HR and Finance Digital Transformation Programme

Product Specification

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1. Project Summary

The HR and Finance transactional services of the Research Councils are currently outsourced to UK SBS, Currently they are currently using system which are in extended support which is due to end in May 2018.

Innovate UK's HR and Finance transactional services are run in-house and their payroll is outsourced to a third party.
The Research Councils and Innovate UK are due to merge to form a single group called UKRI (UK Research and Innovation)

The primary requirement and focus of this this specification is to replace these systems with a single platform that is scalable and relevant to an organisation of this size and complexity. Further to this the requirement is for the Supplier to supply the system integration services to support the roll out of the product into the organisation.

2. Glossary and Terminology.

BEIS - Department for Business, Energy and Industrial Strategy.
'Partner Organisation' - An arm's length body that falls under the strategic direction and control of BEIS.

‘The department’ - The collective term for all partner organisations in scope.
‘Supplier’ - the party named in the Contract for the provision of the Software and services included in this specification.
‘Software’ - This refers to the application described in this specification.
‘System Integration Services’ - Consultancy services related to the implementation of the software. The services in scope are those that are included in this specification.
‘Must have’ - Any description of requirements within the specification that contains ‘must have’ indicates this is mandatory.
‘Should have’ - Any description of requirements within the specification that contains ‘should have’ indicates this is ‘highly desirable’
‘Users’ - Employees or contractors of the department who will have access to the software.

3. **Business Scope**

The initial scope is for the delivery of the new digital services, focused on 9 partner organisations:

- Innovate UK
- UK SBS
- RCUK consisting of:
  1) Arts and Humanities Research Council - AHRC
  2) Biotechnology and Biological Sciences Research Council - BBSRC
  3) Engineering and Physical Sciences Research Council - EPSRC
  4) Economic and Social Research Council - ESRC
  5) Medical Research Council - MRC
  6) Natural Environment Research Council - NERC
  7) Science and Technology Facilities Council - STFC

This accounts for approximately 7,750 Users / licenses for which the requirement is both procurement of a system and system integration services to implement across this population.

There is potential, throughout the duration of the contract, for further expansion of the digital services to cover other partner organisations. Should this happen the total User base may increase by as much as 100%. However this extended scope would only be for software provision (licenses) and not the provision of system integration services.

4. Specification Scope.

This section provides details on the overall scope for the specification. It covers the key capabilities and business functional areas in scope as well as the scope for the delivery of the system integration services.
The main scope of the software is to cover the functions of Finance (including the finance aspects of issuing and monitoring Grants) & HR. The key areas within this are given below.

4.1. Finance: These are the key functional areas in scope for the finance aspects of the software.

- General Ledger
- Accounts Payable.
- Accounts Receivable.
- Project Accounting (including budgeting and forecasting)
- Procurement
- Employee Expenses.
- Cash Management.
- Fixed Assets

4.2. HR: These are the key functional areas in scope for the HR aspects of the software

- Core HR
- Time & Attendance and Absence Management
- Online Recruiting & On-boarding
- Performance Management
- Talent Management
- Learning and Development

4.3. The scope includes supporting MI / BI capability for the above areas of functionality.

4.4. Products / solution are to be delivered as a full cloud solution with the digital aspects highlighted below at its heart (section 5.1).

4.5. Scope will include the development and support of interfaces to other BEIS, Research councils and Innovate UK systems.

4.6. Delivery of system integrator / implementation services will be at all locations where the organisations listed have an existing presence.

4.7. System integration services will NOT include the overall programme management and strategy which will remain under the control of BEIS for the duration of the programme.

4.8. *Key* volumetric data: The following transactional volumes give an indicator of the size and scale of the organisation:

Area	**Approximate Totals (per annum)**
AP invoices processed	280,000
AP Payments made	325,000
GL Reconciliations	10,000
AR invoices raised	16,000
PO requisitions (<£10k)	112,000
Payslips Processed	150,000
Pay changes actioned	8,000
Contacts resolved (Core and Add services)	39,000
Starters	1200
Leavers	1600

5. Overview specification of Software and Service:

5.1. The software specification is developed and presented with the following key principles at its heart, derived from the current Central Government “Digital” agenda:

- ***User Needs / Usability:*** User needs must be at the heart of the offering, one of the driving principles will be the intuitive nature of the product.
- ***Cloud Solution:*** As stated in the scope the solution must have a full cloud offering / service at its heart.
- ***Interoperability:*** Use of open and common standards to avoid proprietary lock-in.
- ***Agile and Responsive***: The solution should be flexible and easily configurable by end-Users without technical training to meet current and future business demand

- ***Mobile:*** Functionality availability across mobile platforms and technology is an essential element of the product.
- ***Availability:*** The ability to cope and recover from interruptions must be built into the service to avoid detrimental effects on live operations
- ***Scalability:*** Services must be capable of adjusting to support changes to BEIS's group operating model and structure.
- ***Innovation:*** We will implement solutions that allows the department to use technologies in new ways, enabling a more effective and digitally transformed organisation.

5.2.

