Contents

1. Introduction

1.1. Overview

RSSB is a membership organisation with a system wide perspective focussing on the whole railway and not the parts.

Their purpose is to help their members and consequently the industry to continuously improve the level of safety in the rail industry, drive out unnecessary cost and improve business performance.

RSSB is a not for profit organization funded by grants from the government and the Railway operators, as well as membership levies from its members.

1.2. Purpose of Document

The purpose of this document is to provide a high level solution requirement for the RSSB system change programme for replacement of the Finance, ERP & CRM systems.

This document specifically covers the Finance and ERP work streams.

This will provide information to allow RSSB to procure a new ERP system and allow the business to estimate an investment level for the programme.

1.3. Company Structure

The Railway Safety and Standards board is made up of a number of legal entities:

- Rail Safety and Standards Board Limited (RSSB & CIRAS)
- Rail Documentation and Drawing Services Limited (RDDS)

CIRAS is a department within RSSB that carries out a separate business function. Its data is confidential and has strict rules around sharing this data within the business.

The day to day finance functions, statutory accounts and reporting are carried out by the CIRAS team.

1.4. Background

This document has been produced as a result of a number of days' consultancy analysing the requirements for system replacement within RSSB.

After reviewing around 60 disparate systems (Appendix 1) that are used day to day in the organisation as well as interviewing many key stakeholders in the relevant teams, it is apparent that the current systems are not satisfactory both in terms of functionality and robustness. The current systems have generally been put in over a long time frame with minimal focus on integration processes and the sharing of core business data. Some are not capable of providing the functionality that the business requires to operate efficiently and overall they are not able to offer the robustness and resilience that should be provided by core business systems. An example is that some systems require manual double entry, paperwork being printed, completed and passed around the office and time lapse between certain data being available for use by other departments. This is both frustrating to staff and is a waste of resources that could be deployed more effectively elsewhere.

There are substantial benefits to be derived from embarking on this programme, the aim of which is to combine the functionality of the business into a single integrated platform that can be utilised and configured as per RSSB's requirements.

This document has been designed based on the functionality of Typical ERP product suites and to comply with RSSB's policy of utilising the Microsoft stack for preferred operating platform for RSSB.

1.5. Drivers for Change

The drivers for change for the Finance, ERP and CRM programme are detailed below:

- Over 60 disparate core business systems used across RSSB
- Minimal integration and sharing of core data
- Finance and Procurement legacy systems and associated reporting modules are no longer fit for purpose
- Inefficient functionality, multiple-entry and manual intervention
- Concerns around robustness and resilience of legacy systems
- Contact data stored in spreadsheets or individuals' Outlook
- No single view of customer contact and engagement

1.6. Scope of Solution

The ERP Replacement Programme will focus on operations covering the breadth of the business.

This will include the business processes surrounding:

- Financial Management
- Billing / Receivables
- Procurement / Payables
- Project costing
- Time Recording Activities

There is a full list of the systems analysed in Appendix 1

2. General System Functionality

2.1. Overview

RSSB have embarked on a journey to arm themselves with a consistent, intuitive and a well-supported arsenal of business tools.

The base platform for RSSB has been selected as the Microsoft Productivity Suite, including Office 365 and SharePoint.

This platform has been selected to as it is a flexible and scalable solution that allows RSSB to extend their activity against a roadmap that has a suite of products that are constantly being enhanced and updated.

2.2. Solution Requirements

2.2.1. Non-Functional Requirements (Applicable to Entire Solution)

2.2.1.1. System Access and Security

The system **must** have the ability to be accessed from the internal RSSB Network, and via VPN/Remote access over the internet.

Accessing to the applications remotely **should** be via a secure https connection.

The system **must** have an auto save feature to ensure no user input is lost in the event of web or mobile application failure. It shall be possible to resume data entry from the auto-saved point.

The system **must** record all data changes to facilitate undo during editing. It shall also be possible to undo auto-saves.

Because of the nature of some of the work inside the organization is of a very sensitive nature (e.g. CIRAS), the solution **must** allow appropriate security so that certain records can be restricted to certain Directorates and/or business units.

To ensure a consistent experience for staff and to ensure high levels of security, RSSB intent to use two-factor authentication to Azure Active Directory so the solution **must** provide authentication with Azure Active Directory

The system **must** prevent access by unauthorised users.

The supplier and the system **must** comply with ISO 27001 for information and security management.

The mobile application **must** request a password at first login and shall keep the user logged in thereafter.

The Solution **must** support use of mobile devices.

1. Windows 10 Mobile devices (**must**)
2. IOS (**must)**

3. Android (**must)**

The solution **must** allow web browser access through the following browsers

1. Internet Explorer
2. Safari
3. Chrome
4. Firefox

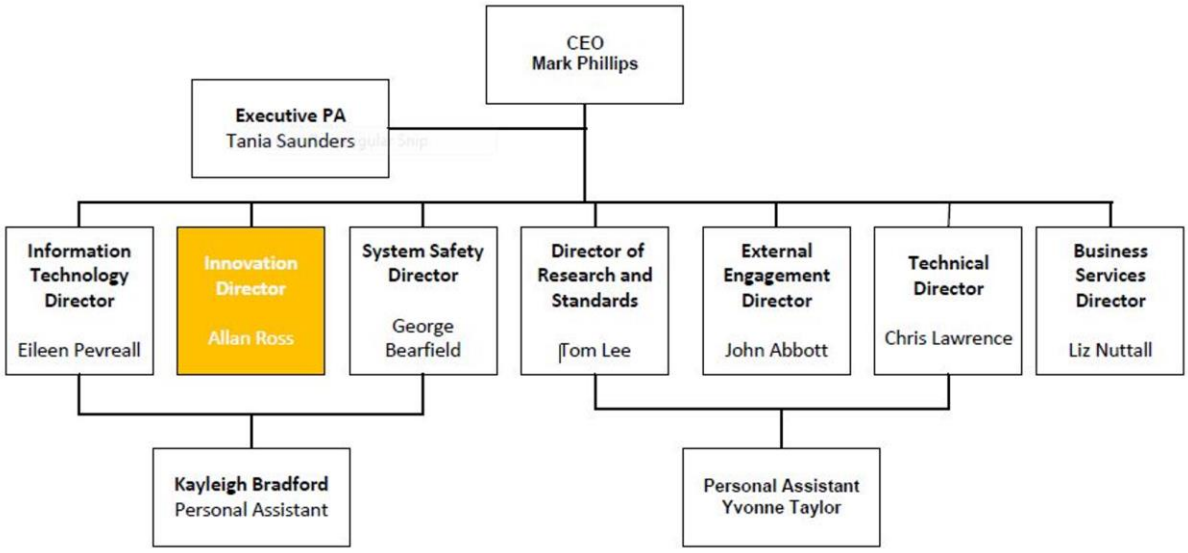
2.2.1.2. System Availability

Due to the fully integrated nature of the ERP it needs to have a high level of availability, the solution **must** provide 99.7% uptime 24 hours a day, 365 days per year.

All databases and applications **should** be backed up (or capable of being backed up) to enable recovery in the event of failure

2.2.1.3. Organizational Structures

The ERP needs the concept of Departments and/or teams which supports the hierarchical structure required. The envisioned application **must** be able to support RSSB's hierarchical organization structure including Directorates and Departments. Example below.



2.2.1.4. System Development

Due to the external environment RSSB there may be regular changes in the way the business operates. For instance, RSSB is currently two years into a five year fixed funding period, at the end of this it may mean that additional models and information is required to be stored in ERP to define fees payable by members. The system **must** be able to evolve with the organisation to support RSSB's continued development, for example allowing new companies to be created, companies to be merged and user groups/roles to be added and modified.

Currently RSSB staff only have visibility on the interactions that they are having in their own group or Directorate. Data generally doesn't provide the ability to be forward thinking as it is stored in disparate systems or spreadsheets, the solution must support the ability to access data between all Directorates and to provide greater insight to internal team members along with the ability to be more pro-active with all stakeholders

2.2.1.5. Existing Systems

RSSB are engaged in a project to move their Exchange, Lync and SharePoint intranet over to Office 365. The solution **must** support the ability to seamlessly integrate into Office 365

2.2.1.6. GUI

The user interface **must** be presented in a clear and uncluttered way and make the interaction between the system and the user as simple and efficient as possible throughout the stages of the process.

The web application **should** employ a responsive design where screen layouts dynamically adjust to the size of the browser viewport.

2.2.1.7. System Performance

The system **should** respond in a way which is consistent with a modern internet based application. This shall be typically based on the following performance criteria:

- Login: maximum of 5 seconds
- Navigation between pages: maximum of 1 second
- Saving data: maximum of 2 seconds
- Access to reference data from within an event should be less than 1 second (instantaneous).
- Running a typical BI report for 30 days' data containing up to 500 records should return within 30 seconds.

2.2.2. General Functional Requirements (Applicable to Entire Solution)

2.2.2.1. General

The Solution **must** support all applicable IAS, IFRS, UK GAAP and all legislations for UK based companies with timely system upgrade to enable RSSB to continue meeting its reporting and compliance obligations as and when changes occur.

The solution **should** support the update of statutory reporting requirements without the need to upgrade the entire system.

The solution **should** support interfaces with multiple other systems including:

- AP Forensics;
- Payroll and HR;
- Workflow management;
- Document management;
- Project Management;
- Image/Scanning/OCR;
- UK Banking platforms;
- Postcode/address look-up confirmation system; and
- Mapping / Route Planning;

The solution **should** provide workflow functionality across all system modules to progress transactions from input, to review, through a hierarchy of approvers and postings.

The solution should allow workflow functionality to generate notifications based on a generic data driven tool within the system, for example notifying a manager where a timesheet has not been completed by a certain date.

The system should allow additional holiday functionality for users to redirect inbox or worklist to approved alternate users for defined period of time. It should have the ability to configure the type and look of alerts to users.

The Solution **should** have flexible, configurable workflow routing rules with workflow templates that can be saved and re-used. Flexible amendments (subject to authorisation).

The Solution **should** have functionality across all modules to attach documents in any format (word, emails, spreadsheets, pdf, links to documents, etc.) to master data, journals or any other transaction type in the system (for example invoice copy in the AP ledger), excel workbook to back-up journals, etc.

The solution **must** have the ability to export data in a variety of formats, including:

- Text
- Word
- Excel
- CSV
- Graphical Files / Charts

The Solution **should** support an approval process whereby all costs posted to a budget or cost centre are approved by that budget holder or a delegated level of authority, whether the cost comes directly from a PO/invoice or is reallocated from a journal or other source.

The solution **should** force corrections, where necessary to be done at the source transaction level in the sub-ledger (or reflected/associated with the original transaction/invoice) and keep track of history of postings.

The Solution **must** have the ability to restrict access at user level (e.g. roles associated to individual user ID can restrict what that user has access to, based on region, activity, expense/revenue type, etc.).

The solution **should** allow users to be restricted at a combination of read, write and authorise levels.

The solution **must** have the ability for a system administrator to modify the permissions for a user at an individual or group/role level.

The Solution **could** have functionality to auto-fill certain fields based on user profiles and roles so as to reduce the risk of errors or omissions in coding of transactions or journals.

The Solution **could** support Excel Add-ons; this might include Excel reporting or to assist with the creation of complex client facing documentation

The Solution **must** have the functionality to run multiple configurable validation routines based on account type, hierarchical structure, user role, etc. at the inception of transactions to reduce the risk of miscoding/misposting (e.g.: user restricted to their region, only valid account codes, valid period posting dates, monetary value in monetary fields, check for duplicates, minimum data entry/journal details, etc.).

The Solution **should** support electronic submissions to UK Companies House for all statutory information returns.

The Solution **should** have user defined data updating/refresh (e.g. real-time, hourly, multiple daily, as and when required).

The solution **must** support the ability to work offline in a situation where a stable internet connection isn't available. Data must be kept synchronised and consistently be handled.

The Solution **should** have a consistent appearance and terminology across all modules (date and time format, header descriptions, etc.).

All dates **must** be stored in UTC with time zone offset.

All currency fields **could** store both the amount and the currency type.

All measurement fields **should** store both the value and the unit used (imperial and metric).

Times/dates/currencies and measurements shall be displayed alongside their time zone offset, currency type and measurement unit.

Training

- **RSSB Will expect sufficient training to be provided to meet the requirements below.**
    - To achieve a satisfactory level of competency in use of the system for the initial minimum level of licenced users as specified in the attached pricing schedule
    - To leave in place a system of “Super” users for each of the major system functional modules
    - To leave trained to a level of competence IT staff that are able to administer the system and achieve basic customisations and configurations changes.

3. Finance

3.1. Overview

The finance team are responsible for the accounts of the RSSB business (including CIRAS), as well as the accounts for RDDS.

CIRAS and RSSB currently share the same Purchase Ledger. CIRAS and RDDS have their own segregated Sales Ledger which are in separate companies in the existing Sage 1000 database.

The finance team carry out purchase ledger, finance accounting and statutory reporting of the CIRAS business as well as the full accounting for RSSB and RDDS. There is no statutory reporting for CIRAS separately from RSSB as it is currently the same legal entity.

The finance team operate to standard practice and feel that their requirements should be fulfilled by most enterprise finance applications.

3.2. Current Solution

The finance team at RSSB currently use a bespoke version of Sage 1000 2.3. The team feel the solution is restrictive and causes frustration through what are basic operations for any finance system.

The existing system has been customised and the team feel that some of the functionality it does have hasn't been made use of during its time of operation.

There are a number of other systems used within the finance team, these are:

- Codis – Codis is used to upload Sales Journals, Sales invoices/credit notes, Cash receipts and NL Journals to Sage from Excel.
- Bottomline – a Legacy product that was used to upload BACS files to the bank accounts but is being retired.
- Infor PM – management reporting system.

3.3. Users Requirements

The table below breaks down user and employee metrics for licence pricing and implementation costs. The table is broken down into the following sections:

Section	Description
Full System Users	Full System users are raising & processing orders, carrying out posting activities and would spend most of their working day within the system
Light System Users	Light users are sporadic or basic users; they raise simple orders or make enquiries into the database for information. Light users have unlimited read only access but are limited to the write abilities.
Timesheet Users	Timesheet users who will only enter timesheets and do not fall into the Full or Light user category. Any Full or light users who produce timesheets should not be counted again
Reporting Users	Users who carry out advanced reporting or analytics functions within the team but don't access the ERP system.

Full System Users	System Light Users	Timesheet Users	Reporting Users

3.4. Solution Requirements

3.4.1. Company Structure

The RSSB system currently has three companies in SAGE. RSSB and RDDS are currently separate legal entities and CIRAS may become a separate company in the future. The ledgers should be kept separate for the three systems.

The solution must support the ability to hold multiple companies within the same database, separating out master data and ledgers for all companies.

The solution could provide the ability to copy or share setup and master data between certain companies where required.

3.4.2. Statutory Reporting

The solution **must** be able to produce financial reports that adhere to UK statutory legislation.

3.4.3. General Ledger

3.4.3.1. Chart of Accounts

The replacement for the finance system is expected to hold the fundamental functionality that exists within a finance ERP. The system **must** provide the ability to post financial transactions to accounts, with a number of flexible attributes and controls and to support the ability to hold transactions in

various sub ledgers which can all post directly into the general ledger. The expected sub ledgers are as follows:

- Sales
- Purchase
- VAT
- Bank
- Resource
- Fixed Asset

The Solution **must** provide a fully configurable chart of account for all balance sheet, income, expense, memo, statistical, financial and non-financial accounts with ability to have account hierarchies (nominal codes supported by hierarchy).

The Solution **must** support a flexible general ledger account structure.

The Solution **must** provide fully configurable company hierarchical structures e.g. areas within regions, business units, divisions, cost centres, with ability to run multiple hierarchies on defined fields (or similar functionality to allow easy reporting on one or several dimension).

The chart of accounts **must** be able to be edited by a user where permissions allow, it also should allow automatic numbering to allow sequential generation of nominal codes. Entering nominal codes in the correct sequence should enter the G/L account in the correct ordered position within the chart of accounts, and automatically indent where necessary. The system should prevent posting codes being generated for P&L cost centres and B/S account codes.

3.4.3.2. General Ledger Configuration

RSSB Operate on a 13 period financial calendar. The Solution **must** support a configurable accounting calendar/periods that is able to support this functionality.

The general ledger functionality **should** be easy to configure and allow a user to change posting setup, dimensions and attributes, where permissions permit.

There is a requirement for the Solution to have the ability to analyse financial transactions across a number of analysis codes. These analysis codes **must** be linked from the master data records (Customers, Vendors, Jobs etc.) through to the documents (Orders & invoices) and then at a transaction level to able detailed analytics to be carried out.

Currently there are four types of analysis codes used in Sage. These are:

- Cost Centres – there are approximately 15 cost centres.
- Project Codes – there are approximately 200 Project Codes.
- Matrix Codes (Project Codes for research and development projects)
- Authorising Body (Source of Funding)
- I numbers (Future Railway)
- T Numbers (R&T)

RSSB are looking for the Solution to support a Business Unit dimension in addition. The solution **must** support a business unit dimension that will allow transactions for different business units to be

segregated so certain users are only able to view certain transactions for a particular business unit. This will allow the CIRAS business unit to be separated, and R&D and Innovation.

Currently journals are being created in Excel and are uploaded to Sage via the Xcelerator tool. The Solution **must** support imports of financial journals from external sources, including Excel, CSV and Fixed width files.

The existing system doesn't allow production or analysis of the Trial balance by a matrix code due to the way they are stored. The system **must** support a detailed analysis of the chart of accounts, balance sheet and P&L by dimension.

Also in SAGE currently there is no control around the posting of dimensions, ensuring that the correct dimensions are coded to the correct accounts. The Solution **could** allow controls around the posting of dimensions to prevent incorrect cost centres etc. being posted to incorrect nominal codes.

The system **must** have the ability to cross charge Purchase & Sales transaction to departments within the company.

3.4.3.3. Payroll Processing

The existing Payroll function for RSSB is currently outsourced to a third party Bureau. ADP currently process the entire payroll function for the 292 employees within RSSB.

It is felt within the business that it would be more efficient to continue to outsource Payroll to ADP but the objective would be to improve the way data is transacted between the RSSB systems and ADP system to improve data integrity and reduce effort.

The system **should** support the ability to process Payroll transactions for 300 employees within RSSB.

The system **should** have the ability to hold historical payroll information for employees that have left the business.

The Solution should hold employee information within to hold key information which can be passed to ADP.

These **should** include, but not exclusively:

- Employee Name
- Employee Address
- Email Address
- National Insurance Number
- Base Salary, Reference Salary, Salary exchange
- Starting & Leaving dates
- Bank account details
  Working Hours

The system **should** allow an employee record to be blocked so they may be filtered out of any export/import that is processed.

The system **could** support other areas of data with regards to an employee. This data should include, but not exclusively:

- Organisation Structure
- Banding
- Skills Matrix
- Resource Costs

The system **should** provide adequate reporting around the following areas:

- Absence & Sickness
- Staff Turnover

The system **should** provide adequate reporting around employee information, including absence registers.

