment has enabled the creation of the Quality team within RS and, as such, has enabled the various quality initiatives described in this document.*

### Document Consolidation

The Quality Team have been exploring options for consolidating the team’s documentation; ideally in a single repository. Early options have now been superseded by the planned adoption of HRA Hub for this purpose.

*Principal Benefits: This will ensure not only ready access to such documents it will also avoid the inadvertent creation and storage of multiple versions of the same document.*

## Benefits Summary

The establishment of a Quality function has brought a wide range of benefits to RS, and the wider HRA. These include:

* Clearly defined procedures
* Enhanced auditability of the team’s processes
* Improved audit support (internal and external)
* Metrics and KPI which support MI reporting and process improvement
* Standardised internal documentation
* Centralised document repository
* Timely user documentation with a consistent look and feel
* Detailed test planning
* Appropriate level of test independence
* Inclusion of non-functional requirements and testing
* Support of, and work towards, adoption of ISO9001
* Appropriately structured test function.

The function will continue to add value for all of our stakeholders through improved consistency, efficiency and quality.

## Why the Quality Function is Essential

At present the software quality function, established in April 2015, is entirely staffed by day-rate contractors. This form of resourcing is best used to deliver interim arrangements and has the disadvantage of being relatively expensive as a means of providing indefinite resourcing.

As has been described in this document, the Quality function has already delivered real benefit and has significant scope to continue to do so in the future. For this reason we are exploring the options to establish permanent substantive roles in the Quality function and thus secure the long-term contribution of this group.

Should circumstances require that the team be disbanded, and RS revert to its earlier form, the implications will include the following:

* Progress towards ISO9001 will be impacted. Proceduralisation of current processes and practices will divert resource from delivery and, as a result, will be treated as lower priority. This will jeopardise consistency, quality and continuous improvement.
* Our ability to perform our own audits and support/respond to internal and external audits will be impacted and possibly compromised. This will compound the effects of diminished ability to create/maintain procedures.
* Using metrics and KPIs to provide visibility, support process improvement and to drive performance will prove more difficult. Not only will their collection and analysis divert effort or be abandoned, the capacity to improve based on the results of any analysis will also be reduced.
* Production and maintenance of templates may need to be abandoned since the less efficient processes may require reactive responses to demands – including demands for documentation.
* As focus and priority is given to delivery, the ability and incentive to apply resource to creating and maintaining user documents and technical documents will diminish.
* Testing will again become a function of the Development team thus reducing independence and potentially creating tensions between planning/preparation and execution. There may well need to be a need to rely on development teams to progress defects without the active participation of other stakeholders.

# Research Systems Development Strategy

As stated, the Deputy Director joined Research Systems in January 2015. At that time, work was already in progress with the team for delivery of HRA Approval Cohort 1. The team consisted of three staff covering all delivery and quality activities for the function, with an already identified need for further resourcing. Immediate priorities for the Deputy Director were to recruit additional staff on a contract basis, to add extra capacity for the quality activities around testing and management thereof in addition to a role responsible for technical documentation to support further HRA Cohorts. Information given at the beginning of this paper shows the benefit of increasing capacity within the team and how much has been delivered in terms of system functionality and quality. Contracts with the software partner (BGO Media) and the infrastructure provider (Rackspace) were in need of renewal, with short lead times, which have also been extended during March and July respectively.

In addition to the above activities, the Deputy Director has recognised the on-going demand for robust research systems to support the HRA, hence in liaison with EMT and the team, is developing a strategy that is comprised of three key work streams underpinning a significant, long-term programme of work, which are as follows:

* **Work Stream 1:** a procurement project to secure a long-term technical partner for delivery of software services for the Research Systems team
* **Work Stream 2:** A large number of development projects in response to the HRA’s 2015/6 business plan and beyond
* **Work Stream 3:** Staffing, to move away from current reliance on contractors to a permanent complement of Research Systems staff

Delivery of the strategy as described will ensure the vision below is realised.

## Research Systems Vision

The Research Systems’ vision is to continue to deliver robust systems that are fit-for-purpose and enable the HRA to deliver its remit, further facilitating increased collaboration with partner organisations through enhanced functionality that will support key regulatory requirements including transparency, guidance and streamlined and simplified application and review processes.

In addition to the existing staff delivering the systems, new posts are proposed for programme scoping and prioritisation, quality and ITIL service management which will build on the strong foundations already established, ensuring that the systems are modern and continuously improving. There will be a cycle of engagement synchronised with production of the HRA’s business plans to ensure that the long term IS programme is strongly coupled with the HRA’s vision.

A strong, effective technical partnership with a software supplier will be procured to work alongside the team to deliver the IS strategy and the underlying technical infrastructure will be managed seamlessly as part of this approach.