- ***Product Experience:*** Extensive relevant experience in implementing the product into a similar size organisation is essential.
- ***Methodology:*** Have experience of implementation approaches that are established, relevant, yet flexible so as to meet the demanding timescales.
- ***Resources:*** Access to a sufficient resource pool with the relevant product and implementation skills & knowledge to deliver.
- ***Training:*** Availability of suitably experienced training resources to provide support to the number of Users in scope for the implementation.
- ***Data Migration:*** Provide suggestions on approach, skilled resources and techniques to migrate from multiple large scale legacy systems (as those indicated in section 4.8 of the specification) on to the target solution.
- ***Integration:*** Technical capability to design, build and implement integrations to existing BEIS systems with the selected product.

6. Software Specification.

6.1. Outcomes and Expectations.

This section sets out the deliverables and requirements of the software/ system aspects of this specification. The minimum expectation that can be applied to all elements within this section is that the requirements listed are to be delivered using standard out of the box functionality of the software. That is to say that the requirements can be met using functional configuration of the product without the need to customise base code of the product or the development of a specific bespoke add on.

All the elements within the specification shall be met with the licensing provisions provided in the total fixed price, contained in the Price Schedule AW5.2. That is to say no additional licenses, modules or products need to be purchased to fulfil the requirements of the specification.

Throughout this section the supplier can assume that a specification element that is preceded with ‘must’ signifies a mandatory requirement. Where an element is preceded with ‘should’ it signifies a highly desirable requirement.

6.2. User Design & Digital Principles

This section is focused on the digital and design principles of the software. Within the section the supplier should demonstrate the usability and intuitive aspects of the software as a whole. How this fits in and supports the ‘digital’ concept and how easy the product is for the end User to understand and use in their everyday working life.

6.2.1. Intuitive Usability

The User experience must be very intuitive – “pick-up and play”. This would include a UI where by options, menus and functions are uncomplicated and obvious to the end User allowing use with minimal or no training. In particular the ‘self-service’ and/ or mobile aspects of the product that will be used widely by staff outside the HR and Finance functions must be simplistic, with a familiar in look and feel that is in line with current commercial websites and mobile apps.

6.2.2. Ease of Access

The software must support the concept of ‘pick up and play’ by being available across multiple platforms (browsers and mobile apps) and multiple devices (desktop/laptop/tablet/smart-phone, etc.), with single sign-on for office-based Users and secure but simple access for mobile Users. The mobile element must, as a minimum cover “Self Service” functionality (for expenses, purchase requisitions, time and attendance management, personal HR record management & access to User definable MI / BI reports and data). Mobile platforms supported must include I-phone, Android and Windows, browser support must include IE and Chrome.

6.2.3. Agile and Responsive

The software must be agile in nature in terms of its ability to handle the growing or changing operational demands of the department with the minimum of effort and skills. Specifically these demands can involve significant organisational restructures. The making of these changes must be possible within the system without the need for significant input from technically skilled staff or interruptions/delays to ongoing business processes.

6.2.4. Ease of Configuration

End User configuration and functionality maintenance must be simplistic and intuitive so as not to require a team of specialist functional support teams or external resources to flex the software with the changing needs of the business. It is expected that the original configuration will require significant expert involvement but knowledge transfer will be simple, straightforward and in line with the ease-or-use requirement.

To support a rapid implementation the software should include an extensive toolset of pre-configured standard processes or configurations that could be utilised very quickly.

6.2.5. Cloud Solution

The solution must be wholly Cloud-based so as to remove any dependency on internal IT hosting, resources or platforms other than User device connection to the provided service boundary, interfaces from/to other BEIS systems and Reporting/MI/Analytics access. This must also enable greater certainty of system performance and availability (up time).

The software must also include basic interaction with MS office products for the extraction of reports and data.

(Cloud requirements are more specifically addressed in section 6.7).

6.3. Functionality - Finance

This section is focused on the core functionality of the finance part of the software. It is typically the areas of the software more ‘regular’ Users of the system will access. (e.g: Accountants, AP clerks, Project accountants, finance managers, procurement managers) however it does also cover areas with broader usage such as purchase requisitions / orders and expenses.

6.3.1. Accounts Payable

The software must be able to support all the key aspects of a standard invoice to pay operation within large organisations with volumes as those indicated in section 4.8 of this specification, operating across multiple locations and currencies, basic requirements must include;

- Invoice processing (including e-invoicing)
- Payments
- Debit / credit memos
- Direct debits
- Prepayments
- Remittances

- P-Card processing
- 2, 3 & 4 way matching of invoices raised via a PO and matching single invoice to multiple PO's.
- Accounts Payable & Accounts Receivable Netting.

It must support a large supplier database (as those indicated in section 4.8 of the specification) including multiple supplier locations, as well as processing payments for employee expenses and payroll. Specifically it must also allow for the processing of zero value invoices.
Invoice query resolution must be via simple intuitive screens with supporting workflow to channel queries around the organisation to reach query conclusion particularly on invoice mis-matching.
It should support easy integration with scanning / character recognition software and other electronic invoice interfaces and platforms with subsequent simple access to the invoice image.
It must support the ability to post Inter Company Journals and Invoices in one entity that are automatically updated in another entity, with a support approval workflow.
Finally it should include a number of core accounts payable reports out of the box, such as, Invoice Registers / listings, Aging reports, invoices on hold, VAT reports / registers, remittances and pay reports.