Currently when payroll is processed by ADP, the pay figures are passed back to the finance team for entry into Sage. The BACS payment is processed by the bureau. When the figures are passed back to the finance, a spreadsheet is generated and uploaded to Sage. It would reduce data input errors and processing time if this function could be carried out via a journal import on receipt of a file from ADP.

The system **must** allow general ledger level analysis of payments between permanent staff and temporary staff/contracts.

All expenses are currently paid through payroll/ADP but should RSSB wish to pay expenses through the purchase ledger moving forward, any Solution **must** support payment of expenses using purchase invoices and the Purchase ledger.

The Solution **could** have functionality to automatically post changes in payroll allocation in current period (e.g. for employees who moved in prior period but were incorrectly allocated).

The solution **should** be able to report on holiday/absence time booked from the timesheet system to allow payroll to be generated.

The solution **must** provide the ability to bulk upload new, and bulk update existing Payroll information, for example employee addresses.

3.4.3.4. Foreign Currency

The Solution **must** be flexible in its support of Multi-currency. Currencies and exchange rates **must** be user configurable (where permissions allow). Exchange rates **must** be able to be configured by a date range and allow posted documents to pick up the correct exchange rate based on the tax point date of the invoice.

The system **should** have the ability to revalue exchange rates as of a certain date and make the relevant adjustments to the ledger entries. The control of this posting should be configurable at a currency level.

The system **should** support the integration to online web services to provide the finance system with current currency exchange rates.

The system **could** support the ability to handle Foreign Exchange Contracts and **should** handle Unrealized Gains and Losses.

The solution **should** allow the Profit & Loss reporting to provide figures based on the Spot Exchange Rate, whilst the Balance sheet should be valued at the actual Exchange Rate.

3.4.3.5. Consolidation

RSSB and RSSD operate as separate entities and there is no requirement to carry out consolidation reporting for each of these entities.

3.4.3.6. Journal Posting

When a journal is created in the existing finance application, the journal is created by one user and then can be parked for review or posted directly by that user.

The Solution **must** support the ability to have a journal allocated to a specific user which can be worked on independently of another user.

The system **must** also support the ability to create an approval workflow process for a journal. Allowing a journal to be created and an approval request sent which will notify the approving user to review the journal before it can be posted.

The Solution **should** also support multiple journal types with configurable format and transaction template (e.g. general, inter-company/department, matrix code, I code, project code, automatic reversing, non-reversing, recurring journals for accruals and prepayments, bad debt provision, statistical entries, import from other systems, etc.).

Currently there is not functionality to attach scanned documents or files to journal transactions to be stored in the system. RSSB would like this functionality.

The solution **should** provide the ability to attached files or documents to transactions within the system.

3.4.3.7. Period End Processing

There is a requirement for a billing routine that generates sales invoices for membership levies. This requirement is in the membership section of the document will cover the periodic generation of sales invoices for membership levies.

At period end, CIRAS are creating sales invoices in Excel for the membership levies (different approach for 2016/17 invoices). This consists of around 60 RSSB members and 1200 CIRAS members and isn't a particularly high volume.

The Solution **should** support multiple journal input methods e.g. single journal, batch, spreadsheet, text file, manual, electronically from feeder systems.

The Solution **should** provide automatic reconciliation of ledgers/sub-ledgers with alert or exception reports of any issues.

The Solution **should** allow multiple periods open at one time for the G/L, independent of the period open window at the module/sub-ledger level.

The Solution **should** provide flexible controls allowing or preventing specified users from posting to periods other than the current period.

The Solution **should** have flexibility to re-open closed periods and make prior period adjustments, subject to authorisation.

3.4.3.8. Additional Year End Processing

RSSB Carry out standard year end processing and the new system must support the ability to close off a financial period once processing has been completed.

The Solution **should** have flexibility to have previous year open during current year, to enable deferred completion of 'year-end' accounts and postings of audit adjustments.

The Solution **should** have straight forward year-end roll and clear procedure.

The Solution **should** have functionality for current year to be transferred to history and only opening balances for new current year.

The Solution **should** provide for multiple number of years of history for analysis purposes.

3.4.3.9. Interest

In the existing finance system, the finance team have no way of diarising interest accruals for transactions. This would be a great benefit to the business to have an automated journal to process these transactions.

The system **should** support diarised interest accruals within a Journal.

3.4.3.10. Reporting

Currently RSSB are not able to report on General ledger transactions by supplier as the purchase transactions are stored within the purchase ledger. The system must support the ability to look a supplier code that is stored against a general ledger entry.

The Solution **should** provide a suite of standard general ledger reports, which may be configured, used, saved and re-used, including:

- Trial balance, detail and analysed
- P&L (summary & detailed), by business unit, cost centre, project code, I code, matrix code or area level
- Balance sheet, detail and summary
- Previous year or period comparative balance sheets
- Balances, such as opening and closing at any point in time
- Cash flow statements and analysis
- Period management and financial accounts
- Cost centre, projects, activity reports (Including Timesheet Reporting)
- Overhead analysis reports
- Actual versus budget or vs forecast or vs prior period, plus variances at purchase order level and project code level (value and %)
- Current year to date (actual) vs last year (actual) or vs budget/forecast, plus variances
- Transaction lists and history
- Bad debts
- Chart of accounts and account listings, including new and closed accounts
- Control reports such as transactions by user ids / dates, types
- Rejection and error reports
- Allocation reports
- Reconciliation reports
- Audit trail reports (including changes to supplier master files)

RSSB would like to look at a self-service reporting tool that would allow them to configure and produce their own reporting formats. This is covered in the reporting section of this document.

3.4.3.11. Additional Government Requirements

A report is prepared every quarter for the Department for Transport. Currently this is exported directly from Sage and manipulated into the correct format. This is a time consuming process and is open to data errors.

This report is embedded below:

DFT Report - Quarter 3.xls

A forecast report is also created for the first three quarters of the financial year.

The solution **could** provide relevant reports to report the quarterly reports to DfT

The solution **must** provide a flexible reporting engine to allow RSSB employees to create tailored reports which the team can use for the DfT reporting.

3.4.4. Fixed Assets

3.4.4.1. General

There is currently a fixed assets register held within the Sage system. The fixed assets register is supported by additional information currently held within an Excel spreadsheet. The system **should** fully support a fixed assets register and surrounding functionality to allow all data and calculations to be held in one system.

3.4.4.2. Asset Records

The Solution **must** support an asset register Assets can be kept by asset categories, regions or areas within regions.

The Solution **must** have functionality to hold multiple customisable status flags against a fixed asset (held for sale, void, disposed, etc.).

The Solution **should** provide multiple user defined fields to capture data at asset level and allow more characters in fields than our current SAGE 1000 solution.

The Solution **should** support multiple asset coding categories or sub-categories (assets held for sales, land, building, engineering, external works, computer equipment, vehicles, etc.)

3.4.4.3. Asset Acquisition

The solution **must** provide functionality to add new fixed assets acquired by RSSB.

The Solution **must** provide functionality to add assets already partially depreciated e.g. by allowing entry of prior period depreciation.

The Solution **should** support additions to existing assets (extensions, incremental payments adding to an asset's value).

The Solution **should** provide functionality to be able to amend assets e.g. joining together of several assets, separation into many assets, re-categorisation.

3.4.4.4. Depreciation

The Solution **must** support depreciation of all categories of assets (e.g. those classed as Held for Sale, Land (IAS17), intangible assets).

The Solution **must** allow concurrent usage of multiple depreciation methods for different assets and parent / child groups of assets for Dual Reporting.

The Solution **should** allow depreciation pattern to be changed at any point in the cycle at individual asset or category of asset level (e.g. accelerated depreciation or retrospective adjustments), subject to user access/approvals.

The Solution **should** allow depreciation pattern to be changed at any point in the cycle at individual asset or category of asset level (e.g. accelerated depreciation or retrospective adjustments), subject to user access/approvals.

The Solution **should** allow for in year cost (and accumulated depreciation) adjustments to reduce the value of assets over capitalised in prior years (e.g. correcting over capitalisation from accruals). These cost adjustments should appear separately for reporting/reconciliation purposes.

The Solution **should** generate depreciation at asset component level and allocation of depreciation to various departments, cost centres, projects within the general ledger.

The Solution **should** allow Nil depreciation i.e. suppression of depreciation calculation for specific assets (subject to approval).

The Solution **should** provide flexibility to control depreciation in the period of acquisition and disposal e.g. nil, partial or full.

The Solution **should** allow for review, amend and re-calculate depreciation prior to posting too FAR and G/L.

The Solution **should** allow multiple depreciation forecasts e.g. for the current year, the next 12 months, or future budget / accounting years.

The Solution **could** allow flexible depreciation forecast amendments e.g. for new capital additions, disposals, revaluations, "what-if" calculations.

3.4.4.5. Disposal

The Solution **should** allow write off/reinstatement of asset subject to workflow review/approval.

3.4.4.6. Monitoring and Reporting

The Solution **should** provide a suite of standard fixed asset reports including:
• Summaries, classes, categories, groups and individual asset details e.g. net book values, lives, depreciation bases, cumulative depreciation, residual value, costs, gains / losses on disposal;
• Assets list, including details by category and ageing for certain categories (held for sale, under construction);
• Asset disclosures for dual reporting;
• Assets fully depreciated; and
• Revaluations, etc.

The Solution **should** provide monitoring reports of all approval stages with corresponding ageing.

3.4.4.7. Period End Processing

The Solution **should** have functionality to hold costs, valuations and depreciation by asset and in total - brought forward, additions, charges, disposals, revaluations, reclassifications and carried forward at period end.

The Solution **should** provide automatic reconciliation of G/L account to FAR and monthly/yearly depreciation charge.

3.4.5. Cash Management

3.4.5.1. Bank Accounts

Cash management is carried out currently on a daily basis. Cash transactions are posted into Sage for three separate bank accounts. We may need to ring-fence funds relating to grants and third party monies in the future.

- RSSB
- CIRAS
- RDDS

There are also a number of deposit and interest bearing accounts held within the system. The replacement system **must** support the ability to hold bank ledgers for multiple bank accounts. The finance team must have the ability to change the details stored against them.

The Solution **should** have functionality to amend bank accounts (subject to authorisation).

RSSB require the solution to support Bank accounts in foreign currencies.

The Solution **could** include multiple fraud protection and bank account controls e.g.:

- Signatures/authorisation levels;
- Maximum value transactions;
- Alerts and reports for potential duplicate payments, series of payments of similar values, or to same payee, etc.…

3.4.5.2. Transactions

RSSB Operate a standard general ledger transaction process. The current system does allow a multi-currency environment and provides multiple ledgers that feed directly into the general ledger,

The Solution **should** support multi-currency receipts and payments (low volume of foreign currency transactions).

The Solution **should** have functionality to process receipts and payments automatically from posting to accounts receivable, accounts payable, payroll as well as non-recurring transactions (Receipt of grants, etc.).

The Solution **should** support multiple methods of cash receipt and payments e.g. EFT, RFT, BACS, cheque, DD run, etc.

The Solution **should** support remittance advice linked to cash receipts.

3.4.5.3. Electronic Banking

There **must** be the ability within the Solution to export a BACS file to a flat file format (CSV) for manually uploading to the relevant Banks BACS portal.

This file **must** be fully configurable should the file format change, or if an additional format is required.

The system **should** support the ability to product multiple BACS formats based on the bank account where a payment is being produced from.

There are three bank accounts that require separate import file formats for statement imports based on the bank account that has been selected on the statement.
The bank formats that require importing are:

- RSSD Bank (HSBCNet)
- RSSB Bank (HSBCNet)
- CIRAS Bank (HSBCNet)

The solution **should** support the ability for a user (with appropriate permissions) to modify and create new bank templates using an intuitive tool within the system.

The Solution **could** support alerts for timing of file approvals (e.g. user is alerted of coming deadlines for payments to be processed by the bank by a certain day.

The Solution **should** support return data feed from banking platform and support process for unsuccessful payments/payments returned by bank.

The Solution **should** support funds transfer within the organisation e.g. multiple RSSB bank accounts and investment/money market activities.

3.4.5.4. Bank Reconciliation

Currently there is basic functionality in Sage 1000 for reconciling the Bank Ledger. RSSB Require the ability to carry out full Bank reconciliation with statement import and automatic matching functionality.

The Solution **should** support multiple input for bank statement details via automatic, scheduled data feed, download from bank or manually keying in.

The Solution **should** support multiple bank statement formats and enable compatible data feed with all major UK banks.

The Solution **should** have user defined reference number, date and description of statement received.

The Solution **should** support real time access to bank account details and transactions.

The Solution **should** provide automatic bank reconciliation (matching cash book items by date and amount, or using user defined rules) with multiple match status and workflow process to distribute the tasks relating to reconciling items.

The Solution **should** include alerts for rejected or to be investigated items.

The Solution **should** allow manual reconciliation.

The solution will need to handle the importing of around 2000 cash receipts a year, with the bulk of the receipts coming in a three-month period when memberships are due.

The solution **must** support the ability to upload cash receipt transactions to a journal.

3.4.5.5. Monitoring and Reporting

The finance team would like to see a suite of appropriate reports that can assist with the purchase to pay process and provide information that will all the team to highlight any areas where key performance metrics aren't being hit, bottlenecks in the approval process or the effects of purchases on cash flow.

The Solution **should** include a full suite of reports and enquiry screens for:

- Opening/closing balances by account, summary for all accounts;
- Monitoring credit limits and credit facilities;
- Activity levels by type of receipts or payments;
- Facilitate cash flow projections, including scenarios with all future billings/receipts and payments in the system;
- Reconciliation status by account, ageing of reconciling items; and
- Alerts outstanding and progression.

3.4.6. Billing / Accounts Receivable

3.4.6.1. Customer Setup

RSSB require the ability to hold customer master data within the finance system. The customer master record **must** be flexible and hold the standard customer data that would be expected in a finance system.

The Solution **must** house the ability to create custom attributes against the customer tables for storing specific customer attributes, these may be used in filtering & reporting functions.

The Solution **should** support creation of new customer's subject to workflow approvals and allowing credit and other checks.

The Solution **could** have the ability to manage customers that merge and keep the history - or link historical separate accounts to a new account for a merged entity.

The Solution **should** support multiple associations of customers (parent/child, related companies e.g. CIRAS).

The Solution **should** have search facility of customer records and validation checks for duplicate customers, particularly when creating a new customer.

The Solution **should** provide configurable analysis codes for customer type analysis / classification; codes for status: active, inactive, credit hold.

The Solution **should** support flexible payment terms, by customer, customer type, group or ledger.

3.4.6.2. Invoicing

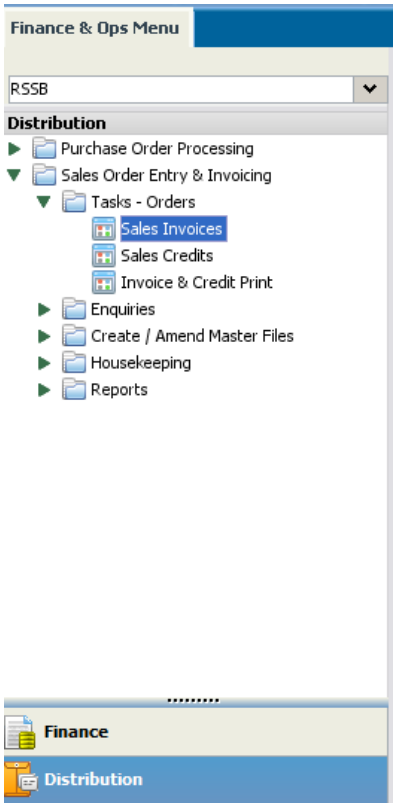
RSSB have a number of functions that involve sales invoices being created. The sales invoices are often generated by the finance team to ensure nominal coding is correct and that posting dates are set correctly etc.

The Current Sales Invoice Creation process in Sage is detailed Below:

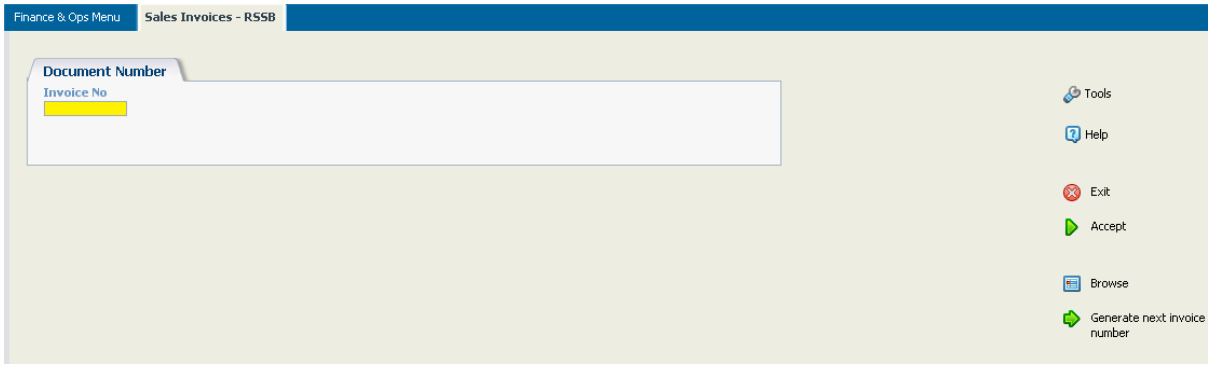
Processing Sales Invoices

Enter details → Print invoice batch → Print batch header → Batch signed off → Post batch → Issue invoices → Batch header → File