## Work Stream 1: Procurement Plans

The current contract with BGO Media as supplier is due to complete on 31 March 2016. Department of Health have advised that a full tender and procurement process must be run to demonstrate value for money. This process is underway with the intention of establishing a contract for 3 years with appropriate clauses to manage performance delivery, and the option of 2 years’ extension. In liaison with DH Procurement, a Prior Information Notice was issued on the European Union tender site and potential suppliers are invited to register interest in attending a supplier day on 7 September at Skipton House. Further milestones will follow, and progress will be reported to EMT, which will include development of the Invitation To Tender specification during October. The new contract will be awarded by March 2016.

## Work Stream 2: Development programme

A long-term work programme is being developed both in response to the HRA’s 2015/16 business plan and to set direction for future business plans. It includes outline projects that support the “Improving and Streamlining Systems and Processes to Support and Improve Confidence in Health Research” and “Strengthening Organisational Capability; Being Efficient and Effective” business planning themes. It includes a series of projects for building stronger foundations, which have been driven from within the Research Systems function, and projects to support the HRA’s business including enhanced system interfaces with other partners in the research community e.g. NIHR Clinical Research Network, changes required for the implementation of the EU clinical trials regulation, and improvements to IRAS to support our role in coordinating and streamlining the regulatory system.

## Work Stream 3: Staffing plans

Currently a number of the internal staff are contractors on time-limited contracts through the Department of Health’s Capita framework. As part of the HRA’s overall workforce strategy, consideration is being given to creating substantive posts to support the programme outlined above. Posts associated with development work would be primarily funded from capital budgets and would have some revenue implications, but would provide continuity and better value for money than short term contracts.

## Benefits Expected

1. Leading improvements that make it easier to conduct good quality research will contribute to the UK growing as an international centre for conducting health related research which is able to attract significant additional investment that contributes to economic growth;
2. Embracing new technologies so that researchers making applications can take full advantage of recent advances;
3. Maintaining a focus on efficiency and value for money by keeping within agreed revenue and capital cash and resource limits thus ensuring that budgets are effectively managed throughout the organisation;
4. IRAS continues to be provided 24-7 and meets the needs of researchers and the IRAS partners by making it easier for applicants with good quality applications to seek approvals, and the UK is prepared for implementation of the EU clinical trials regulation.
5. HARP is available 24-7 and meets operational requirements UK wide.
6. Removal of complexity and delay within the UK approvals pathway, facilitating more efficient setting up of research studies.
7. The HRA will continue to provide IRAS and HARP to very large numbers of users in the research community, facilitating, recording and documenting their applications for approval.
8. Continuation in stakeholder confidence in HRA as a regulator following implementation of HRA Approval.
9. Strengthening the HRA’s relationships with partners and collaborative working via systems that are fit-for-purpose.
10. Improved visibility of the HRA’s performance and transparency through expanded business intelligence.
11. Supporting the HRA’s intention to become ISO 9001 accredited through provision of robust, quality information systems.
12. Recognition of IS as a permanent fixture in building strong foundations for the HRA using IT industry best practice (ITIL).

## Risks associated with the Research Systems strategy

1. The procurement of a longer term relationship with a software partner, to demonstrate value for money, will require significant resource from across HRA and from DH procurement support.
2. If there is any slippage in the award of the contract then a Plan B needs to be formulated in the interim.
3. If the contract is awarded to a new supplier, there is a risk of significant resource impact on the RS Team and its budgets if establishing of new relationships with technical staff does not proceed in accordance with the tender requirements.
4. If the contract is awarded to a new supplier, there is a risk of impact on delivery if they do not get up to speed in accordance with the tender requirements.
5. Delivery of the above work programme is dependent on having the appropriate levels of staff resources.
1. Research Ethics Database [↑](#footnote-ref-1)
2. Many of the projects created by users are not submitted as they include ‘dummy’ projects or training projects [↑](#footnote-ref-2)
3. This was a planned change to the release date, agreed with the iIMB, and therefore the advance notification of the v4.0 release date, as published on the IRAS website, was met. [↑](#footnote-ref-3)
4. National Offender Management Service [↑](#footnote-ref-4)
5. Test resource limitations due to unexpected resignation of Test Manager, other development having priority on the test environments and late changes to the NOMS form. [↑](#footnote-ref-5)
6. The statistics in this section cover 27/10/14 to 22/5/15 and not purely the period of the Deputy Director’s tenure. [↑](#footnote-ref-6)
7. A Help Desk ticket is raised when a user of the system raises a query or issue via the Help Desk. [↑](#footnote-ref-7)