6.3.2. Commitments

The software must support the extensive use of commitment and encumbrance accounting. This must fully support the procurement and accounts payable process, displaying and recording a commitment on a requisition separate from that of an invoice and controlling any spend or requisitions over the encumbrance amount. Setting of encumbrances must be possible at multiple levels with full visibility to the level set when raising or querying transactions. Commitment posting should be fully automated.
At year-end, it should allow for the carry forward of open encumbrance values from purchase orders to the first period of the next Financial year. There should also be a number of basic standard reports for commitment accounting including; Committed costs and Outstanding Commitments.

6.3.3. Expenses

The expense processing within the software must have full mobile capability for User to enter and submit claims with electronic images of the receipts that support the claim. It should have the ability to create 'in-claim' controls that are based around expense policies (e.g: limiting expenditure for a specific category) Such policies can have many versions and the software must support this. In some instances delegated processing is required and should therefore be supported, this also applies to approvals. It must also support claims via a procurement card and also must allow non-employees (contractors) to submit a claim through the software.

6.3.4. General Ledger

The general ledger capability of the software must be able to support a large complex general ledger (as those indicated in section 4.8 of the specification) and organisation structure (insert organisational structure as an appendix) and full consolidation capability integral to it. It must be flexible supporting company restructures within the GL without the need for major re-work or re-implementation. (e.g: Ability to move an element from one area of a hierarchical structure to another, with associated data being automatically realigned and historical data preserved). It must allow for multiple segments / analysis with the ability to build extensive parent and child structures. It must contain posting controls restricting posting of certain account code combinations.

The GL must support the Whole of Government Accounts and Clear line of Sight accounting principles.

Journals must have range a different selectable types dictating the subsequent behaviour (e.g: reversing journals for accruals and also including statistical journals). Approval of journals prior to posting should be included with the ability to define supporting workflow. Journal uploads from external sources such as excel should be available.

There must be the ability to hold multiple versions of budgets and forecasts which should be uploaded / downloaded to excel. Budget journals should also be available.

Intercompany journals should include the ability to approve the journal from the receivers end before the journal is posted.

The GL should also have the ability to show gross expenditure (inc VAT) when conducting analysis.

6.3.5. Accounts Receivable

The software must be able to support all the key aspects of operating accounts receivable transactions within a large organisation, operating across multiple locations and currencies.

It must support a large customer database (as those indicated in section 4.8 of the specification). Customer records must allow for multi hierarchical structures representing parent / subsidiary relationships along with bill to and pay from sites. Credit details and the setting of credit limits must be available within the customer record. These credit limits must then control / restrict the raising of invoices to all entities within the customer hierarchy if applied at the parent level.

Invoices should have the option to be transmitted electronically potentially interfacing to external platforms. Receipt processing should allow for electronic import and automatic matching.
The AR functionality should support the ability to post Inter Company Journals and Invoices in one entity that are automatically updated in another entity, with a supporting approval workflow.
AR functionality must include and support a full dunning process.
Standard reports should include, AR trial balances (receivables GL account balances analysed by customers); Aging report; Overdue accounts report (all customers with items overdue by a User-specified period); Cash receipts register; Monthly Statements and Reconciliation;

6.3.6. Project Accounting

The project accounting area must fully support the set up and running of large (as those indicated in section 4.8 of the specification) projects (budgets in excess of £1 million, timescale in excess of 5 years) often arranged to operate, plan, transact and bill within a programme. Upon setup of a project a number of User definable templates should be available allowing for the capture of a wide range of User definable data fields.
It must support the User creation (in addition to standard out of the box) of multiple billing and revenue generating rules. (For example revenue generated based on work done / hours worked or based on costs incurred)
There should be project controls available to control elements such as; billing based on funding and status of a project, spend on a project based on budget (which should feed through into procurement) and should also set off triggers if a specific User defined condition on the project is met. Funding must be possible from multiple sources / funders and the facility must be available to change the project ‘customer’ part way through a project.
It must also have the ability to hold multiple customers against a project with the functionality to provide a breakdown of the project by customer budget amount or by spend percentage
It should have the facility to create draft invoices and the ability to User define the layout and item grouping on the invoice.
It must have the ability to create and hold multiple budgets & forecasts against a project and allow a User to copy budgets from one period to another. There should be functionality to auto create forecasts based on actuals.
There should be functionality to manage a project pipeline (income pipeline) by creating a project prior to budget approval and tracking time and costs against this.

It should facilitate full resource planning through linking in with HR data. Resources for projects should be searchable based on skills and availability and then assigned to the project. Resources that can be allocated should also include equipment items that are held in inventory.