Distribution>Sales Order Entry & Invoicing → Tasks-Orders →Sales Invoices

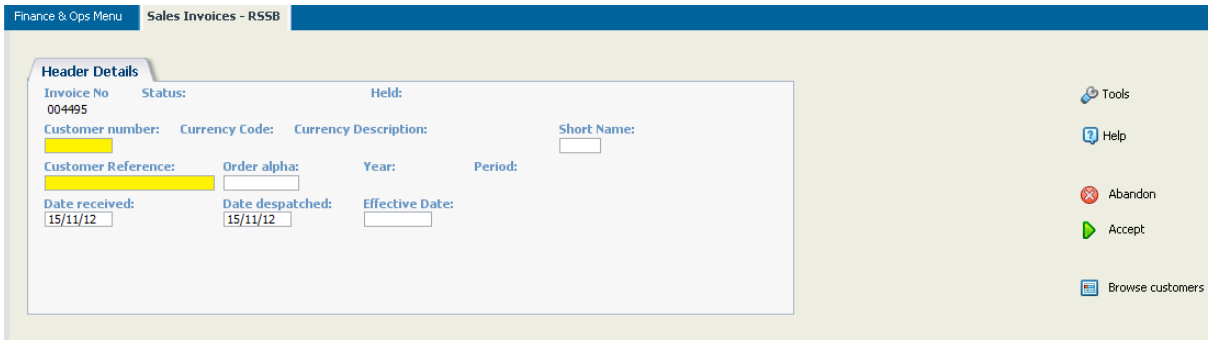


F6 →Create a new invoice
F2 → Search for an invoice already processed

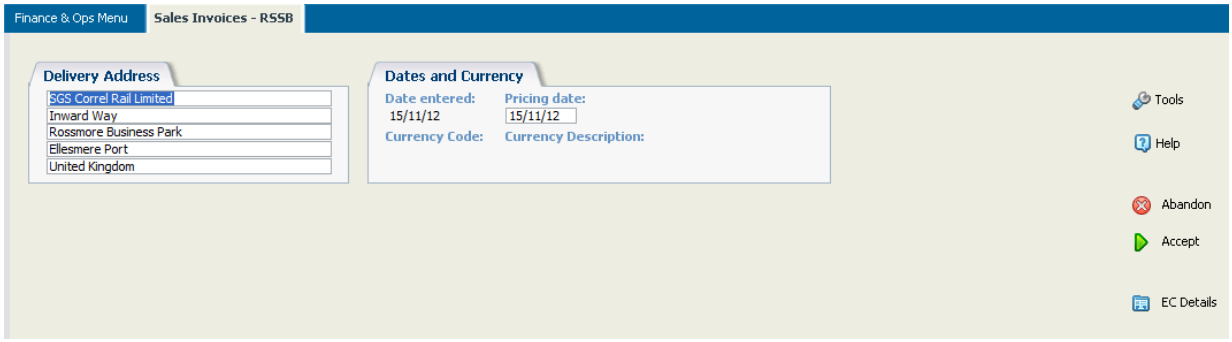


Customer Reference → Either Purchase Order number or Credit Card/Cheque details

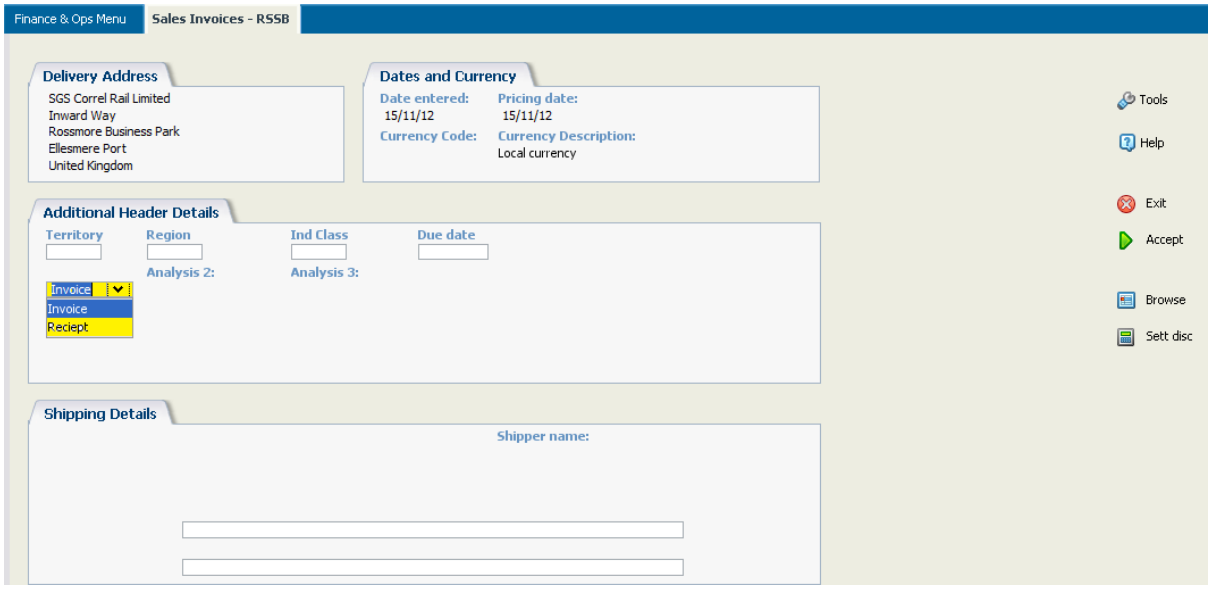
Customer Number → F2 to search customer



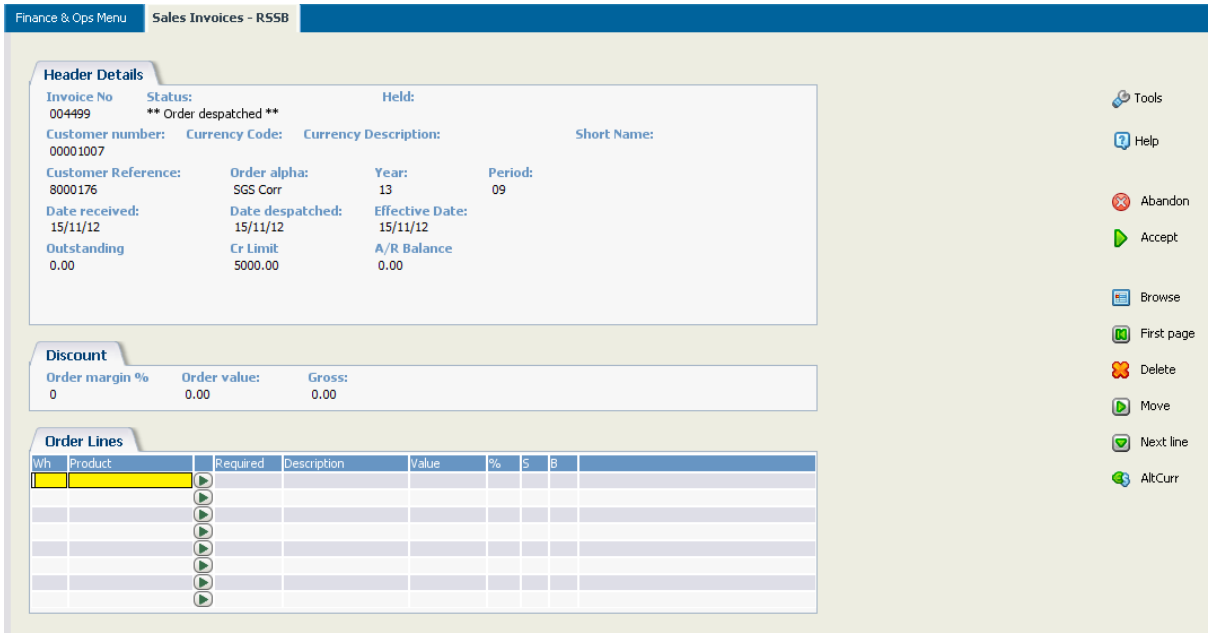
Display of customer details

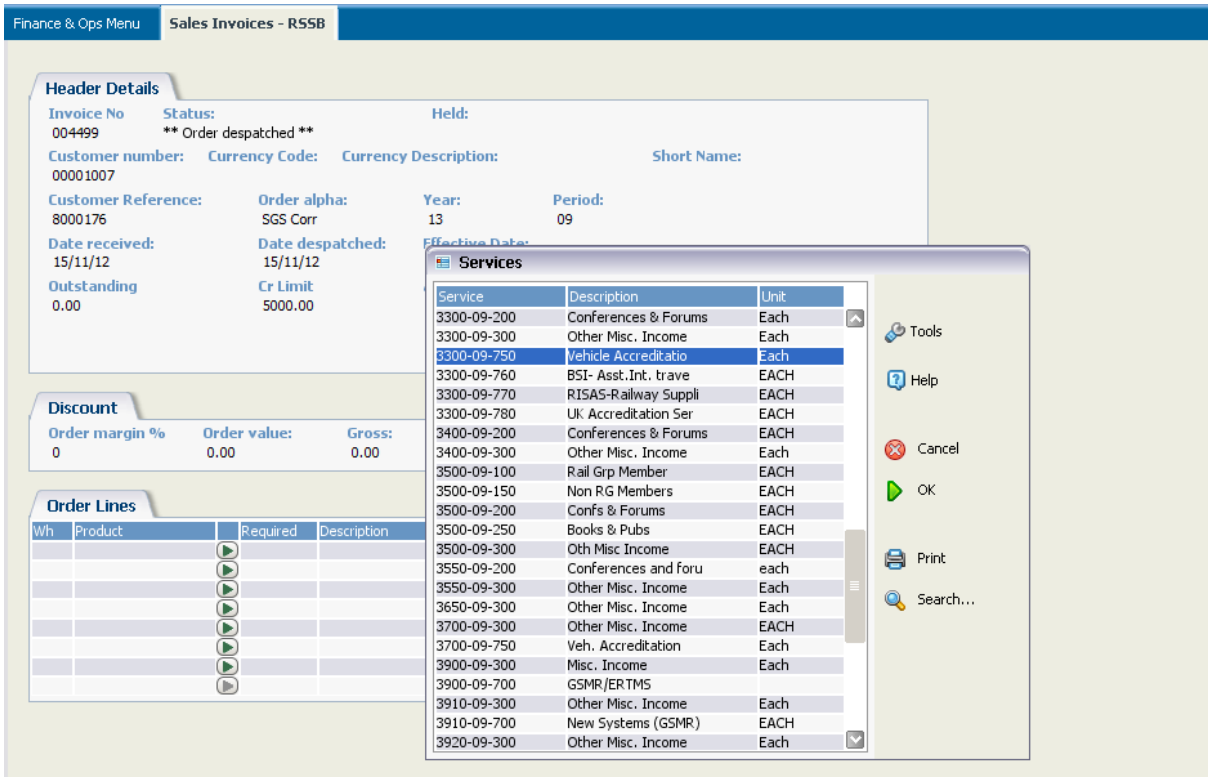


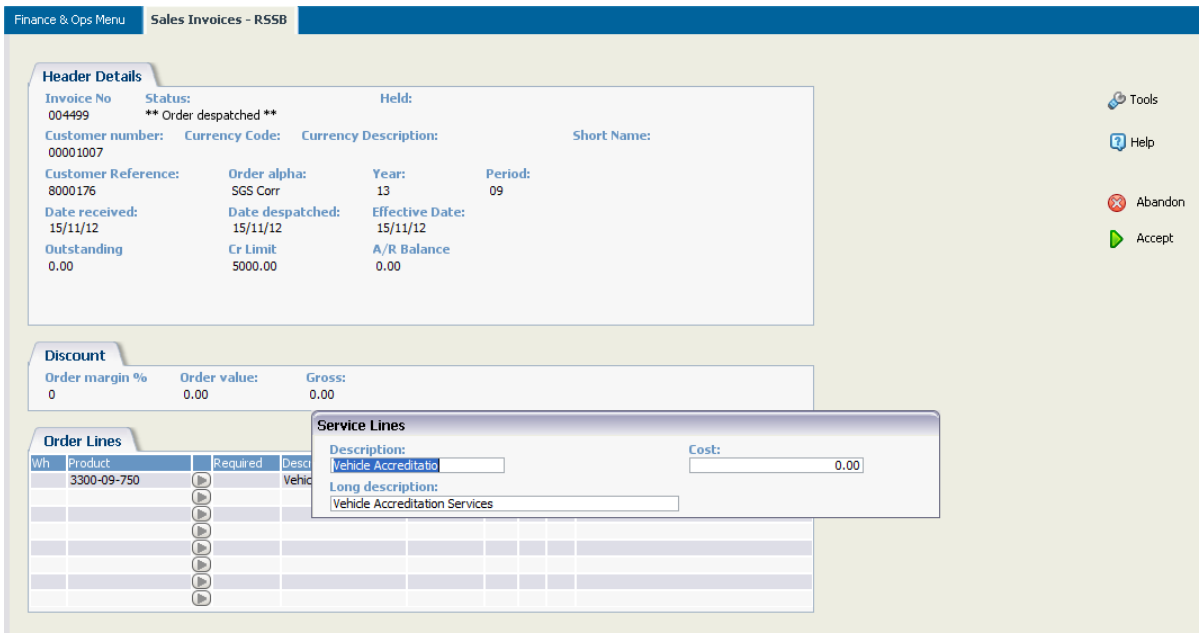
Drop down to select invoice or receipt



F2 → Services → Posting code



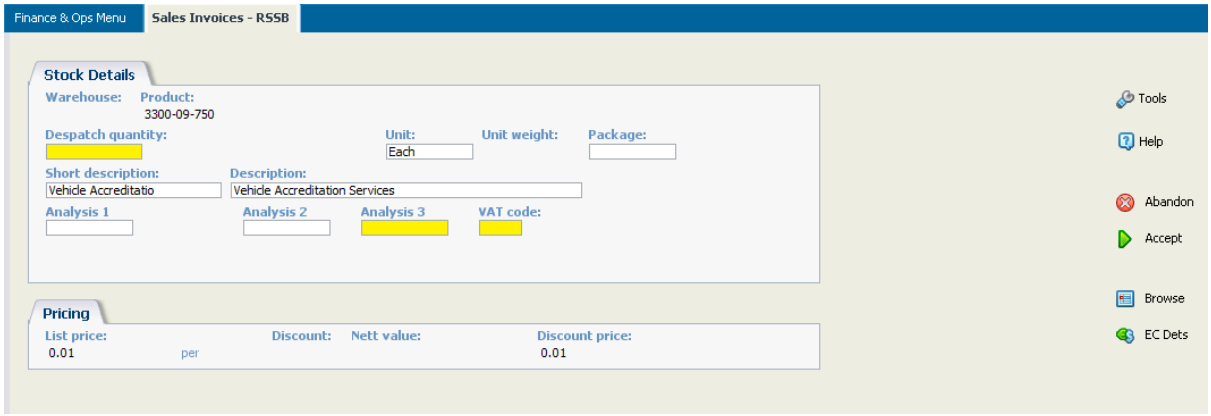




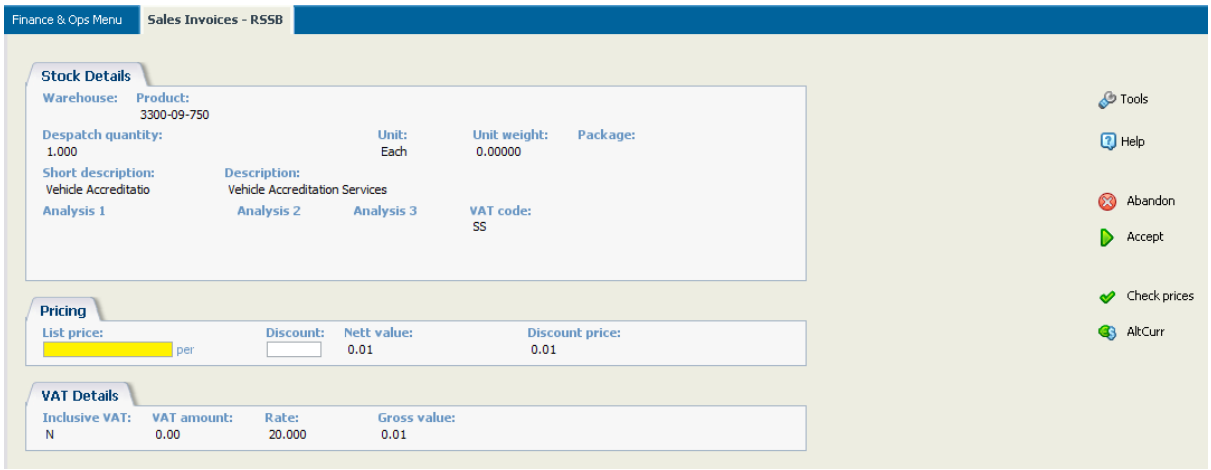
Enter Dispatch Quantity – Enter 1

Analysis 3 → F2 to select project code where applicable

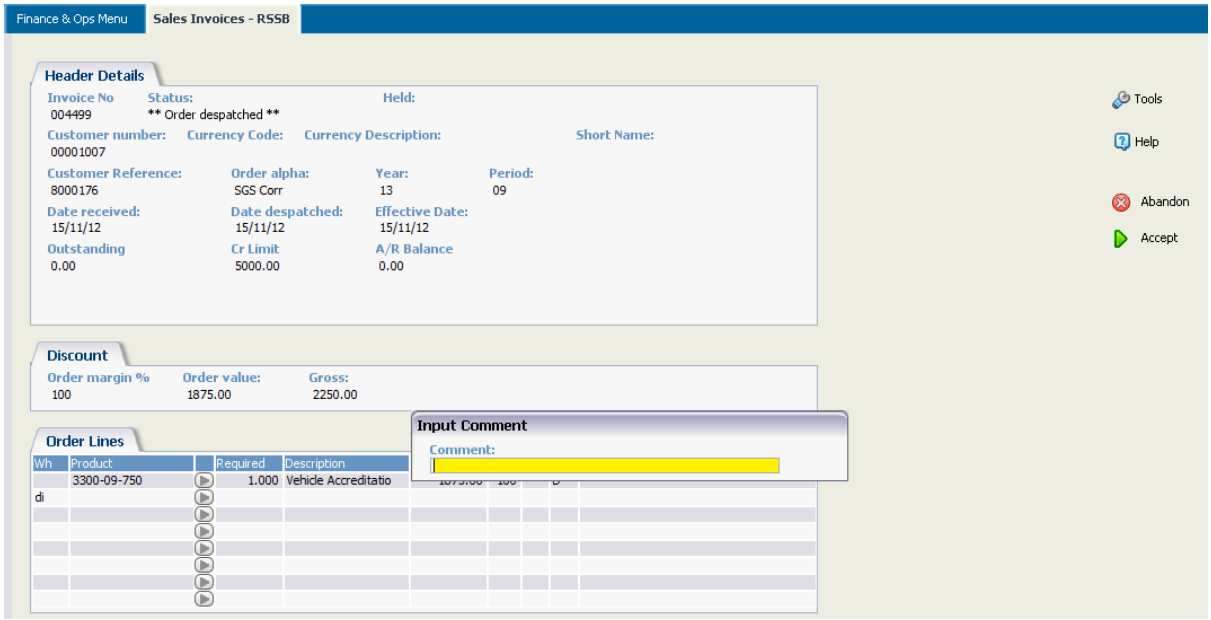
VAT Code → Either SS for Standard, SZ for Zero Rate

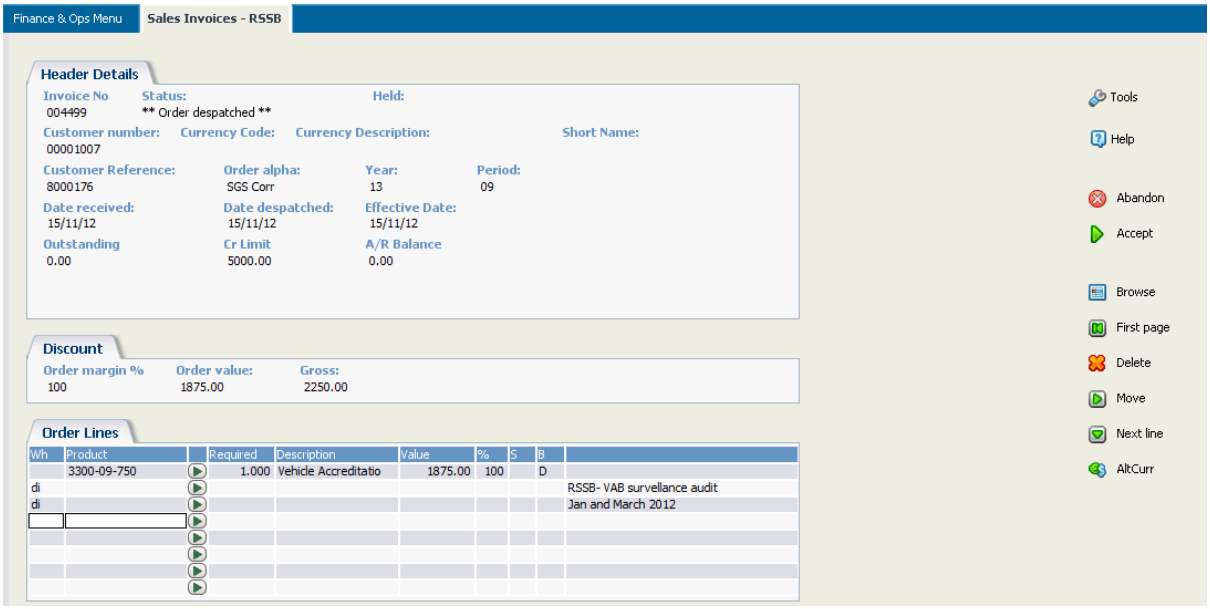


List price → net value of invoice



Di → enter invoice description





Enter to Complete and Escape.