6.3.7. Project Planning

It is expected that the software must provide project budgeting, planning and forecasting capabilities suitable for multi-million pound projects and programmes. More specifically as part of the planning there must be the ability to extract, amend and re-load using tools such as MS Excel

6.3.8. Fixed Assets

The software must include the ability to handle a fixed asset register for an organisation of this size. It must have the capability for tracking the full life cycle of an asset along with all supporting history etc; allowing multiple depreciation methods, dealing with revaluations and impairments (which must be under the revaluation model under IAS 16 Property, Plant and Equipment), incorporate a multi-level hierarchy of categories and subcategories, (parent and child and child assets) allowing different depreciation methods being applied to child and parent. Assets must have to option of being created via either an AP purchases (combining multiple purchase items into a single asset) or the capitalisation of an asset following project completion.
It should also be able to track assets under construction.
Out of the box reporting should be able to report on: Depreciation, assets at cost, disposal detail and fully depreciated assets.
Finally physical assets should have a link to their corresponding record in inventory.

6.3.9. VAT / Tax

The VAT / Tax engine must be capable of supporting large transaction volumes (as those indicated in section 4.8 of the specification) across multiple jurisdictions, it should include detailed VAT reporting as standard.
It must cover all aspects of partial recoverability and support complex VAT rules, e.g: single items can have different VAT treatment based on its end use.
Specifically it must be able to handle the Contracted out Service Directive and the government rules for VAT.
It should also allow quick flexible changes to be made when making organisational changes within a VAT group.

6.3.10. Cash Management

Along with the provision of standard cash book and bank reconciliation the software must be able to support the auto-import and reconciliation of bank statements in multiple forms, across multiple banks.
It must also be able to support the use of multiple petty cash accounts across all organisations.
Furthermore it must also support capability for receiving debit and credit card payments.

6.3.11. FX

The software must be able to provide full FX support throughout the software, covering all currencies. It must also support related revaluations across all transactions.

6.3.12. Procurement - Sourcing

The procurement element of the software must be able to form integrations with external sourcing systems.
It should be able to support a bid process from creation to approval through all stages (PQQ, ITT, evaluation etc). Supporting this it should be able to track progress and record details.

6.3.13. Procurement - Purchasing.

The software must be able to support procurement within a large organisation with transactional volumes as those indicated in section 4.8 of the specification, supporting large complex buying channels, extensive approval hierarchies and extensive lists of purchase categories.
It should allow for purchases to be split across multiple cost centres.
It should support definable buyer limits and minimum purchase levels based on category.
Auto approval of PO’s must be possible, determined by supplier / category / value.
It must support integrations that are required with external stock management systems.
It must offer a fully mobile solution for the creation of purchase requisitions / purchase orders.
It must support the export of approved PO’s in multiple formats including interfaces to external supplier systems.
Also it should provide the ability for purchasers to be anonymous in all purchasing documentation where the goods or purpose may be of a particularly sensitive nature.
The software should support the creation and loading of catalogues including the creation of punch-outs. (In a variety of formats)
To further support this it must be capable of integrating with external vendor systems so that the update and maintenance of catalogues can be made by the supplier.

6.3.14. Inventory

The software should be able to support the creation and maintenance of large inventories (as those indicated in section 4.8 of the specification) including that of stock item locations and stock category / sub-category classification of items.

There should be flexibility in the creation of User definable SKU's for stock items that must be able to track and report shelf life.

It should also create re-order points with the capability to order stock automatically.

It should also allow for a variety of stock valuation methods to be used across organisations or multiple methods within one.

6.4. Functionality - *HR*

This section is focused on the core functionality of the HRIS / HCM part of the software, covering both administration of the employee lifecycle and also Manager and Employee self-service, but excluding payroll.

6.4.1. Core HR

The software must be able to do the following within the core HR area;

Record large, complex organisation structures (as those indicated in section 4.8 of the specification and structure as indicated at appendix A) with multiple T&C's across the group. Must have Flexibility to assign both organisational units and individual employees to particular cost centres.

Must have the ability for managers to be assigned to one organisation but control others, or act up, temporarily fill additional roles, hold dotted line relationships.

It must have the ability to record and track changes to Employee attributes including name details, salary, grade, location, function, title, addresses, etc., and the ability to add and track changes to custom attributes. It must have the ability to provide staff details to other interfaced systems (e.g. Identity Management) including notification of joiners, updates and leavers.

It must have the ability to record effective dating (future and past) for all changes to Employees where relevant.

It must have flexible definition and maintenance of a job catalogue/job families and skills tracking, also support for compensation benchmarking analysis.

It must contain extensive employee records that can maintain all relevant employment history details and cover multiple employment types (perm, fixed-term, agency contractor, intern, zero-hours, visiting staff, etc.) including the change of employees from one type to another without the loss of data. Control of access to self service capabilities across all staff types.

It must have employee self service capability to allow appropriate maintenance of the HR record by the employee, request of leave types, access to payslips (where payroll is integrated) and access to HR policy and process information. Manager Self Service capability to manage team records, view leave calendars, absence and any other configured workflow approvals (e.g. probation process, performance grading, etc.). Approval for training/learning requests.