The solution **must** allow a simple and intuitive entry of a Sales invoice, capturing the correct customer and line detail information that is required by a flexible billing engine.

The Solution **should** allow this to be controlled by allowing a sales requisition / order to be created within the finance system. Once a sales order has been created a flexible approval workflow **should** be generated to allow the relevant members of the finance team, or management to approve orders before they should be released for invoicing.

Once an order is released for invoicing, the system **must** allow an invoice to be easily created from an order. This order **should** be able to create & post a sales invoice without the requirement for double entry.

The Solution **should** support manual invoice creation for non-recurring items.

The Solution **should** provide a flexible billing platform to provide consolidated billing when one customer has purchased multiple levies/services and wishes to receive a consolidated invoice.

The Solution **should** support different charge type on same invoice (Membership Levies, one off reactive work, time and materials, agreed rates, service charge, cost recovery, etc.).

The Solution **should** provide functionality to raise multiple invoices from a single "sales order" or contract record (regular billing of levies or any other services).

The Solution **should** allow attachments/schedules prior to invoice being issued.

The Solution **should** automatically update all ledgers and customers' accounts.

3.4.6.3. Credit Notes

RSSB Have a requirement to issue credit notes through the finance system. Credit notes can be issued for a number of reasons and **must** be handled by the solution.

The Solution **should** have functionality to issue credit notes for part, whole or multiple invoice refunds/amendments.

The Solution **should** have functionality to link credit notes to original invoice with flexibility to issue credit notes without linking.

The Solution **should** have functionality to approve credit notes via workflow process.

The Solution **should** have a process for credit and re-bills with user defined reason codes.

3.4.6.4. Payment Receipts / Allocations

Cash is posted through a journal (for CIRAS only) and there are a number of various screens and processes that have to be worked through to carry out this function. The solution **must** ensure that the Cash Receipt and Payment process can be carried out in an efficient and intuitive way.

The cash receipt and payment mechanism **should** have the ability to suggest payments and receipts based on a number of parameters.

The Solution **should** support all payment receipt method including receipts via electronic exchange of data with all major UK banks.

The Solution **should** support automated application of cash receipts from bank data to invoice details on customer accounts (and with batch matching). Ability to apply receipts manually when required.

The Solution **should** have functionality to process direct debit payments.

The Solution **should** have functionality to post payments to accounts receivable on receipt and allocate later, where necessary (or to customer a/c and apply later where necessary).

The Solution **should** have functionality to un-post or transfer miss-posted receipts.

The Solution **should** have automatic reconciliation of payments keyed in, to payments receipts.

The Solution **should** provide flexible, automated invoice matching (e.g. from remittance advice, by oldest invoice, by invoice type, or other configurable matching routine).

The Solution **should** have functionality to apply part payments to line item on the invoice and flag part payments as queries.

The Solution **should** support configurable matching tolerances and automatic write off if within tolerance amount(s) and reporting for follow-up.

The Solution **should** support manual invoice / payment matching.

The Solution **should** support multiple invoices settled with a single payment.

3.4.6.5. Credit Control

Credit control for RSSB and RDDS is carried out by the RSSB finance team and it is understood that there aren't any known complexities in the process. The CIRAS team carry out credit control for their own members.

The Solution **should** have functionality to provide full access to all or specific customer and invoicing information, subject to security and access levels.

The Solution **should** support flexible credit terms at individual or customer group level.

The Solution **should** have functionality to give automatic credit alert when customer or group customer, is near or over credit limit.

The Solution **should** have functionality to permit temporary credit increase available (subject to authorisation/security levels).

The Solution **should** support multiple debt chasing methods.

The Solution **should** have fully configurable dunning letter process (content, frequency, customer inclusion or not and trigger dates).

The Solution **should** have functionality for customer statements on a particular date and available on an account basis and account / group basis.

The Solution **should** have functionality to be able to review statements prior to issuing.

The Solution **should** provide stop feature for invoice / account in query, flag invoice / account and stop future orders.

The Solution **should** have functionality to assign invoice to external debt collection agents.

The Solution **should** support part / whole invoice or account write-off, subject to authorisation.

The Solution **should** have functionality to support user defined reason codes and descriptive field for write-off notes.

3.4.6.6. Collections

The collection process is carried out by the RSSB finance team. The team require a flexible and intuitive dashboard and workflows to ensure the efficient processing of collections with adequate reporting to support.

The Solution **should** support automation of collection process and routing of escalations with flexibility to change the points of escalation.

The Solution **should** support bespoke credit control triggers and user defined prompt for credit controllers, based on list of customers, amounts, ageing, type of charges, etc.

The Solution **should** have functionality to provide credit control/collection teams with full access to customer accounts, activity and ability to drill down into transactions to lowest level of details held in the system.

The Solution **should** provide flexible reporting to allow design and production of dashboard at individual credit control staff level.

The Solution **should** provide query management diary, with unique reference numbers, status, dates, reminders, menu with multiple query type for credit control to report and escalation of queries until closure.

The Solution **should** hold multiple invoice query and debt collection telephone and email scripts for collection activities.

The Solution **should** hold multiple invoice query and debt collection telephone and email scripts for collection activities.

The Solution **should** provide free format text for users to add their own comments and notes.

The Solution **should** provide flexible receivables payment forecasting e.g. predicted cash to be received next day, week etc., based on due dates, amounts outstanding, latest contact with customer

The Solution **should** include standard enquiries and reports e.g. showing number and age of outstanding queries.

The Solution **should** have functionality to flag customer or invoice queries, so all other users can view issues and update where required

The Solution **could** allow customer access via internet: user defined AR functionality and data that may be securely accessed by external customers over the internet.

The Solution **could** have functionality to allow system users a view of detailed customer transactions e.g. new invoices, outstanding and paid invoices, credit notes, payments.

The Solution **could** allow Customer to update their master data via internet subject to review and validation prior to update to customer master file.

The Solution **could** allow customer payments via the internet.

When a cash receipt is processed, the solution **should** automatically close fully paid invoices.

3.4.6.7. Period End Processing

The Solution **should** include configurable end of period processing routines and authorisation.

The Solution **should** support automatic configurable calculation of provision for bad debt based on policy requirements.

The Solution **should** flag doubtful debts outside policy for provisioning at period end.

The Solution **should** include automatic calculation of revenue recognition and month-end accruals (postings to G/L subject to review/authorisation).

The Solution **should** include validation checks /automatic reconciliation of ledgers to sub-ledgers.

3.4.6.8. Monitoring and Reporting

The Solution **should** include a full suite of reports and monitoring tool:

- A/R ageing by buckets, customer categories, individual invoices, etc.;
- Monitoring of activities in all steps of the invoicing and A/R process (w/off activity by customer type, credit note activity, credit increases, promise to pay by dates, etc.;
- Cash receipts, unallocated cash, unapplied cash outstanding, etc.; and queries, query resolution ageing.

3.4.7. Accounts Payable

RSSB Accounts Payable is fed by various areas of the business. Purchase Requisitions and billing information comes from Procurement, Research, Standards and Innovation.

The specific procurement information is covered in the procurement section of this document but this section will cover the finance specific requirements.

3.4.7.1. Transactions

The Solution **should** allow capture of full details for invoices e.g. supplier invoice number (at least 20 characters), order reference, multiple line items and costs, free format description (allow for enough characters), net total, VAT and gross total, payment due dates.

The Solution **should** support automatic coding of invoices based on requisition/PO coding.

3.4.7.2. Proforma

RSSB have suppliers that require payment up front on a proforma basis. The solution **must** provide the ability to raise and process a proforma invoice before goods can be received.

The solution **should** be able to allow a user to specify on a supplier by supplier basis, a percentage of value that is required for prepayment before goods can be received.

3.4.7.3. Prepayments

The solution **must** provide standard accounting Prepayments and Forward Posting functionality.

3.4.7.4. Electronic Payables

Due to the low volume of purchase invoices received by RSSB, the solution could provide OCR functionality as an optional piece of functionality that could be utilised if it was available but document scanning is essential.

The solution **could** support the scanning, OCR and attaching of purchase invoices within the application.

The solution **should** allow a document to be attached to the document created by the OCR system.

The Solution **could** provide configurable workflow and authorisation rules to automatically route invoices for review / authorisation / payment. Each workflow being based on the cost code where the expenditure is charged.

Payment Types

RSSB use a number of payment types. The creation of Payment Methods **must** be configurable by the user, enabling payments made by different methods to record to user defined nominal ledger codes.

This table is referenced from the finance payment guide:

INFORMATION AS SEEN BY PROCUREMENT	INFORMATION AS SEEN BY FINANCE	WHEN USED
Cheque	C = for all foreign suppliers – drop down selection is cheque	Select this option for all suppliers who will be paid in foreign currency. Funds will be transferred although the heading states "Cheque".
Manual	Not certain	Do not use. The manual option relates to a handwritten cheque only.
Bank transfer	R = Direct debit payments	Not certain what field this is but suspect it may possibly be "Bank Transfer". Bianca states she would prefer if this selection is not used as she cannot print a payment report for 'R' suppliers) please use 'T' and not 'R'
BACS	B = BACS payment	The usual standard method of payment for all UK suppliers
PMGO		Do not use. This is for Pay Masters Generals Office payments.
Transfer payment	T = Direct debit payments	This will be used for suppliers who will be paid regularly by direct debit e.g. utilities, water etc.

3.4.7.5. Data Entry

The Solution **should** support allocation of different invoice lines to multiple charge codes.

The Solution **should** provide for recording multiple dates e.g.: date invoice received, the invoice date, payment due date, the date or period which the invoice relates to for allocation of cost to correct accounting period (automatic recognition of prepayments with start & finish date).

The Solution **should** provide configurable rules for prepayments for certain types of expense and automatic accounting entries.

The Solution **should** support workflow authorisation for invoices and credit notes with user defined authorisation structures and routing.

The Solution **should** support flexible matching of credit notes with supplier invoices. Functionality to offset credit notes against invoice recorded on the supplier account so that invoices which have been credited by the supplier do not go into the payment cycle.

The Solution **should** support multiple, configurable validation routines and mandatory field checks.

The Solution **must** have functionality to configure VAT treatment on supplier invoices.

The Solution **should** support user defined invoice order matching tolerances (multiple tolerances for different suppliers).

The Solution **should** support restriction of access to coding cost transactions based on user access/profiles (for example defined roles associated with user profiles and only certain roles having access to code against certain categories).

3.4.7.6. Invoice Matching

The Solution **should** support automated matching of invoices with purchase orders and goods receipt.

The Solution **should** support workflow follow-up of outstanding goods receipt as part of invoice entry.

The Solution **should** provide functionality for monitoring and reporting of invoices received without good receipt.

The Solution **should** support multiple, configurable 'automated matching' rules and tolerances.

The Solution **should** provide flexibility to move invoices from "non-P0" to PO with ability for users to choose correct PO.

The Solution **should** provide functionality for disputed invoice e.g. invoice flagged / placed on hold, or stop all payments to supplier.

3.4.7.7. Payment Process

The payment process within RSSB is considered to be a standard process with no unusual complications. The RSSB Payment process is currently carried out as follows:

- Arrange meeting with a senior member for the Friday of the payment run week (in advance)
- Tuesday of that week send authorisation slip reminder email chasing all un-authorised invoices. Give them until 13:00 on the Thursday of the week to return authorisation slips. Template for email sent to requesters
- Thursday afternoon review aged creditors at 13:00 – checking all invoices with ‘R’ as this means ‘unauthorised’. Email/phone authorisers if the invoice is due for payment and cannot wait for next run

- Print payment reports: B (for BACS), C (for suppliers outside UK), T (for direct debit suppliers) (instructions to do this are below)

- Cross check payment reports with aged creditors (to see that all authorised invoices actually appear on the payment reports)

- The team creates a report to accompany payment report for meeting with CEO

- A paper BACS Authorisation Form is produced to be signed by the person creating the payment run and the relevant approvers.

- The payment run is reviewed at a meeting, and supporting documentation (Print outs of invoices may be required.

- Payment File created rom Sage which is subsequently uploaded to the bank.

- Once approved by HSBC then release batch in SAGE as below so journals will post and the invoice will now show as paid in SAGE transaction screen.

- File in Payment register file

RSSB would like to reduce the amount of printed paperwork and manual processes that currently exist around the payment process. It **should** be simple for the payment processor and approvers to review, approve and process the payments.

The solution **must** have the ability to generate an CSV format file in a format that can be specified simply by a user to be exported for BACS use.

The Solution **should** have separate, additional authorisation process for the payment file to be uploaded to the banking platform.

The Solution **should** support multiple payment methods e.g.: Electronic Funds Transfer (EFT), RFT, SWIFT, direct debit, standing order, and cheque.

There is an invoice log process that exists, that logs the workflow around the invoice process. It updates the invoice status at various stages of the workflow, these stages are:

- Invoice processed
- Invoice Approval
- Payment Sent to Bank
- Payment is Registered.

The solution **should** allow the invoice status to be updated at each stage of the purchase to pay process.

The Solution **should** provide configurable payment authorisation processes.

The Solution **should** have functionality for automatic creation of payment schedules e.g. based upon invoice due dates, three-way match, and other user defined categories.

The Solution **should** have functionality to review, amend, include or exclude items and change payment dates.

The Solution **should** provide flexibility to run payment schedule at any time.

The Solution **should** have validation checks to prevent double payments.

The Solution **should** have flexibility to stop payment run / individual supplier payment, subject to authorisation.

The Solution **should** have remittance advice functionality

The Solution **should** provide automatic update of all ledgers and supplier accounts after payment has been processed.

3.4.7.8. Reporting

The Solution **should** provide a full suite of reports and monitoring tools to show transactions in each stage of the Purchase to Pay process (by users, ageing, etc.), configurable with ability to run on any day of the month:

- Supplier ageing;
- unmatched invoices;
- invoices at all stages of the workflow approval process;
- supplier master file listings, active/inactive;
- disputed invoices;
- credit limits, available credit;
- credit notes;
- payments listings;
- etc.

3.4.7.9. Period End Process

The Solution **should** provide configurable end of period processing routines and authorisation.

The Solution **should** have functionality to calculate and (after review / authorisation) post accruals and prepayments.

The Solution **should** have functionality for automatic reversal of accruals following month with recapture at next month-end if appropriate.

3.4.8. Budgets & Forecasting

3.4.8.1. Control Process

The Solution **should** support user defined budget creation, review and authorisation process.

The Solution **should** provide functionality to monitor and track budgets / forecasts through to completion (with different users each having to input a defined portion of the budget/forecast information) - Automated workflow cycle to manage the process with ability to report by user where they are in the completion cycle.

The Solution **should** include flexible security, to control or vary user access to data at different stages of the budget / forecast process with ability to lock/unlock budgets at different stages of approval. The Solution **should** provide configurable validation checks e.g. for imported data

The Solution **should** have functionality to record changes to each budget revision.

3.4.8.2. Types & Creation

The Solution **should** have functionality to hold multiple number of budgets, revised budgets, forecasts, rolling forecasts (held for past, present and future periods)

The Solution **should** support multiple types of budgets e.g. financial (P/L, B/SHOULD HAVE cash flow), statistical accounts, project, payroll, quarterly or yearly capital plans, weekly cash forecasts, etc.

The Solution **should** support budgets by grant.

The Solution **should** have functionality to hold budgets for different period of times (e.g. yearly budget, rolling forecasts, three-year plan, longer term strategic plan, etc.) and budgets calendared by user defined period.

The Solution **should** have the ability to hold budgets at different level of details as defined by user (e.g. 5-year plan at higher level than yearly budget/forecast).

The Solution **should** support zero based budgeting, what-ifs and scenario planning. Ability to use approved scenario as the budget/forecast against which performance is measured.

The Solution **should** have functionality to budget/forecast by ledger.

The Solution **should** have functionality to calculate budgets based on formulas/assumptions (e.g. x% increase in payroll costs, x number of new positions at defined levels, etc.).

The Solution **could** support automated budget / forecast creation based upon user defined criteria

The Solution **should** be able to import budget data from spreadsheets, databases, separate budgeting systems, or manually input.

The Solution **should** have functionality to be able to add comments and assumptions about budgeted / forecast items (record and track assumptions)

The Solution **should** support mass adjustments for all or specified account ranges e.g. % increases, uplifts, inflation, and incremental drift.

The Solution **should** support allocation methods in line with actual allocation methodology.

The Solution **should** support in year budget transfers between budget lines or department.

3.4.8.3. Reporting & Analysis

The Solution **should** provide full suite of budget / forecast analysis including:

- Trend analysis
- Cost categories (fixed, variable, direct, indirect, overhead, etc.)
- Allocations and recharges
- Statistical/memo accounts
- Report on performance against efficiency targets
- Comparisons to prior version of budget, forecast, prior period actual, etc. (with ability to record comments/narrative analysis)
- YTD vs full year forecast/budget and run-rate vs full year forecast/budget (remains to achieve)
- All reports and analysis available at company level, division, cost centre, or any combination, in summary and detail
- Budget phasing
- Budget / forecast reports available for profit and loss, balance sheet, cash flow

3.4.8.4. Projects

The Solution **should** support capital budgets/forecasts based on live project information plus configurable projections of future capital expenditure and disposals.

The Solution **should** support capex budgets to feed into cash flow and depreciation expenses.

The Solution **should** support additions, disposals, reliefs and revaluations by accounting period.

The Solution **should** have functionality to monitor commitments and spend against budgets.

The Solution **should** have functionality to monitor work-in-progress.

3.4.8.5. Cash Forecasts

The Solution **should** have functionality to forecast cash at any level of inflow and outflow (financing, grants, revenue, categories of expenditures, etc.) and for any period of time (weekly, monthly, quarterly)

The Solution **should** have functionality to record and track assumptions.

3.4.9. Taxation

3.4.9.1. VAT

The Solution **should** support full compliance with input and output UK VAT requirements.

The Solution **should** support compliance with EU VAT requirements.

The Solution **should** handle multiple input and output VAT codes/rates.

The Solution **should** support multiple types of sales (Resource, services, ad hoc billing) and purchases transactions.

The Solution **must** support billing to VAT exempt entities.

The Solution **should** automatically identify, pick up or calculate VAT information from Accounts Payable, Accounts Receivable, General Ledger and other accounting modules.

The Solution **should** provide automatic calculation and production of VAT returns for review prior to filing.

The Solution **should** support electronic filing of VAT return, approved by HMRC.

The Solution **should** support electronic payment of VAT liabilities and refunds.

3.4.9.2. Reporting & Electronic Filings

The Solution **must** provide full suite of reports for preparation and analysis of VAT returns, corporation tax returns.

The Solution **must** have functionality to provide HMRC documentation in approved format including end of year reports and audit trail of HMRC submissions.

The Solution **should** support electronic filing of returns to HMRC (HM Revenue and Customs) for corporation tax and VAT using a HMRC tested and approved e-filing system.

4. Human Resources

4.1. Overview

The Human resources team within RSSB handle all HR matters related to employees, health and safety, training, contracts & documentation.

RSSB has around 300 employees that work primarily within the same floor within the RSSB Head Office in Moorgate.

The requirement for the HR Software replacement is considered to cover standard requirements that would be found in any industry standard software.

4.2. Current Solution

The Human resource team currently utilise a system called HR Pro. HR Pro consists of core functionality including:

- Employee Record
- Absence Register
- Holiday Planner
- Document Management

There is also a self-service employee portal that allows staff to log in and access/update their information. The self-service portal is available as part of the RSSB intranet.

4.3. User Requirements

The table below breaks down user and employee metrics for licence pricing and implementation costs. The table is broken down into the following sections:

Section	Description
Full System Users	Full System users are raising & processing orders, carrying out posting activities and would spend most of their working day within the system
Light System Users	Light users are sporadic or basic users; they raise simple orders or make enquiries into the database for information. Light users have unlimited read only access but are limited to the write abilities.
Timesheet Users	Timesheet users who will only enter timesheets and do not fall into the Full or Light user category. Any Full or light users who produce timesheets should not be counted again
Reporting Users	Users who carry out advanced reporting or analytics functions within the team but don't access the ERP system.

Full System Users	System Light Users	Timesheet Users	Reporting Users

4.4. Solution Requirements

4.4.1. Employee Records

The solution **must** support the ability to hold an employee record, including basic data for reference and reporting purposes, including:

- Name
- Address
- Contact Details
- Next of Kin
- Employment/Termination Date
- Termination Reason
- Classification of permanent / contractor

The solution **should** provide the ability to create user defined attributes against an employee, with the ability to create a dynamic lookup table where options are required to be selected.

The solution **should** support a skills matrix to hold employee skills information.

The solution **could** support the ability to hold qualification information about an employee.

The solution **should** support management reports, including a length of service report for employees and diversity reports.

The solution **should** Link employee record to active directory

4.4.2. Absence & Holidays

The system **must** support a full sickness register with reason codes.

The system **should** have a full suite of reports that can be utilised to analyse absences, including frequency and reason statistics.

The system **must** support holiday planning functionality.

The system **should** have a full suite of reports that can be utilised to analyse holidays, including unused annual leave and reports for clashes of key staff.

The system **must** support the ability to record absence and holidays for flexible periods of time (Days, hours etc.)

The system **could** pass any absence / leave time directly to the timesheet system.

The system **must** support non-common working arrangements – e.g. compressed and/or part-time hours.

4.4.3. Recruitment

The system **should** support a document repository, and workflow for job applications. The workflow should track applications and for successful applicants, have the ability to create and employee record.

4.4.4. Document Management

The HR department hold a vast amount of documentation related to all aspects of HR, these would include appraisal reports and other sensitive information. The solution **must** support the ability to lock certain documentation down by authorisation levels.

The system **must** provide a document repository where documentation can be stored on a SharePoint portal but access through a view of the employee record in the ERP.

4.4.5. Employee - Self Service Portal

The solution **must** provide a web portal for access by employees. The web portal should allow employee information to be reviewed and edited, documentation to be submitted and retrieved and for reports to be run to inform an employee of remaining holidays, absence records etc.

5. Procurement

5.1. Overview

The procurement team are responsible for the purchasing of all assets and services within RSSB and CIRAS, and the reporting of performance and key metrics back to the business.

RSSB had previously engaged with a Sage Partner to provide an e-Requisitions module for Sage 1000 that would meet the requirements of the department but the project was never completed.

There is a CRM module in Sage that generates unique references for each procurement project to allow tenders, contracts and other key procurement documentation to be grouped by the same coding. The method of tracking projects this way was deemed too complicated and was never setup completely.

One of the key challenges with the current operations of the procurement team is lack of reporting flexibility across the procurement lifecycle at a detailed or line level. The team **should** be able to analyse what has been purchased by which department, from which supplier.

It is understood that the entire procurement process will be carried out within the new system.

The Current Process Flow for Procurement is attached below.

RSSB Procurement Process current v4.pdf

5.2. Current Solution

The procurement team are currently using a combination of Sage 1000, Microsoft Office and paperwork to carry out procurement functions.

Excel is used to product an Organisation Spend Analysis Report that is interrogated on a daily basis. This report has links to the existing database to obtain certain data.

5.3. Users Requirements

The table below breaks down user and employee metrics for licence pricing and implementation costs. The table is broken down into the following sections:

Section	Description
Full System Users	Full System users are raising & processing orders, carrying out posting activities and would spend most of their working day within the system
Light System Users	Light users are sporadic or basic users; they raise simple orders or make enquiries into the database for information. Light users have unlimited read only access but are limited to the write abilities.
Timesheet Users	Timesheet users who will only enter timesheets and do not fall into the Full or Light user category. Any Full or light users who produce timesheets should not be counted again
Reporting Users	Users who carry out advanced reporting or analytics functions within the team but don't access the ERP system.

Full System Users	System Light Users	Timesheet Users	Reporting Users

5.4. Solution Requirements

5.4.1. ESourcing

The solution **must** reduce the time spent and administrative activity undertaken by the team for all procurement activity. Costing savings will be used to improve the quality of procurement support to the business.

The solution **could** should support a license for all user types (internal and external) and ability to manage unlimited procurements.

The solution **must** provide system admin for certain Categories (account code) at different permission levels

The solution **should** provide transparency, security and an audit trail on all quotes, tenders, OJEU procurement, frameworks (including direct award or further competitions), and supplier communication for all contract values.

The solution **must** be able to send and receive documentation / emails allowing users to set timescales, deadlines.

The solution **should** have the capability to build Questionnaire I.e. Request for Information; market engagement etc. It could be a dynamic form.

The solution **should** have an Internal discussion area to work on tender documents

The solution **should** have project information that is generated from the programme/ job created by the requestor in various departments (Avoid retyping the project information)

The solution **should** provide an interface to enable procurement to publish to Contract Finder and OJEU – including amendments, Contract Award Notice etc. Highlight missing required fields as validation before you can submit notices.

The solution **should** validate against minimum timescales relative to each threshold for the process.

The solution **should** have the ability to receive questions at any stage of the procurement process from suppliers, retract any commercial information from the questions, anonymise and issue responses to all suppliers

The solution **should** run the tendering and evaluation process with various user's types and suppliers including uploading documents securely, and ability for evaluators to download documents

The solution **should** have separate functionality to run 'quick calls' for low value competitions – links to list of frameworks or contracts e.g. Send to all recruitment providers. Ability to analyse and update frameworks lists and contracts list.

The solution **should** have the ability to create bespoke evaluation criteria for the project. Each criteria may have a weighting and scores; or may be a PASS or FAIL score.

The solution **could** have the ability to message evaluators (internal and external) in discussion section linked to a specific tender

The solution **could** have the ability for evaluators to complete the evaluation, scores and provide reasoning for their scores.

The solution **should** show status of evaluators.

The solution **should** have the ability to pull evaluation information through to communicate scores as feedback to suppliers.

The solution **must** auto save info as it is entered into the field.

The solution **should** have the ability to Prepopulate fields with standard information.

The solution **should** allow assigning delegation can be done by the user themselves and system administrators.

The solution **should** prepopulate the contracts register with award information.

The solution **could** have a purchasing system module.

The solution **should** have a dashboard view of all procurement activities.

The solution **should** have the ability to run e-auctions.

5.4.2. Purchase Ordering & Procurement

5.4.2.1. Contact Management

From the very early stages and during the procurement process, there are engagements with suppliers. This takes the form of Supplier days where suppliers may be invited to information briefings or Q&A sessions with regards to the contract, or communications that are received.

The system **must** allow the procurement team to report on a specific tender or project and which supplier's tender for the procurement. The system **could** report on which stakeholders are engaged in the procurement.

The solution **should** provide dashboard views of all contracts activities.

The solution **should** have the ability to run and export reports.

5.4.2.2. Supplier Self Service

There are a number of functions where RSSB would like a supplier to be able to update their own information via a user friendly, intuitive and secure supplier portal.

The supplier **should** be able to update their general information, company details, address, financial details and bank details on a remote web site. The information **should** pass through an approval process before being entered into the procurement system.

The supplier portal **should** have a link to the eSourcing tool to allow suppliers to register interest for, update and submit bids through the portal. Any bids submitted should be securely stored (access based on user profile per tender) in the RSSB SharePoint site and have a link from the related tender in the procurement system

5.4.2.3. Request for Quotation

RSSB require request for quotation functionality to be held within the procurement system. The request for quotation **should** be produced from the project/tender screen within the procurement system and passed to a Word/Excel document or other flexible format that would allow a supplier to complete the documentation. The document **should** contain information from the procurement system already populated in the document to prevent the need for double entry of data.

Once the supplier has submitted the bid, they **should** be able to upload it to a supplier portal, upload a SharePoint site or via an email. The procurement software **must** be able to monitor these bids and automatically attach them to the relevant supplier and tender record in the procurement system.

The Solution **could** support automatic creation of RFQ's from requisitions, with manual amendment.

The Solution **should** have the ability to store/attach quotation details to PO's.

5.4.2.4. Supplier Setup

When a new supplier is engaged, a new supplier form is created and sent to Procurement. Procurement are the only team that are allowed to create new suppliers.

The procurement team will search for a supplier in the system to make sure it The system **must** provide an easy way to search for a supplier to see if it exists before creating a new supplier.

The system **must** support the following fields on the supplier:

Field Name	Comment	User Definable Options
Company Name		
Type	Prospect, member etc.	☒
Trading Status	Limited Company, Sole Trader, Etc.	☒
Status	Active, Registered, Approved, Supplier	
Source Field	Lookup Data	☒
Website	Text Field	
No. Employees		
Company Registration No.		
Supplier Category		☒
Supplier Sub Category		☒
Address Details	Building Name, Address 1, 2, 3, City, County, Postcode, Country Code	
Phone No.		
Personal Phone No.		
Email		
Personal Email		
Company Email		
Supplier Type	Finance, Operations, Sales	☒
Company Relation	RSSB, RDDS or CIRAS	☒
Bank Name		
Bank Account No.		
Sort Code	Should automatically add the hyphens if not present	
Branch Details		
IBAN		
BIC		
Currency		
Account VAT Type		
VAT Registration No.		

The system **should** be flexible in its support of attributes and hold a dynamic set up for holding Market Sector, Supplier Type, Capabilities, and company metrics (no. employees, turnover etc.).

The solution must have the ability to report on changes to the supplier record

5.4.2.5. Payment Types

The system **must** have the ability to setup flexible payment methods. These payment methods **must** provide functionality to provide workflow and control at payment journal stage.

BACS functionality **should** force a BACS payment to be electronically exported prior to a journal being posted.

The system **must** have the ability to block a set user, or group of users from creating a new supplier, and **should** have the ability to create an approval workflow that will allow a user with the correct permissions to enter a new supplier but for a member of the procurement team to be notified of the creation and request approval before the vendor is entered into the system.

The system **should** have the ability to provide an approval workflow process to notify the Procurement team of any amendments to the supplier record.

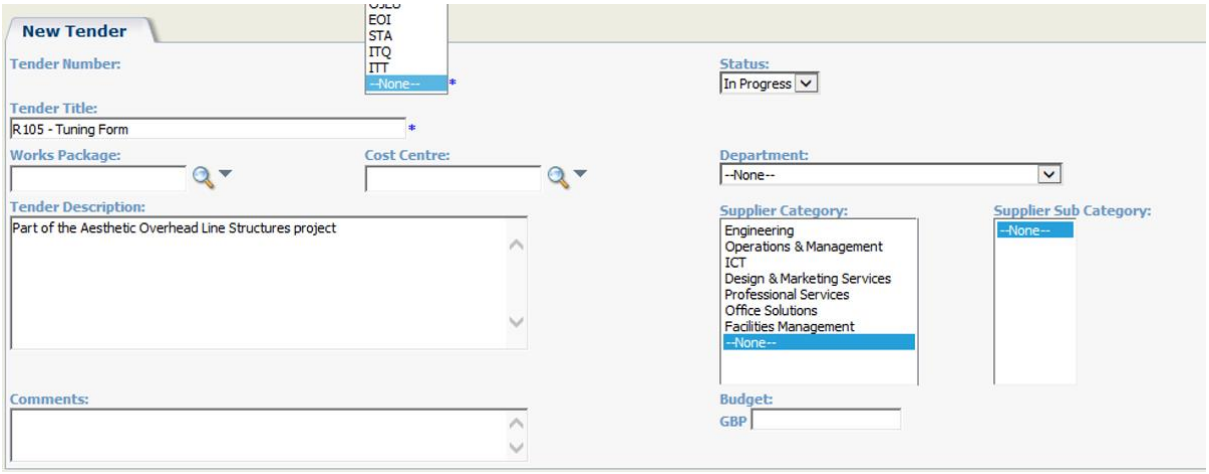
The solution **could** have the ability to handle invoices for a sundry supplier account, by passing the need to create a master record and follow the approval process in these cases.

There **must** be functionality to store multiple order addresses against a supplier.

When a supplier is created, the procurement team will run a credit check. The system **should** support integration to the Dun & Bradstreet API.

5.4.2.6. Projects

A project or Tender **must** be able to be stored in the new system. Tenders are created by the procurement team.



The solution **must** hold a tender with the following information:

Field Name	Comment	User Definable Options
Tender Title	Free Text	
Works Package		☒

Cost Centre	Financial Attribute/Dimension	
Department	Financial Attribute/Dimension	
Tender Description	Free Text (Large)	
Comments	Free Text (Large)	
Status	Should default to "**In Progress**"	☒
Supplier Category		☒
Supplier Sub Category		☒
Budget	Decimal Value	

5.4.2.7. Budgets

When creating a purchase requisition, the system **could** have the ability to have an initial approval workflow that would allow a requestor to check if budgetary approval has been received. Entering this step will prevent purchase requisitions from being put into place prior to funding sign off by the business for certain projects and removing additional administration tasks should approval not be received.

The system **must** allow a project budget to be created and maintained within, allowing control to be gained from the outset in the procurement lifecycle where Purchase requisitions will be unable to exceed budget and inform the requestor of the funds available to them, set by the specific tasks, or group of tasks that they will be working on.

5.4.2.8. Supplier Catalogue

The new procurement system **should** have the ability to hold supplier catalogues for internal employees to use for their own procurement.
The supplier catalogue **should** hold product references, descriptions and prices about products and services available from the supplier.

The system **could** integrate to 3rd party eProcurement systems for automatic population of supplier catalogues.

5.4.2.9. Requisitions

Currently there are issues with purchase orders where a purchasing budget is only available at a contract level and there are no controls over the budget at a product or task line level. The system **should** notify a user if the procurement of an item or service will take the project budget close or over the budget amount.

Currently when a purchase requisition is created. A paper document is created by the requestor and passed to the procurement team to pass through the approval process, where it is required to be signed off by multiple people within the business. The new system **must** have a flexible approval workflow that allows purchase requisitions to be placed on hold until approved by the correct person.

The paperwork is then passed back to the requestor where it is sent to the supplier.

The new solution **must** support the ability for a user to create purchase requisition. The purchase requisition **must** allow a simple and intuitive entry that will allow the user to select a service code

that will ensure when a purchase order, or invoice is created, the lines will map to the correct account code in the chart of accounts.

Purchase requisitions **must** allow the user the ability to enter multiple lines on one document. The lines **should** be flexible in whether they are product/service lines, General Ledger Account codes or free text fields.

The solution **could** support online purchase requisitions.

When carrying out a purchase order requisition, currently, the quantity is locked to one and the unit price has to become the value of the goods or services. The solution **must** support the ability to use a unit cost and quantity.

5.4.2.10. Contracts

RSSB Require the ability to hold contracts within their system, the solution **must** have a repository to store contracts. The contracts **could** be created directly from the system to allow certain data information to be prepopulated into a mail merge template to form the basis of the final contract and to prevent data entry errors and double entry time.

The system **could** support the ability for a supplier to digitally sign a contract and inform the system of the status of a contract to allow any workflow tasks to continue after this action has been taken.

During the procurement process, a large amount of documentation is created (Tender documents, RFP responses etc.) This documentation is stored in the RSSB SharePoint Portal but should be linked back to the record in the procurement system.

A contract **must** allow supporting documentation for the contract (Tender Documents, RFP Reponses etc.) against the record in the new system.

Fields on contract required are;

- Start date
- End date
- Notice period
- Lead times
- Ability to add custom fields.

5.4.2.11. Purchase Orders

RSSB will in some cases engage in the procurement of a product or services that can be called off over a period of time, but where the procured item or service can be attributed to multiple different projects. The system **should** have the functionality to create a framework of Call off orders which combine the orders together with a unique reference code. These orders, and their invoices **should** be able to be attributed towards multiple projects.

Purchase requestors **must** allow the user the ability to enter multiple lines on one document. The lines should be flexible in whether they are product/service lines, General Ledger Account codes or free text fields.

The same line on a purchase order **must** be able to be split by department or cost centre (or any other nominated reporting analysis code) to allow costs to be allocated to the correct departments in the business.

A purchase order line **must** support the ability to enter a project code. A purchase order **should** support multiple projects attached to the same document.