It must have Manager Self Service capability to manage team records, view leave calendars, absence and (other) workflow approvals.
Movement of Employees through their lifecycle and through the organisation, e.g.: demotion, promotion, location transfer, organisation transfer, TUPE & COSOP. Secondments and split transfers should also be possible including the correct apportionment of time into payroll costing. Management structure changes.
It must have provision of flexible options to cater for Manager absence and vacancy in terms of re-assigning Manager responsibilities.
It must have full capability in managing the redundancy process along with, ability to provide automated tracking and review notifications for probation periods, right-to-work duration restrictions (e.g. visas), and other time-based employment event tracking.
It must have the automated production of tailored contracts, letters, notifications and other documentation required to support the HR lifecycle and the ability to edit these prior to issue.
Finally it must have the flexible and sensitive capture of diversity data (including via self-service) and appropriate security around this and all personal data.

6.4.2. Time & Attendance and Absence Management

The software must have all of the following requirements within this section;
Full time card capability, whereby employees can record their time in hours or days (which should be definable by organisation unit) across multiple projects and activities as well as recording non projects work from a list of configurable activities.
The ability to enter, approve and track flexi time (with varying eligibility), calculate balances and accruals and view details in the leave calendar.
Workflow management of absence requests and approvals while also providing triggers for key events where action is required (such as where a fit note / sick note is required, flag periods of absence that hit trigger points based on policy defined, etc.).

Full flexibility in the setup and management of multiple absences plans and absence types, including shared parental leave. This should cover the ability to record and calculate pro-rata holiday/ time off in hours or part days (e.g. for part-time staff).

6.4.3. Online Recruitment & On-boarding

The software should have the option to place approved vacancies on the Intranet for internal employees.
It should have the ability to post to Government and other recruitment websites and allow external recruiters to access role details. It should also have the ability to record data on channels used by candidates to arrive at eRecruitment sites (e.g. click-through data).

Internal & External applicants (direct or via agencies) should be able to apply on-line and attach electronic CVs. There should also be the ability to maintain a database of applicants and provide tools for mining this for candidates for future roles in specialist areas.
It should be able to track staff on internal redeployment or “at risk” and be able to offer roles internally to selected groups ahead of other Staff.
Automatically issue invite to interview communications to candidates.
Workflow or other capability to support capture and review of identity, pre-qualification and right-to-work checks.
It should automatically pass preferred candidate on to HR System On-boarding process and provide flexible reporting of all Recruitment data for HR and managers.

6.4.4. Performance Management

The software must have all of the following requirements within this section;
Support online appraisal setting, review and approval process with configurable content and configurable workflow. Support for both periodic and continuous review.
Create and record performance review notes and actions along with training and development needs.

6.4.5. Talent Management

The software must have all of the following requirements within this section;
Ability to record skills & competencies data across the worker population
Provide succession planning capability, both multi-year and multi strand, across the whole organisation.

6.4.6. Learning and Development

It must have Self service capability to search, book / enrol, record completion and feedback on internal training courses. Workflow to approve the booking of a course and the notification of deadlines for course enrolments etc.
Courses should be able to be created as mandatory or optional.
Learning Management should fully interact with performance management to allow the creation of learning pathways.
Finally it should have the ability to hold and deliver eLearning content (particularly SCORM compliant).
Learning Management should fully interact with performance management to allow the creation of learning pathways. Employees should see their learning history and how it applies to these.

6.5. Management Information & Business Intelligence

This section is focused on the core MI and BI functionality of the software, what is available to the Users, how data access is controlled and how reports can be created and shared. It also covers the real time aspects of the reporting functionality.

6.5.1. Usability

One of the key aspects of the MI / BI area of the software is personal configurable dashboard for each User. There must be the capability for report writing, which will allow access to data across the full software (dependant on the security settings). Access for who can create reports must be configurable as must security over who can see reports or data fields within in it.
Key aspects of reports must include the ability to drill down from summary reports to source transactions as well as multiple views and charts and allow what if scenarios. This must be available on both standard out of the box and User configurable reports.
There must be the ability to export reports in multiple formats (e.g MS Excel, pdf, Word) as well as functionality to send reports across the organisation directly in the software (i.e to not have to extract the report and send as an attachment in an email), with the ability to add notes and commentary.
The identification of data fields in the creation of reports must be intuitive. If knowledge of table structures etc is required to build report, this is not regarded as intuitive.

6.5.2. Real Time Data

The complete end to end system and all reporting on this must show real time data throughout to support fast resolution of issues and multi-step processes and to allow timely decision making. For example, a transaction posted that affects a report should be seen in the report without the need to wait for a scheduled process to complete.

6.6. On-going support, security, accessibility and disaster recovery

This section relates to the on-going support & maintenance of the software as well as the security, accessibility and disaster recovery aspects of the software along with the key principles it should meet up to.

6.6.1. Support Model.

The supplier must have a comprehensive support model that covers both technical and functional support, which should be available online 24/7, 365

6.6.2. Ease of Upgrades.

The supplier must provide offer a clear roadmap of regular upgrades to all aspects of the software that will be controlled and completed centrally by the Supplier. A detailed timeline with prior notice and upgrade details should be expected to allow for sufficient impact assessment.