Large projects are often capitalised and in the case where a support for a year may need to have the costs accrued on a monthly basis, currently separate purchase orders would need to be raised to handle these accruals correctly. The new system **should** support the ability to setup accruals and prepayments for purchases on a single document, allowing a purchase of a yearly support service to be spread based on a manual, or automatic split between periods.

A purchase order **must** have the capability to attach terms and conditions to the document. This should be attached automatically when printing or emailing the purchase order to a supplier.

The Solution **should** be able to create PO's for annual values or budgets and "drawn down" via multiple goods/service receipts activities.

Within the existing systems, Purchase orders that are raised for either of the working groups where a Job/Project has been created, the purchase order must display the Work Package Number that will become a link to the project in the Smartcore IMS/RMS systems.

5.4.2.12. Employee Self Service

RSSB have a requirement for a self-service employee portal. The solution should provide an intuitive GUI that can be accessed remotely on a variety of devices that will allow the team to purchase items, from the correct suppliers, and track the process through the workflow,

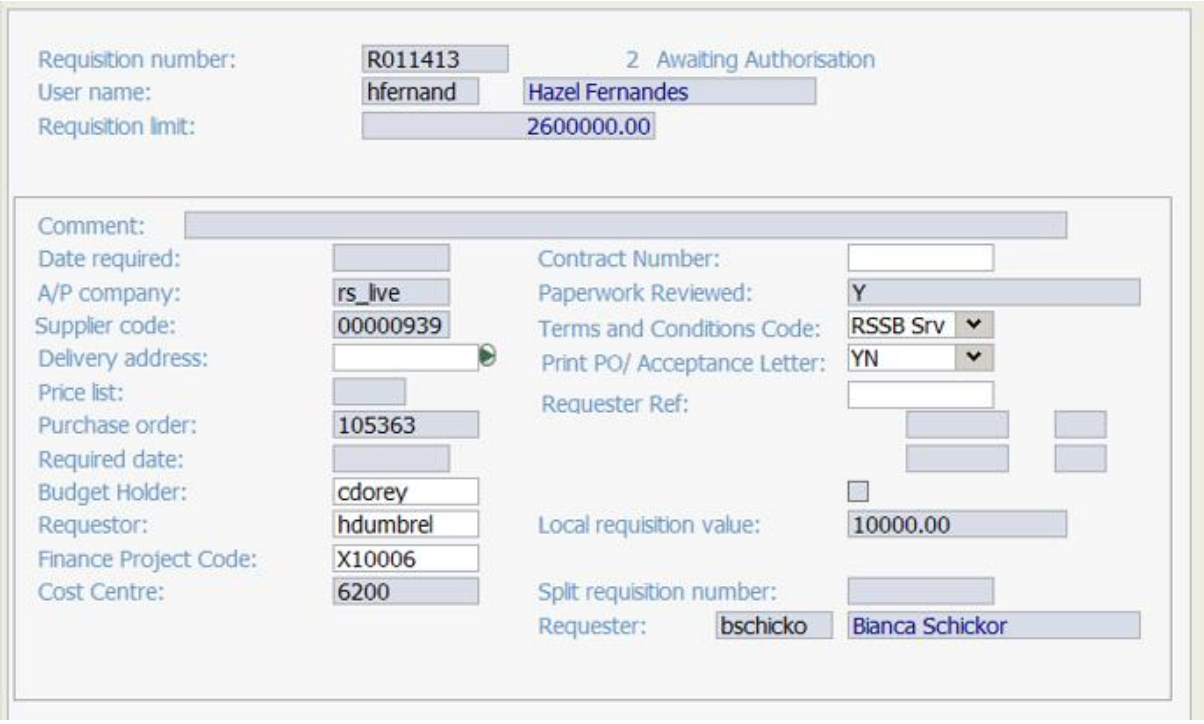
The solution:

The solution **should** allow employee to access, view, place order, purchase, track and receive items / services from approved supplier and approved catalogues.
The solution **should** provide easy to use online forms for ordering supplies.
The solution **should** provide automated processes for low value purchases within pre-defined limits.

5.4.2.13. Approvals

Currently the purchase approval process is manual and involves paper documents. This is causing mistakes to be made with key information, General Ledger coding, pricing, and delays or lost paperwork when being passed between departments in the business.

Once a paper requisition is received it is entered into the Sage system as a value authorisation. The user will create a new authorisation.



The requisition **must** capture the requisition limit for the user.

When the requisition no. is entered the information will be taken from the purchase order requisition. The information is checked against the paper copy of the purchase requisition.

The new system **must** alleviate the need for paper to be passed between the business. On the creation of a purchase quote or requisition, an approval workflow **must** be started before the document is created as a purchase order to then be processed by the relevant departments.

The user **should** have the ability to view a summary screen of all approval requests that they have submitted. The approver **should** have the ability to view a summary screen of all approval requests that they have received.

The system **must** support a flexible approval workflow. The workflow **must** house the ability to set up multiple approvers with different approval levels.

When an approver is out of the business, the system **must** allow for an “out of office” function where a delegate approver can be replaced for a temporary period.

The system **should** allow a flexible notification system for approvals, allowing a user to receive a notification via the software, or by email.

When a notification is received by email, the email **should** contain a PDF copy of the purchase document that requires approval. It should also contain a URL/Link that will pass the approver directly to the system screen where the approval action can be taken.

When a procurement is sent for approval, certain approvers are required to be provided a full view of the project, this would include Contracts, Purchase Documentation, Payment Schedules and other related documents. The system **should** allow a central view of this information, and could allow an easy way to print all related documentation to create an approval pack for an approver to review.

On approving a document, the system **must** record the date that the approval was carried out and record the user that carried out the proposal.

5.4.2.14. Workflows

The system **should** support a workflow to control and monitor the stages of the procurement process at each stage. This **must** be visible to the procurement users in an easy to understand, intuitive dashboard, providing a central view of all procurement projects and giving the users the ability to efficiently navigate from project to project.

The system **should** allow the user to attached documentation at each stage of the workflow process. The system **could** require the documentation to be attached before moving on to the next stage of the workflow process.

The current procurement process is embedded below.

Standard Operating Procedure Master.doc

Please can procurement provide the Visio process document from within the operating procedures in a PDF format to embed.

The requestor or approver **should** be able to intervene in the case of delays, holidays etc. and would require the ability to delegate, or reassign an approval. This process must end with a final finance approval stage.

The solution **must** require a rejection reason to be entered on approval rejections.

5.4.2.15. Goods/Service Receipting

GRNI accrual is done from purchase order, but is generate based on a user generated figure, there is not automatic goods receipting. GRNI and Goods Receipting **should** be a standard part of the new solution.

The Solution **should** have functionality to perform receipting against whole or part of purchase order or individual lines.

The Solution **should** allow items to be receipted with / without a purchase order.

Services and items **should** have a reference to the relevant job task line and should be able to be linked through for reference to insure that Purchase Order lines are coded to the correct Job. This will allow future reporting and analysis to be carried out on cost vs. budgets.

The Solution **should** support configurable tolerances e.g. for ordered versus received quantities.

The Solution **should** require minimal data entry e.g. accept goods if agrees with purchase order / only notify items that differ from purchase order.

The Solution **should** provide for free format text to record comments, notes, problems or any follow-up actions.

5.4.2.16. Invoicing and Payments

RSSB are currently in the process of implementing a purchasing card for use within the team. The system **should** fully integrate to the purchasing card API to allow automatic download a reconciliation of purchases made through the card to orders and invoices in the finance system.

5.4.2.17. Reporting & Analysis

The system **must** allow the ability to report on internal/external organisation spend by allowing a flexible self-service reporting tool that can enable the user to analyse Purchases by the following metrics:

- Product Type
- Service Type
- Supplier (Including Discounts, Preferred Supplier Status etc.)
- Internal Department

Further reporting is required to give an overview of the procurement status. The system **should** include a suite of user friendly, self-service dashboards that can provide information about the following metrics:

- Outstanding Purchase Values (By Supplier, Department, Project, Purchase Line Item)
- Year to Date Spend vs. Contract Budget
- Purchase Requisition Status/Lifecycle Status

Internal and External spend analysis – A requestor might not have any idea of the preferred suppliers, discount arrangements, existing spend / budgets, specific standards etc. This **should** information should be visible from a single point of reference through a dashboard or report.

Currently, it is not simple to carry out reports on data for previous years without support from elsewhere in the business or a third party. The system **must** hold historic data for a minimum of five years and allow a simple process for reporting on the historic data.

The Solution **should** provide a full list of reports to identify users/ageing of all transactions in the P2P process (outstanding requisitions, PO's, Good receipts, Accruals amounts, by type of purchase, cost centre, business area, etc.).

5.4.2.18. Integration

RSSB Utilise two online tools that are used to publish tenders. The system should have the flexibility to integrate to these two tools.

When a contract is created in the procurement system, the contract **should** be able to be created on the MyTenders (www.mytenders.org) and Contract Finder (www.contractfinder.co.uk).

This requirement is assuming the relevant websites have an API that can be utilised by the procurement system.

5.4.2.19. Data Migration

There is an excel spreadsheet with three years' historical data within it. This holds the project and purchase status updates and the historical data will be required to be brought into the procurement system for status reporting and historical analysis.

6. Timesheets

6.1. Overview

Timesheets are required from a wide selection of personnel within RSSB. Timesheets are recorded across the Research, Standards and Innovation Directorates and are used both to record the time of internal and contract/external resource.

Contractors are often used to fill short term resource, or skills gaps for project management, consultancy and training requirements and are expected to complete timesheets for time recording that can be used to match against contractor invoices.

RSSB Don't currently operate a timesheet approval process, this isn't a current procedure that is in place but may be a future requirement if the solution is capable.

The requirements within the business for timesheet functionality are considered basic and standard. Timesheets must provide the finance and project teams information about the time spent on tasks for specific jobs, where a nominal resource cost can be allocated and the team can report on a project resource usage and spend against the original project budget.

It is felt that the use of timesheets isn't uniform across the business units of RSSB, many employees are required to fill timesheets but they aren't always completed in the same way. The business is looking for a solid and flexible timesheet application that can place control and governance over timesheet entry and provide valuable reporting and data extraction capabilities from the data that has been submitted.

6.2. Current Systems

The various business units of RSSB are currently recording their time in a windows application called TimeTell. TimeTell is a time recording and reporting application.

6.3. User Requirements

The table below breaks down user and employee metrics for licence pricing and implementation costs. The table is broken down into the following sections:

Section	Description
Full System Users	Full System users are raising & processing orders, carrying out posting activities and would spend most of their working day within the system
Light System Users	Light users are sporadic or basic users; they raise simple orders or make enquiries into the database for information. Light users have unlimited read only access but are limited to the write abilities.
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Reporting Users	Users who carry out advanced reporting or analytics functions within the team but don't access the ERP system.

Full System Users	System Light Users	Timesheet Users	Reporting Users

6.4. Solution Requirements

6.4.1. Timesheets

6.4.1.1. Timesheet Data Setup

When using TimeTell, when a project is setup in one of the various project management systems, the project and task codes are required to be setup in Timetell before time can be recorded against those projects.

The solution **must** allow the projects that have been configured in the jobs/project management module to be the same master data used by the timesheet system. This will prevent a need for double entry and reduce any user data entry errors.

Timetell currently operates on a two-dimension basis, A project and a project task. Areas of the business operate on a Programme, Project and Project Task Basis.

The timesheet solution **could** allow a user to select a programme, project and project task on their timesheets.

The solution **must** support a Hierarchical selection filtering process to allow a user to define a programme or project and for project tasks to be filtered based on the dimension levels above.

The solution **must** clearly indicate and restrict the level that should be booked to. If a project has tasks, then it must be tasks.

Resource can be allocated across multiple programmes and projects. The solution **must** allow a resource to be allocated or have permissions set to access certain projects.

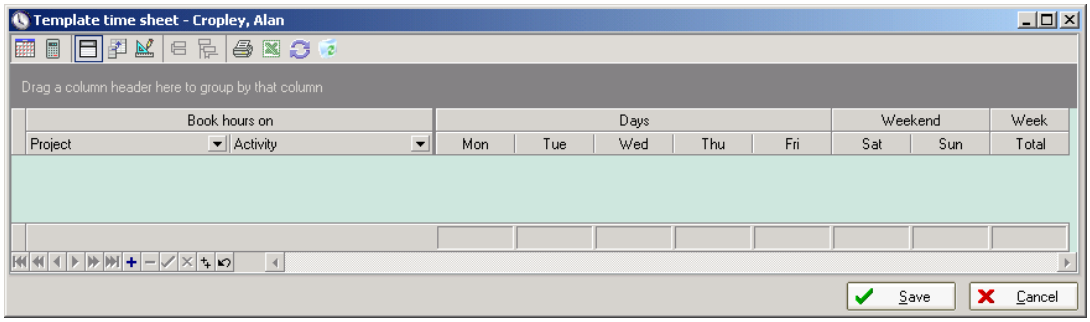
6.4.1.2. Time Recording

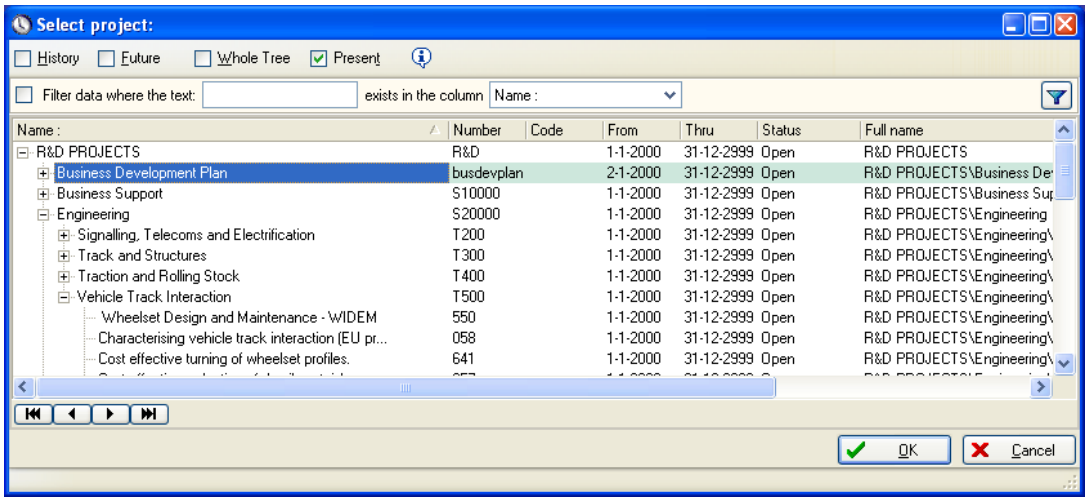
Mobility and remote access are very important to RSSB, both for internal employees that are remote workers, and external contractors/resource. The solution **should** allow remote access via a number of flexible methods including:

- Mobile Phone App (Windows, Android & iOS)
- Web Browser
- Citrix / Remote Desktop

In Timetell currently, the system allows the creation of user specific templates for time. When a user creates a template it allows them to create a list of "favourites", which are commonly worked on Projects and Project Activities. Users often create between 5-15 activities in their favourites which can be used when entering timesheets.

The solution **Must** allow timesheet templates to be created for individual users, this should be a simple and intuitive process.





Timesheets are currently entered into Timetell on a weekly basis. The solution **should** have the ability to generate timesheets for users to enter on a flexible period basis, allowing the administrator so select whether a timesheet should be completed daily, weekly, monthly etc. This would allow the business more flexibility in changing timesheet protocol in the future should it desire.

The solution **must** allow timesheet templates, or weekly timesheets to be automatically populated based on the project tasks allocated to the specific user.

The solution **must** only allow users to book to projects/activities they have been assigned to by the Project Manager.

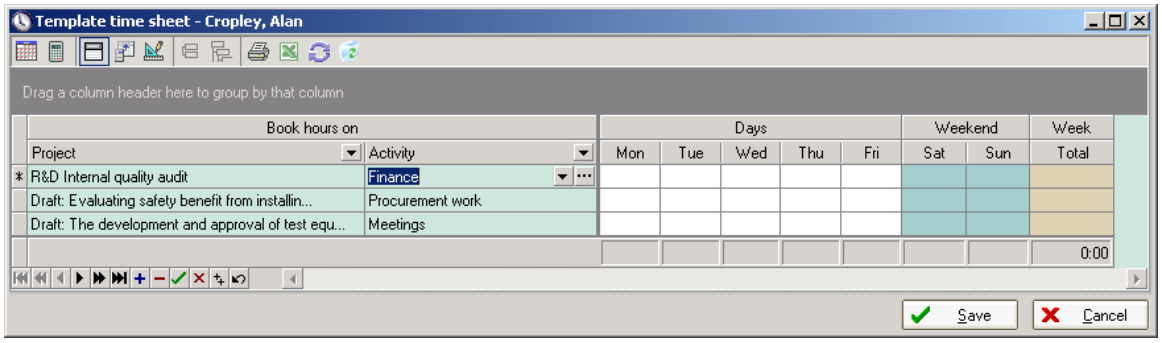
The solution **must** not allow pre-population of work within templates.

The solution **should** allow a timesheet to have the users “favourite” lines added via a simple action button in the user interface.

Currently, a user has the ability to copy timesheet lines from a previous timesheet which can then have the hours amended, tasks removed or added. The solution **should** allow a timesheet to be copied from a previous week that can be amended by the user.

Resource can be allocated across multiple programmes and projects. The solution **should** allow a resource to be allocated or have permissions set to access certain projects. The solution **must** support the ability for a timesheet to contain lines allocated to multiple project tasks, against multiple projects and programmes.

In Timetell a user will begin to enter their timesheets by populating a number of standard fields on the timesheet to record their time:



When looking up projects and activities within Timetell, a user is able to see every project and activity within the system. This can be confusing for the user and the list of data can take time to work through to make sure the correct task is selected.

The solution **should** allow a project list to be filtered by a project that is allocated specifically for a user, or group of users.

The solution **should** allow an activities list to be filtered by a project that is allocated specifically for a user, or group of users.

The solution **should** allow closed projects & project tasks to be filtered from the list.

Time is entered into the timesheet in hours (the preference is whole or half hours). Currently time is entered in a decimal format where hours and minutes are represented as a decimal value which can cause confusion. For example, 7 hours and 30 minutes is represented as 7.3 hours.

The solution **should** allow for time entry for an individual task to be restricted to certain time units, allowing an administrator to define if time can be only entered in single, half or quarter our units. This will make time reporting against task look tidier and more understandable.

The solution **must** represent time in a consistent format to represent the contracted/scheduled values against the project.

Time is recorded for a week as 36 hours which is a standard working week for all full time RSSB employees. The solution **must** allow a user to enforce a set working week based on a setup of a minimum and/or maximum number of days or hours for an employee to log their time. A user

should not be able to submit their timesheets if these criteria aren't met and inform them of the reason why.

The solution **should** allow minimum/maximum submitted timesheet hours to be defined by a group of employees (for example, part time, full time, zero hours' employees)

An employee entering time into a timesheet **should** not be responsible for stating costs against a timesheet line. The solution **must** handle this based on the project and resource setup.