This central support must minimise as much as possible the need for regression testing by the end Users. - Detailed timeline with notice and prior details for assessment.

6.6.3. Security

There are a number of key principles that any cloud service Supplier must adhere to when offering a service to the government. The supplier must be able to provide evidence of how they meet these principles. These are:

- User data and Personnel data transiting networks must be adequately protected against tampering and eavesdropping via a combination of network protection and encryption.
- User data and Personnel data, and the assets storing or processing it, must be protected against physical tampering, loss, damage or seizure.
- Separation must exist between different Users of the service to prevent one malicious or compromised User from affecting the service or data of another.
- The service Supplier must have a security governance framework that coordinates and directs their overall approach to the management of the service and information within it.
- The service Supplier must have processes and procedures in place to ensure the operational security of the service.

- Service Supplier staff must be subject to personnel security screening and security education for their role.
- Services must be designed and developed to identify and mitigate threats to their security.
- The service Supplier must ensure that its supply chain satisfactorily supports all of the security principles that the service claims to implement.
- Users must be provided with the tools required to help them securely manage their service.
- Access to all service interfaces (for Users and Suppliers) must be constrained to authenticated and authorised individuals.
- All external or less trusted interfaces of the service must be identified and have appropriate protections to defend against attacks through them.
- The methods used by the service Supplier's administrators to manage the operational service must be designed to mitigate any risk of exploitation that could undermine the security of the service.
- Users must be provided with the audit records they need to monitor access to their service and the data held within it.

Further details on all of these principles and how they should be implemented can be found here: https://www.cesg.gov.uk/guidance/cloud-security-guidance-summary-cloud-security-principles

The supplier must be able to confirm that they will operate their services in accordance with standards equivalent to the requirements of ISO27000 Series of Standards: ISO27001 - Information Security Requirements Specification; ISO27002 - Information Security Code of Practice accreditation.

6.6.4. Accessibility

The supplier must be able to demonstrate an on-going commitment to meeting and maintaining accessibility standards as set out by W3C - Web content accessibility guidelines.

Accessibility standards are covered in the Equality Act. The guidelines given in WCAG v2 are the standards for this act. The software must meet the minimum rating of AA.

6.6.5. Disaster Recovery.

A substantial disaster recovery plan and standard must be in place with the service Supplier that will ensure that regular data backups are taken through the day with a full backup every 24 hours to a DR site in another location that can facilitate the full restoration of services within 24 hrs of incident.

6.7. Technology, Digital platforms & Integrations

This section relates to the technical performance and reliability of the product, and also the flexibility, configurability and integration requirements. It also covers the ‘digital’ needs of the product. In this section the digital aspects are more technically focused than the usability / UI aspects covered in section 6.2

6.7.1. Cloud Availability.

As highlighted in the overview of the specification, the software must be a truly cloud offering. All services must be accessible via any suitable web connected device 24/7, 365, subject to reasonable system up-time requirements (Section 6.7.3).

All data centres must be in the EU or be able to provide a guarantee of compliance to government standards.

6.7.2. Availability / Reliability

It is expected that the Supplier should the meet target availability of 99.8%. Existing performance statistics should be able to demonstrate performance close to or in excess of this standard.

6.7.3. Performance & Response Times.

A minimum expectation is a response time that must be less than 5 seconds upon keystroke 99% of the time to the supplier’s system boundary. Exact performance commitments should be clearly stated.

6.7.4. Integration / Interfaces.

There must be full flexibility to allow integration in multiple forms / protocols that can facilitate interfacing with both internally hosted and external/cloud applications. In particular (but by no means exclusively) these must cover current market Sourcing solutions, Payroll solutions and internal Grants solutions.

7. <u>Services Specification</u>

7.1. Outcomes and Expectations.

This section sets out the deliverables and requirements of the system integration services aspects of the specification. The minimum expectation that can be applied to all elements within this section is that the supplier has significant experience of implementing the software. I.e. several successful full lifecycle implementations of the product, in an organisation of a similar size, that can be referenced. Another key expectation is that the design must be created so that it remains as generic as possible so that it can be scaled / rolled out to be used by other partner organisations without the need to stand up a large specialist project team.

It should be noted that the System Integration service is limited to the functionality, data, connections and vanilla functionality training of the HR & Finance application selected. Operational processes that utilise the system and training, organisational structures and communications relating to process implementation will all be handled by the BEIS core project team.

Within this section a specification element that is preceded with 'must' signifies a mandatory requirement. Where an element is preceded with 'should' it signifies a highly desirable requirement.

7.2. Deliverables / Requirements.

Below are the specific expectations and requirements for the System Integration services. These include:

- Product Experience
- Implementation Scope.
- Methodology Approach.
- Resources
- Training
- Data Migration.
- Integration.

7.3. Product Configuration & Implementation

7.3.1. Design

The supplier must deliver the full design lifecycle. They must maximise its potential in meeting requirements using standard configurable functionality.

7.3.2. Build

The supplier must implement the design and utilise toolsets and methodologies to create rapid build packages for both testing and production. The supplier will also create and supply detailed documentation to support the build which should be based around a recognised methodology / toolset.

7.3.3. Testing.

The supplier must be able to present and utilise tried and tested methods and approaches that will facilitate a rapid targeted approach to testing that is suitable for a cloud implementation. The testing should be scalable for a project of this size. Where applicable the use of technology to streamline or automate aspects of the testing should be employed. Referenced evidence of this approach to testing must be provided, showing the appropriate mix between User acceptance testing and automated testing.

7.3.4. Scale of Projects

The supplier must have extensive experience of successful full lifecycle implementations into organisations of this size and complexity. This experience should be referenced.

7.3.5. Breadth of Projects

It is also important that the supplier must have experience across a wide ranging variety of projects can be demonstrated which it is expected will bring with it a wide range of experience and knowledge that can be brought to this programme.

7.4. Project Approach, Methodology, Resources & Training.

7.4.1. Project Methodology

The supplier must be able to show use of either their own in-house developed methodology or the utilisation of an existing best practice methodology that will support the rapid deployment of the product.

7.4.2. Tool Set.

The supplier should utilise standard document templates and other deployment tools that can further support the project methodology in the rapid deployment of the product.

7.4.3. Capability

The supplier must deploy adequate resource for the service delivery that has sufficient and extensive capability in the areas of:

- Functional consultancy.
- Training.
- Interface Development.
- Data Migration.

All of this experience should be on the selected cloud software.

7.4.4. Availability

Project resources must be mobilised within 3-4 weeks of initiation. The supplier must deploy resources with multiple full lifecycle implementation experience of the software into similar size and complex organisations. The supplier must be able to give assurances that the resources allocated to the project will remain for the full project lifecycle. The resources can be a mix of both on and off shore however, all functional and training resources must be onshore on site resources, 5 days a week.

7.4.5. Experience

The training offering and resources must demonstrate significant product experience, with multiple references to successful large scale, training roll outs to organisations of a similar size. This experience should show the use of a variety of Innovative methods ensure training reaches multi-located and multi skilled trainees.

7.4.6. Training Tool Set and Approach

The training approach should be one that embraces the ‘digital’ nature of the project. It should incorporate current ideas away from the traditional approach of classroom / training guides. A standard tool set that is innovative and tailored towards the roll out of a cloud / digital product. As much as possible it should leverage tools that enable learning outside of the classroom and delivers maximum benefit for minimum time away from the trainees day to day duties.

7.5. Data Migration and Integration/Interface Development

The section is for the supplier to demonstrate the experience and approaches they would adopt for the support and delivery of data migration and the design and build of integrations/interfaces as part of the overall project delivery with evidence of where it has been used in the past.

7.5.1. Experience

The supplier must have large scale experience of migrating from multiple legacy system to the chosen software to organisations of similar size as indicated in appendix A. This experience must be evidenced through the referencing of successful migrations of similar size and scale.

7.5.2. Data Migration Tool Set

The supplier must be able to offer a standard tool set that can be quickly adapted to be able to support the rapid establishment of a data migration mechanism that can be tested and then deployed. This must be able to handle a large volume of transactions (as those indicated in section 4.8 of the specification) across multiple organisations and should be easily adaptable to extract from a range of legacy systems The tools should be able to support data validation prior to and after a data load and should be fully automated in its process of extract, transform and load.

7.5.3. Approach

The supplier must be flexible in their approach to an implementation that will be governed and dictated by the BEIS central programme team. The key focus should be to ensure that integration is done in the most efficient manner possible. For data migration, the focus will be on migrating the minimal feasible amount of data. However the approach should also support the programme in the development, creation and migration to the target data archiving solution. , the development

7.5.4. Design

The Supplier must design interfaces and technical developments based on User and system requirements that can cover multiple external systems and protocols. Designs must be consistent in their approach. The supplier must be able to provide evidence of a toolset that they use to ensure this consistency.

7.5.5. Build

The Supplier must build interfaces and technical developments across multiple protocols. All builds will be backed up with extensive consistent documentation. The Supplier should be able to provide evidence of a toolset that they use to ensure this consistency.

7.5.6. Testing

The Supplier shall be responsible for the testing of the developed interfaces, technical developments and data migration tools. They should have a standard approach that can be tailored to the specific needs of this organisation with a toolset supporting it that can be rapidly rolled out.

8. Supporting Documentation.

The Supplier must provide full security documentation about their service provision as well as data / information sheets and documents about the standard functional software service provision that supports its capability to meet the specification, as well as details on it digital / mobile capability.

9. Implementation Timescales.

The full lifecycle of the implementation is anticipated to be 12 months, from Design, Build, & Test through to deployment and handover. The final implementation approach is yet to be agreed however these are strong indicative timescales.