6.4.1.3. Contractor Timesheets

Timetell is used for timesheet recording by contractors. Because the costs are recorded by the contractor invoice the timesheets are entered with a zero value but are used so the project team can record progress against the tasks. The solution **must** allow the ability for time that is recorded for a resource to have a purchase invoice line allocated to it, to allow time to recorded against a project that has an accurate cost.

6.4.1.4. Time Submission

Currently all contractor timesheets are put through an approval process. Once timesheets are completed for the week, an action is carried out by the user to submit the timesheet for approval. The once approved, the timesheet is sent to the finance team.

The solution **must** have simple action to submit a timesheet for approval.

There also **must** be a timesheet approval workflow that allows timesheets to be diverted to the correct approval path that is decided by employee, or employee group and project

The solution **must** have a timesheet overview/review screen which allows an approver to have an overview of timesheets, and the ability to review, modify and approve the timesheets.

The solution **should** allow a pivotal view of project data whilst approving timesheet lines, showing time booked for an employee in that week, against project budget, highlighting and overruns.

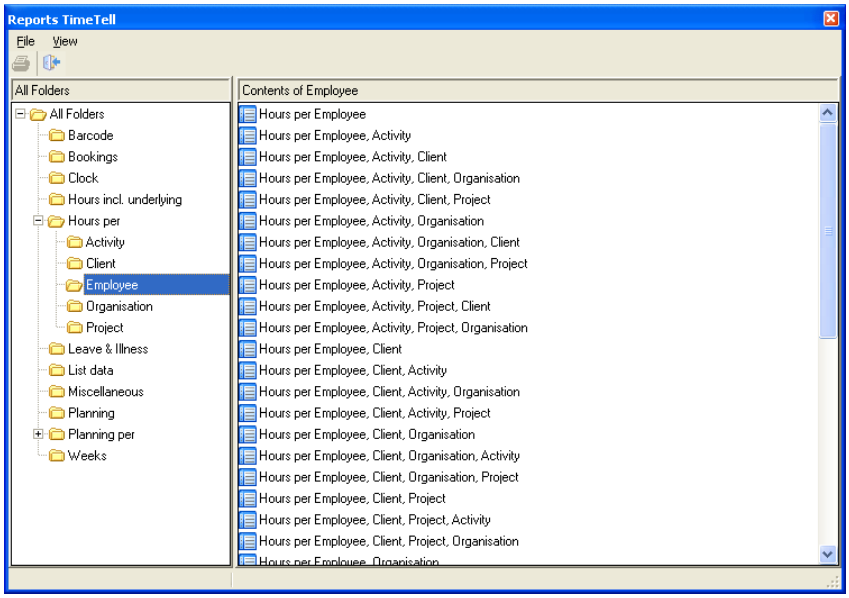
Once a timesheet has been approved, it is passed to the finance team who allocate the costs and recharges between the projects and departments. At this point timesheets are locked so they are unable to be modified once this exercise has been carried out.

The solution **must** allow resource costs to be allocated against a project task. Work in progress costs should be able automatically recorded in the general ledger. The solution should allow a user with the correct permissions to restrict modification of the timesheet lines once they have been posted.

6.4.1.5. Reporting & Monitoring

In the existing system, a number of reports are available for the project managers to analyse the time entered. There are a number of key reports that have been identified as requirements throughout the process. The solution **should** support a flexible set of standard reports for time reporting, Including the following:

- Employees who have not submitted timesheets for a certain period
- Resource Utilisation
- Hours per Employee by Dimensions (Project, Organisation, Client)
- Time recording at a project and activity level



7. Innovation

7.1. Overview

Within RSSB there is an Innovation Directorate with responsibility to run a variety of programmes for innovation in the rail industry.

The Directorate and its programmes are primarily funded through grants from the Department for Transport and a collaborative agreement with Network Rail. There are grants from other sources that occasionally become available to the Directorate.

The innovation team are a department of RSSB that are split into three sections:

Delivery Team

The delivery team is responsible for developing and running grant funded competitions for innovators to develop new technology for the railway. The Delivery unit is made up of a team of 9 Project Managers, there is also a supporting Project Management Office (PMO) with 3 people and a management structure around that.

The core work of the delivery team is related to projects. A competition is run as a programme and has a gated workflow process that follows the lifecycle of the project which is detailed later in this section.

Strategy Team

The Strategy team work on long term strategies for the use of technology on the railway, and planning for skills development on the railway and consists of six full time employees and two contractors.

Strategy Skills Team

The remit of the strategy skills team is to Engage with the rail supply chain and groups that represent. The focus of the team is to look at skills gaps, training, certifications and for embedding innovation into industry policies.

7.2. Current System / Process Pains

The Innovation Directorate use the Innovation Management System (IMS) to manage all innovation programmes and projects. IMS is also used by the R&D department to assist them with the management of their co-funded programmes. IMS is an implementation of SmartCore from Ninth Wave and SmartCore also underpins the R&D departments Research Management System with its own dedicated workflows and authorisations. For IMS there is no interface to other company systems as yet, instead the finance department provide two simple Excel documents on a period basis that are imported by the PMO. One document sets out the internal costs broken down by programmes, the other sets out the externa expenditure in terms of Purchase Orders, their value, their total invoiced amount and their status. There is also the ability to export financial information from IMS in Excel format to support the finance department.

7.3. Users Requirements

The table below breaks down user and employee metrics for licence pricing and implementation costs. The table is broken down into the following sections:

Section	Description
Full System Users	Full System users are raising & processing orders, carrying out posting activities and would spend most of their working day within the system
Light System Users	Light users are sporadic or basic users; they raise simple orders or make enquiries into the database for information. Light users have unlimited read only access but are limited to the write abilities.
Timesheet Users	Timesheet users who will only enter timesheets and do not fall into the Full or Light user category. Any Full or light users who produce timesheets should not be counted again
Reporting Users	Users who carry out advanced reporting or analytics functions within the team but don't access the ERP system.

Full System Users	System Light Users	Timesheet Users	Reporting Users

7.4. Requirements

The Requirement for the Innovation Team is for a programme/project initiation application, incorporating workflow and authorisation for the Team Stage Gates, with programme/project management and programme office functionality to enable the management and monitoring of the end-to-end innovation process from development through competition and then to delivery. Consistent and trusted data is required to ensure quality and on-time status and progress reporting for internal reviews and more formal governance processes.

As a potential replacement for IMS, the requirements for System Functionality for Innovation cover the following areas:

- Document control
- Audit (Change tracking by system and user processes)
- Governance and workflow
- Planning schedule (at task level for key dates)
- Financials and forecasting
- Programme progress reports
- Project and Programme RAG reporting
- Contract management including the use of financial milestones for Cost of Work Done reporting and forecasting
- Grant allocation and exposure by programme
- Report generation in Word and Excel

7.5. Current Solution

7.5.1. IMS (Innovation Management System)

The innovations team is currently working on a platform providing them with portfolio/project/jobs functionality. RSSB refer to this innovation system as the Innovation Management System (IMS).

IMS is a Web Based system based on a platform called Smart Core from Ninth Wave. The system has been set to provide RSSB with the functionality the team require to operate.

Currently the platform is hosted internally on RSSB Servers and also supports the R&D department's Research Management System.

IMS is RSSB's system for managing and controlling all of the programmes and projects that the Innovation Team is running. This has been developed in order to improve the reporting processes used by Innovation, to maintain better control of the financial status of our programmes and the projects under them, and to support the audit trail to demonstrate assurance with the programme governance and to accurately apportion allocation and draw down against each specific source of grant income

It was developed out of the Research Management System (RMS) used by RSSB for their R&D projects. It is based on a SmartCore platform and developed in September-October 2015 to replace the excel-based tracker and programme reporting documents hosted on SharePoint.

All project managers use IMS to monitor and update their programmes and projects. The information from IMS will feed into and support internal (SLT, Portfolio review, re-forecasting) and external (TSLG, TSLG Core Group, DfT quarterly, annual planning) reports.

Within the IMS System there is a project hierarchy where there may be a Programme, under a programme can be multiple projects and a project can have multiple project tasks

IMS has a basic integration to Sage 1000 which is RSSB's current finance system.

The solution **should** allow finance data to be passed to the projects module without manual intervention.

7.5.2. Document Management

All ideas and papers that are created as part of these projects are stored on the document management area of the SharePoint site, with hyperlinks held in IMS for key documents. IMS also has the capacity to generate and hold documents itself and to have documents added to it.

7.5.3. Timesheet Management

The Innovations Team and its contractors submit timesheets through a windows application called Timetell. Although there is a link between Timetell and SmartCore this is only used by R&D in RMS.

Timesheet lines in relation to Innovation are recorded and processed by the finance team to create precise project costings which are then are imported in Sage by the finance team and passed to the Innovation PMO for importing into IMS.

7.5.4. Other Systems

There is a process called Single Point of Entry which enables an open mailbox for anyone to submit innovation or ideas emails. This is administered by the R&D team within RSSB. Ideas are posted to a web page on the RSSB website where they can be reviewed by a panel. Review is bin them, put them into research, put them to standards, or put them to innovation.

7.6. Solution Requirements

7.6.1. Projects

7.6.1.1. GUI & General Usage

The current system has a web based, aesthetically pleasing and intuitive interface. A replacement system **should** reflect the same advantages to the users accessing the system.

Currently there is a Fast Find function that allows a search of programmes within IMS, this will search for titles within the project and will display the correct programme. This function supports wildcards and text search.

The New system **must** support the ability to search, and filter using flexible methods for the projects functionality.

Within IMS there is an option to have to select Edit on a record before being able to edit it. The new system **should** require the user to select edit or view depending on the action they are carrying out on the record. This function **should** be controlled by user permissions as to whether you are allowed

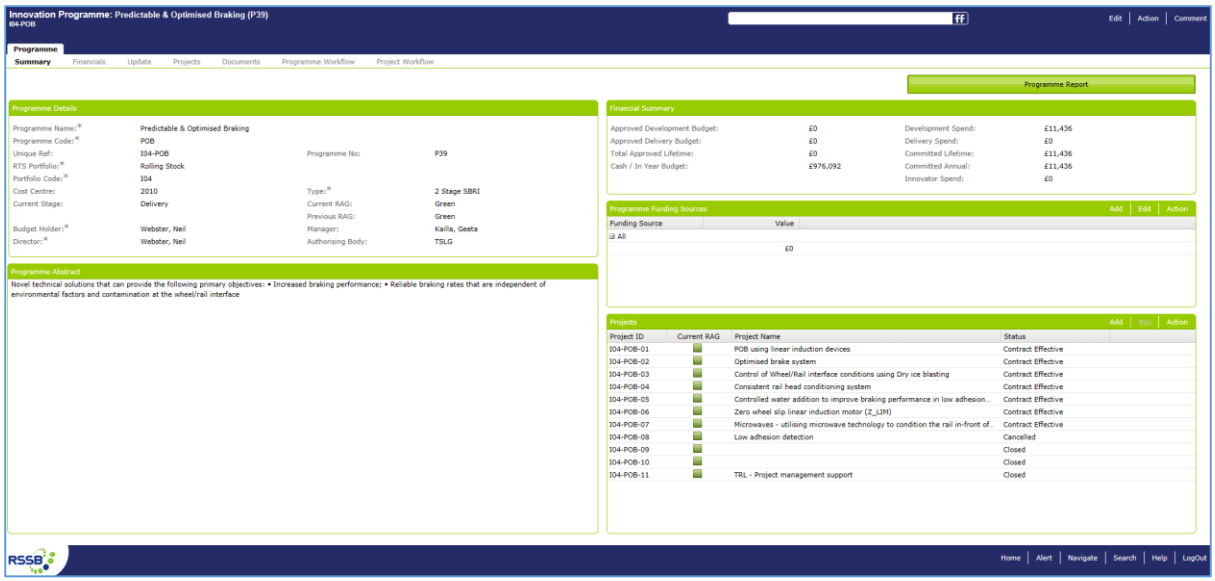
to edit the record
There is an Export: Print Preview function that allows a screen to be printed. The new system **should** allow pages to be sent to Microsoft Word and Excel to allow data to be manipulated and Printed.

The new system **should** allow a user to add/remove, resize and move columns within list screens in the application.

7.6.1.2. Programme Management

Projects are split into multiple levels within Innovation. A manager will be responsible for a programme which will be made up of multiple projects.

The current system provides an overview screen for Programmes showing summary information of that programme presenting various sections of the information to the users:



The new system **must** provide the facility to capture specific data about the Innovation Programmes and Projects. This information is currently captured as below:

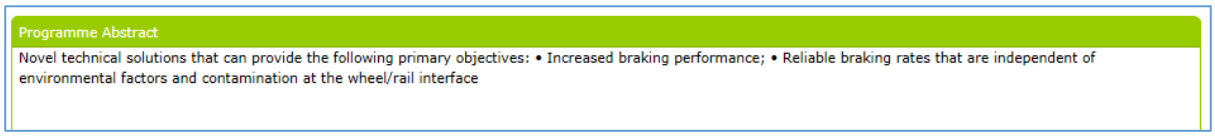
This is the summary of high-level programme details. This data is input when the programme is first entered into IMS and updated during the life of the programme. This data is managed by the PMO.

Some examples of these fields are:

- Programme Name

- Programme Code
- Unique Reference
- RTS Portfolio
- Portfolio Code
- Cost Centre
- Current Stage
- Budget Holder
- Director
- Programme No.
- Type
- Current RAG
- Previous RAG
- Authorising Body
- Manager

The system **could** present this Project information in a user definable dashboard allowing the user to select to view information based on what they are required to see, or their permissions.



The abstract is a summary of the programme, as entered when the programme was set up by the PMO. As the programmes develops the text will be updated by the PMO to align with the public description in the solutions catalogue. This text is extracted and used in the P3O report.

The replacement system **must** allow abstract text to be stored against a project as a free text box.

This screen indicates the various sources of grant funding that relate to this programme. This will be entered into IMS at the early stages of the programme by the PMO.

The system must allow funding source information and values to be stored against a programme.

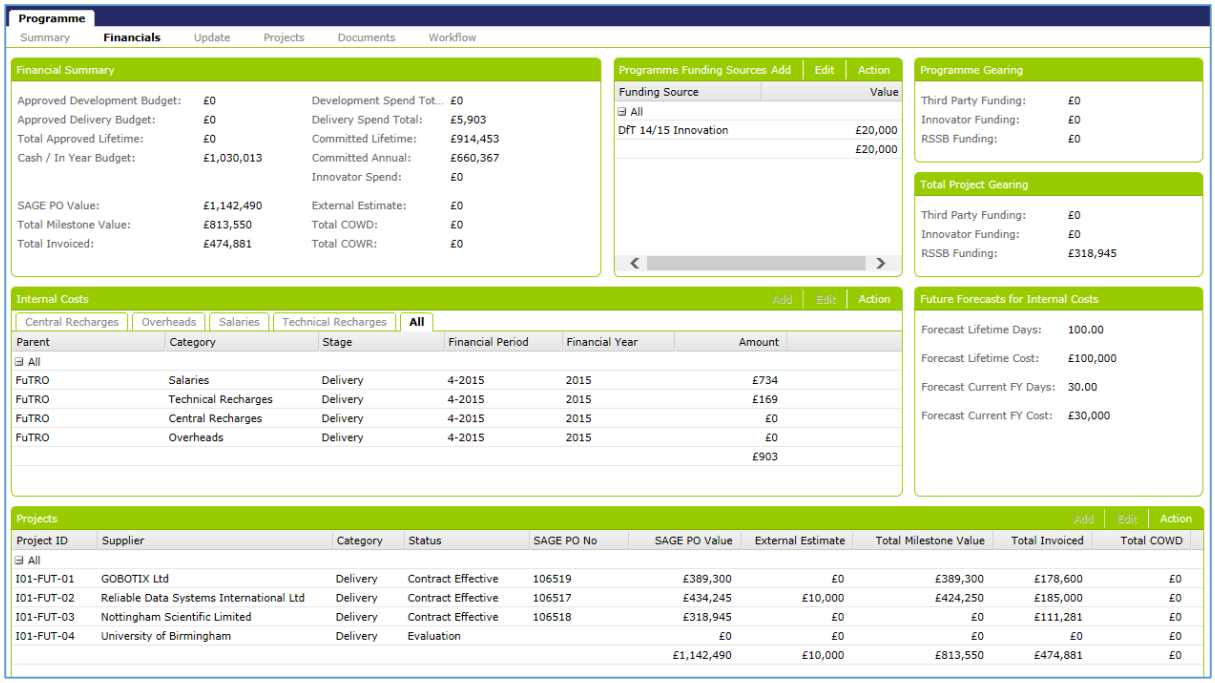
Within the Innovation team project tasks can be attached to a project, that can then be grouped as a programme. The projects in IMS are setup at a two tier level, with a project and a project task underneath. The replacement system **should** provide the ability to add a third level to this hierarchy

When a purchase order is raised for a contractor, or for services or materials that span multiple projects. It is currently not possible for one order to span multiple projects. The current system requires multiple Purchase Orders to be created.

The system **must** provide functionality to allocate purchase order lines at a project level.

7.6.1.3. Financials

Within RSSB, it is essential that the team can monitor the financial aspects of a project, spend vs. budget and report the figures back to the spending sources where necessary at a grant by grant basis.



The Programme has a page summarises the detailed financial status for the selected programme, the replacement system **Must** contain a summary page of all financial detail of a program from a top town perspective.

The Programme Funding Source data area is a list that allows funding streams and values for the selected programme to be added or edited. The solution **must** provide functionality to allow programmes to be classified by funding stream.

The Internal Costs data area is a list with pre-set filter tabs for Central Recharges, Overheads, Salaries, Technical Recharges and All. The replacement system **must** have the ability to filter and separate data for these sections.

The Projects data area is a list that shows projects for the selected programme. Both this and the Internal Costs lists allow the user to drill down into the records (on a double-click), but do not allow you to add or edit. All cost fields **must** have the ability to drill down to see the data that makes up the total field viewable on the summary screen.

The Programme Gearing reflects the overall intended gearing for the programme (a top-down perspective) whilst the Total Project Gearing reflects the overall gearing that has been achieved on the projects within the programme. Future Forecasts for Internal Costs data is based upon updates provided as part of the period end update process and is used to establish if the programme will be delivered within the current year's cash budget and the overall lifetime budget.

The new solution **should** house the functionality to add future forecasts for internal cost data. These forecasts **could** be imported from a 3rd party application.