10. Performance Measures.

Below are the key high level performance indicators the supplier will be measured against as part of their delivery of the software & system integration services;

Software solution:

- **Significant mobile capability.** - Key end Users functions for HR self service, Purchase requisitions, Expenses and Key (definable) Management information metric, would be available on a Mobile device 24/7, 365. If the software requires that any of these functions need to be carried out on a laptop or desktop, this will be deemed as a failure.
- **Scalable and flexible** - The majority of configuration elements, (once the initial configuration and knowledge transfer is complete) must be possible without the need for specialist outside consulting knowledge. Key indicators are that company restructures and workflow changes can be made by existing in house staff. If investment / external assistance is required in making the changes this will be deemed as a failure.
- **Transaction volumes** - The expectation is that the software must be able to process large volumes of transactions (as those indicated in section 4.8 of the specification) without system lag, 99% of transactions should respond within 5 seconds of keystroke.
- **Continuous Improvements** - The expectations is that the supplier will provide a structured path of upgrades that will deliver continual functionality enhancements as well as legal and system support / patches. It is expected that the supplier will release at least 1 upgrade that includes functionality enhancements every 12 months. Furthermore, the upgrades should require minimal regression testing by the Users.

System integration services:

- **Delivery** - The key measure of project delivery will be that the supplier hits milestones agreed in the Over-Arching Programme Plan. (The Over-Arching Programme Plan will be created and managed by the BEIS programme management team). Slippage will only accepted with a change request agreed by the programme governing board.

- **Resource availability -** The supplier will be measured by its ability to meet the onsite presence demands as directed by the programme. For functional consultancy this is expected to be a 5 day a week presence. For technical consultancy this can vary on a case by case basis some of these activities may be ‘offshored’.
- **Cost**. **-** The supplier is expected to delivers the system integration services within a 10% variance on the original agreed budget. Any additional changes to the budget (e.g: via a change request approved by the governing board) will still be subject to this performance measure.
- **Design Quality** - The quality of the final configured solution will be measured by its ability to meet the agreed requirements. It is expected that all mandatory requirements are met. Mandatory requirements
- **Build Quality** - It is expected that prior to cutover (and following the conclusion of testing) there are no Critical (cannot go-live without resolution), high (Can only go-live if a robust temporary work around is in place and resolution is to made imminently after go-live) or medium level defects open (Can only go-live if a suitable robust work around is in place).
- **Migrations** - The expectation is that all migrated data is successfully loaded to the over-arching programme plan and is fully reconciled and signed off by the organisations.
- **Training** - The expectation is that at the conclusion of training the feedback confirms that Users feel prepared and sufficiently skilled for the new system.
- **Documentation** - The expectation is that at the completion of the implementation all configuration and build documentation is completed, handed over to the department and accepted.

11. Quality Assurance.

In addition to the quality assurance that is inherent in the test approach / specification, the deliverables (i.e documentation, development configuration etc) will be independently assessed for quality by our own internal teams.

12. Change Record

No.	Version	Change	Author	Date
1	0.4	Removal of section 6.7.6 - “Real time data” - Duplicated from Management Information Section	Simon Deeley	07/09/16
2	0.4	Section 6.7.1 - Title changed to Cloud Availability	Simon Deeley	07/09/16
3	0.4	Section 7.4.6 - “Training” added to the heading.	Simon Deeley	07/09/16
4	0.4	Section 6.2 - Re-written to highlight economic benefits of each sub-section and make each distinct.	Ian Hicks	07/09/16
5	0.4	Section 6.7.5 - added in specific reference to Sourcing and Payroll interfaces.	Ian Hicks	07/09/16
6	0.4	Ease of Configuration section moved from 6.7 into 6.2. System availability and system performance removed from 6.2 and consolidated in 6.7.	Ian Hicks	07/09/16
7	0.4	Section 7 - Edits to ensure all aspects of config, data migration, i/fs, training and overall methodology are covered. Highlighted that Process work will be done internally.	Ian Hicks	07/09/16
8	0.4	Updates made to all sections following feedback sessions.	Simon Deeley	12/09/16
9	0.5	New version created for final review	Simon Deeley	12/09/16
10	0.5	Update highlighting must have / should have.	Simon Deeley	13/09/16
11	0.6	Minor amendments following final review from Innovate UK	Simon Deeley	13/09/16
12	0.7	Minor additions made to fixed assets and VAT / GL (accounting for VAT gross)	Simon Deeley	13/09/16
13	1.0	First version following consent from the implementation board.	Simon Deeley	14/09/16
14	1.1	Updated version based on RED review feedback. - Changes are based on section 10 which is updated to give more clarity on how the supplier / software performance and suitability will be measured.	Simon Deeley	21/09/16
15	1.2	Intro updated to remove BEIS 2020,	Simon Deeley	21/09/16

		volumetric data added		
16	1.3	Final changes prior to release.	Bernie Marsh	21/09/16
17	1.4	Changed ‘Consumer’ to ‘User’ as a defined term.	Bernie Marsh	21/09/16
18	1.5	Additional comments made to the first paragraph in section 6.1	Simon Deeley	23/09/16

Appendix A - Indicative User Volumes per Organisation.

Council	**Approx Users**
UK Shared Business Services	500
Arts and Humanities Research Council	100
Biotechnology and Biological Sciences Research Council	250
Engineering and Physical Sciences Research Council	250
Economic and Social Research Council	150
Medical Research Council	2000
Natural Environment Research Council	2200
Science and Technology Facilities Council	2000
Innovate UK	300
Total	**7750**