7.6.1.4. Project Planning & Management

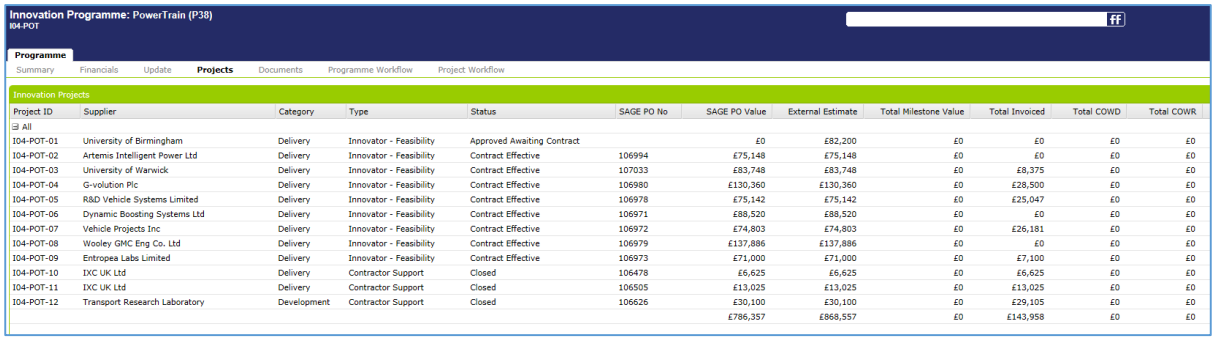
Within a Programme, the Innovation team are running multiple projects that are reported on as a complete programme. The Projects hold detailed Project and Financial information and the system **should** support the ability to have a hierarchy of projects.

The solution must support a four level project hierarchy; these levels are as below:

- Portfolio (At a financial and milestones level)
- Programme
- Project
- Project Task

The team use a summary view of projects that are relevant to a specific program. The basic project information is displayed within the list. Double clicking on a project takes you to the specific project page.

The system **must** provide an overview screen of projects for a specific programme. This screen **should** be flexible and allow a user to hide, show and move columns. The list **should** allow easy access to the detailed information about a project, and **should** allow the user the ability to export the list to excel.



Innovation Programme: PowerTrain (P38)
I04-POT

Programme

Summary | Financials | Update | **Projects** | Documents | Programme Workflow | Project Workflow

Innovation Projects

Project ID	Supplier	Category	Type	Status	SAGE PO No	SAGE PO Value	External Estimate	Total Milestone Value	Total Invoiced	Total COWD	Total COWR
All											
I04-POT-01	University of Birmingham	Delivery	Innovator - Feasibility	Approved Awaiting Contract		£0	£82,200	£0	£0	£0	£0
I04-POT-02	Artemis Intelligent Power Ltd	Delivery	Innovator - Feasibility	Contract Effective	106994	£75,148	£75,148	£0	£0	£0	£0
I04-POT-03	University of Warwick	Delivery	Innovator - Feasibility	Contract Effective	107033	£83,748	£83,748	£0	£8,375	£0	£0
I04-POT-04	G-volution Plc	Delivery	Innovator - Feasibility	Contract Effective	106980	£130,360	£130,360	£0	£28,500	£0	£0
I04-POT-05	R&D Vehicle Systems Limited	Delivery	Innovator - Feasibility	Contract Effective	106978	£75,142	£75,142	£0	£25,047	£0	£0
I04-POT-06	Dynamic Boosting Systems Ltd	Delivery	Innovator - Feasibility	Contract Effective	106971	£88,520	£88,520	£0	£0	£0	£0
I04-POT-07	Vehicle Projects Inc	Delivery	Innovator - Feasibility	Contract Effective	106972	£74,803	£74,803	£0	£26,181	£0	£0
I04-POT-08	Wooley GMC Eng Co. Ltd	Delivery	Innovator - Feasibility	Contract Effective	106979	£137,886	£137,886	£0	£0	£0	£0
I04-POT-09	Entropea Labs Limited	Delivery	Innovator - Feasibility	Contract Effective	106973	£71,000	£71,000	£0	£7,100	£0	£0
I04-POT-10	IXC UK Ltd	Delivery	Contractor Support	Closed	106478	£6,625	£6,625	£0	£6,625	£0	£0
I04-POT-11	IXC UK Ltd	Delivery	Contractor Support	Closed	106505	£13,025	£13,025	£0	£13,025	£0	£0
I04-POT-12	Transport Research Laboratory	Development	Contractor Support	Closed	106626	£30,100	£30,100	£0	£29,105	£0	£0
						£786,357	£868,557	£0	£143,958	£0	£0

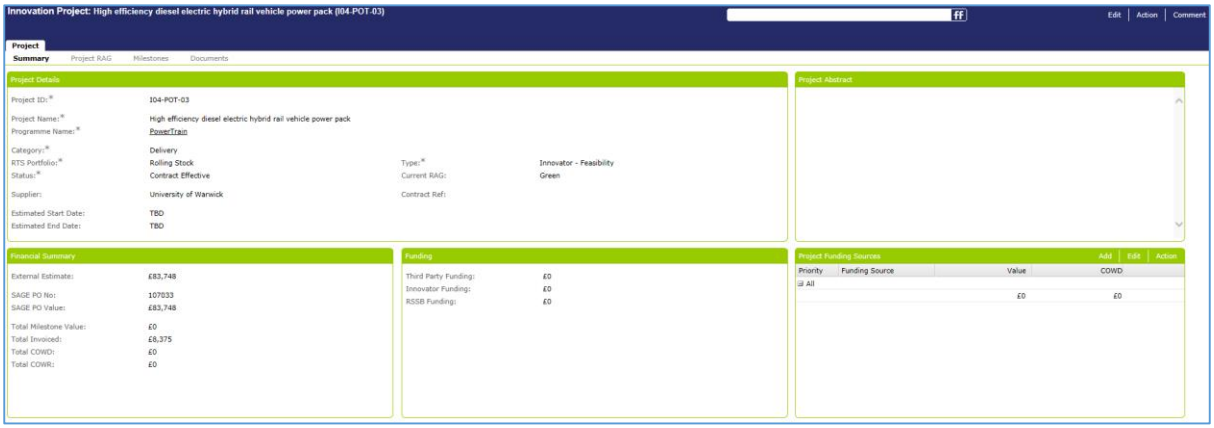
The system **must** support intelligent coding of a project. The system **should** also allow for an automatic sequential number series to be created for certain types of project, where required. The unique coding structure for the unique code is used as a reference and is made up as follows:

- I08-TNT
- The first character (I) is the Team code, Innovation in this case
- The Numeric value (08) is the Type of Task
- The Three letter suffix (TNT) is the Programme Code.
- Activities within the project suffix the Project code is -01, -02, -xx.
- The Type of Task code is related to the Rail Technical Strategy which consists of Infrastructure, Rolling Stock, Energy, Information, Command/Control/Communication and Customer.

The system **must** support the ability to hold the Type of Task, and Programme code as a dynamic lookup table where data can be setup and configured by users with the relevant set up permissions.

The detailed project card displays detailed information about a specific project. The system **must** provide the ability to view this information. An example of the data capture on the project are:

- Project ID
- Project Name
- Programme Name
- Category
- RTS Portfolio
- Status
- Supplier
- Estimated Start Date
- Estimated End Date
- Type
- Current RAG
- Contract Reference



As well as the project details, the project must **hold** information related to the financial aspects of the project, an example of this data would be:

- External Estimate
- Purchase Order No.
- Purchase Order Value
- Total Milestone Value
- Total Invoiced
- Total Cost of Work Done (COWD)
- Total Cost of Work Remaining (COWR)

As well as the project finance, the system **must** have the ability to hold the funding source, and funding amount. This should be summarised between the following sections:

- Third Party Funding
- Innovator Funding
- RSSB Funding

The individual project pages start with the summary page, which presents project details, Abstract, financial summary, and funding details.

There are three other tabs on the project that show detailed information about other parts of the project. The first tab is a Project RAG tab, showing details about the RAG status of the project tasks. The new system **must** have the ability to display a RAG status for a project showing the following Indicators:

- Overall RAG Status
- Supplier
- Purchase Order No.
- Project Status
- Time RAG Status
- Cost RAG Status
- Quality RAG Status
- Completion Status
- Approval Status

The solution **should** allow user defined customer fields to be added to the pages in the database to store data that can be used for filtering and reporting purposes.

The new system **should** support project milestones which should display current status, a start and end date and a description of the milestone.

The system **must** house the ability to link documents to a project that are stored in an external location, such as SharePoint or the Windows File System. The system should allow these documents to be opened directly from the user interface.

The solution **should** support multiple purchase orders that are attached to a project.

When using an integrated finance and project system, it is important that project costings are configured to post to the correct place in the chart of accounts. The solution **should** provide unlimited work breakdown structures within projects according to the chart of accounts (For example, Land, Building, Engineering or External Work)

Resource within RSSB is specific to departments and in many cases a subcontractor or external resource. The system **must** allow the allocation of costs from a single resource to multiple projects. The system **should** allow costs to be transferred between projects.

7.6.1.5. Workflow

During a programme, the Innovation team carry work out based on a gated workflow process. The workflow can apply to a Programme and projects.

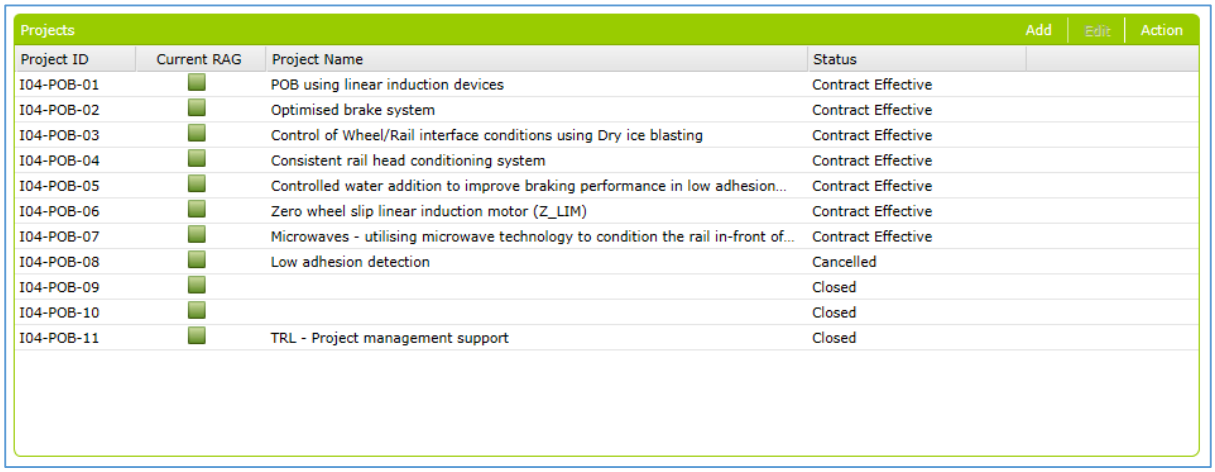
The gated process for the Innovation team is embedded below. The new system **should** support the ability to hold a flexible and configurable workflow that can be adapted to the RSSB process.

The gates within the document are a combination of paper based and non-system related tasks, and system processes. The workflow **should** hold the ability to control the progress of system related tasks, as well as controlling the gates where documents are required to be loaded into the system.

Gated Process - Innovation.xlsx

The system **should** support the ability to create flexible notifications and reminders to provide control and governance over the innovation programme process. Notifications and Reminders **should** be able to be sent to system users, within the system and via email including due dates, and overdue notifications.

7.6.1.6. Monitoring and Reporting



Projects — Add | Edit | Action

Project ID	Current RAG	Project Name	Status
I04-POB-01		POB using linear induction devices	Contract Effective
I04-POB-02		Optimised brake system	Contract Effective
I04-POB-03		Control of Wheel/Rail interface conditions using Dry ice blasting	Contract Effective
I04-POB-04		Consistent rail head conditioning system	Contract Effective
I04-POB-05		Controlled water addition to improve braking performance in low adhesion...	Contract Effective
I04-POB-06		Zero wheel slip linear induction motor (Z_LIM)	Contract Effective
I04-POB-07		Microwaves - utilising microwave technology to condition the rail in-front of...	Contract Effective
I04-POB-08		Low adhesion detection	Cancelled
I04-POB-09			Closed
I04-POB-10			Closed
I04-POB-11		TRL - Project management support	Closed

This screen lists all of the projects within that programme that have currently been set up, and which have been approved with funding attached. This will include any that have been closed, cancelled or completed.

It is a **must** that an overview of all projects within a programme can be viewed in a single area where contract status can be viewed along with a RAG status indicator.

Financial Summary

Approved Development Budget:	£0	Development Spend:	£11,436
Approved Delivery Budget:	£0	Delivery Spend:	£0
Total Approved Lifetime:	£0	Committed Lifetime:	£11,436
Cash / In Year Budget:	£976,092	Committed Annual:	£11,436
		Innovator Spend:	£0

The financial summary indicates the funds allocated to this programme and the proportion of that which has been spent. These figures are a generated by a combination of Purchase Invoices against a project and time that has been recorded. Time recorded by personnel is logged against spend at a nominal daily/hourly resource rate. Examples of these fields are:

The new system **must** allow summary financial information to be stored and viewed by the users. Examples of this information is (All Currency Fields):

- Approved Development Budget
- Approved Delivery Budget
- Total Approved Lifetime
- Cash / In Year Budget

- Development Spend
- Delivery Spend
- Committed Lifetime
- Committed Annual
- Innovator Spend

The system **should** present this financial information in a user definable dashboard allowing the user to select to view information based on what they are required to see, or their permissions.

This solution **Must** support the ability to report for specific government reporting requirements, for example European commission.

The system **must** support timesheet recording functionality. The timesheet functional requirements are captured in the Timesheet section of this requirements document.

The solution should allow a supplier to update COWD numbers through a supplier portal and contract performance and RAG Status. And subject to a workflow stage. RMS already do this SPER (Supplier period end report already does this).

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7.6.1.7. Periodic Updates

There are periodic activities carried out on the programmes and projects by the department. There are five main areas that are reviewed by the team as a part of this process.

These are:

- Project Cost of Work Done (COWD)
- Project RAG
- Programme RAG
- Programme Progress
- Planning

On a periodic basis a manager will review the status of these areas and approve them. The system **should** allow a project or programme to be updated with a COWD figure and should allow the user to approve.

The periodic activities **should** be able to be controlled by a gated workflow process.

7.6.1.8. Reporting

In the existing application, Multiple Programme Reports are available. These are accessible from the front screen and from the individual program pages.

The reports **must** be able to be filtered by the key elements of the programme to allow reports to be run for certain programmes, date ranges and types of projects.

An example of this criteria is:

- RTS Portfolio
- Portfolio Code
- Manager
- Budget Holder
- Cost Centre

The report is based on a standard template and will list the latest information on a programme and then any projects beneath it. It provides information on financial parameters and updates on progress, plus the latest RAG status. The new system **must** allow reporting on Programme and Projects by using RAG and Financial information.

An example of the programme Report is embedded below. The system **must** be able to produce a report in Word containing the project information as per the document.

Dummy Innovation programme report v2

Currently reports are created as word documents and stored in the in the IMS System. The replacement solution **should** allow reports to be run directly on live data, efficiently and without any slow down or table locking within the database.

In Addition, the **solution** should provide a full suite of Project Reports including:

• Cost incurred/committed vs budget and % completion;
• Project status and performance versus plan;
• Forecasts e.g. costs to complete job;
• Capital vs non-capital items;
• Projects grouped by manager, by region or any other analysis field;
• Analysis and totals of contractor/sub-contractor costs;
• Costs, work in progress, accruals, commitments by project, etc.; and
• Reporting on completed projects.

7.6.1.9. Closing Projects

The solution **should** provide a project closure process that includes review and approval.

7.6.1.10. Integration

RSSB Utilises Project Server for resource planning in other departments of the business. The integration of project server to the new package is in scope. This **should** be available to be accessed by the Innovation Team should the requirement to use Project Server arise in the future.

8. Standards

8.1. Overview

The Standards Directorate are a team within RSSB that are membership funded, that have a number of functions within the organisation which cover Standards in the Railway Industry.

The team are responsible for running six standards committees that represent the standards for the Rail industry and work with the RSSB documentation, maintain membership lists, document circulation and ensuring roles and positions within the industry are filled with the correct resources.

The Committees are comprised of: individuals elected as committee members by RSSB Member categories to represent those categories, members representing RSSB, and observers. Each Committee elects a chairman, who is normally one of the RSSB representatives.

The team also act as a Secretariat for European working groups and the British Standards Institute.

The Standards team also maintains a deviations register which stores a record of where a company may request to deviate from the advised standards on a temporary or permanent basis.

Another function of the team is to process proposals for standards change recommendations that are made internally (on behalf of industry) or from external sources (via the Request for Help web form). When standards are written or amended, these are presented back to the relevant committees.

The team may carry out other tasks for the research department, or other departments of the business that will allow the time to be cross charged as the different departments have their own funding and budgets. There is also billing to external clients.

R&D 'purchase' project time that is attributable to the DfT funding through the R&D budget. The remainder is from the Member core funding. There are also other sources of funding (e.g. WRISA legacy fund).

Recording costs against projects is not currently utilised with the existing system but is a key requirement for a new solution.

The standards team have around 100 employees

The ERP programme will provide RSSB with a standard projects & job costing module that will allow the projects where possible to be uniform across all departments. The standard requirements for the project costing module (aside from the Standards department specifics) are resident in the innovation working group section of this document.

As stated earlier in the document, Project Server and the proposed time recording system will capture data at task level within projects to allow comparison of actual work against assigned work. This is much greater than specified in the Innovations section of this document.

Automated generation of checking reports (to check project data) and to provide live reports for SC Committees and internal users is more extensive and more configurable than the IMS system.

8.2. Current Solution

One function of the standards team is related to standards (RGS, GN, RIS, NOPs) requirements / documents. These documents are currently and will continue to be stored on the RSSB SharePoint Site (http://www.rssb.co.uk/railway-group-standards/).

Consultation work for changes to the standards with proposed revised standards and associated documents (Impact Assessments, consultation response forms etc.) are available to committee members and RSSB members on the consultation and stakeholder register.

Standards projects do not currently have nor need financial authorisation. Delivery of the programme is resource driven rather than cost driven.)

The deviations register and proposals are stored in EasyDita which is a standalone Access database. The deviations register will be replaced by CRM functionality.

Project Server 2010 is used as a project management tool. Project server is a "best of breed" project management and resource scheduling tool and will continue to be utilised by the business. The integration of Project server to a Jobs and Resource module within a finance system is required.

The organisation is looking to use Project Online in the future.

The standards team also use Timetell to record all work done by resources; this includes but is not exclusive to work that needs to be cross-charged.

8.3. Users Requirements

The table below breaks down user and employee metrics for licence pricing and implementation costs. The table is broken down into the following sections:

Section	Description
Full System Users	Full System users are raising & processing orders, carrying out posting activities and would spend most of their working day within the system
Light System Users	Light users are sporadic or basic users; they raise simple orders or make enquiries into the database for information. Light users have unlimited read only access but are limited to the write abilities.
Timesheet Users	Timesheet users who will only enter timesheets and do not fall into the Full or Light user category. Any Full or light users who produce timesheets should not be counted again
Reporting Users	Users who carry out advanced reporting or analytics functions within the team but don't access the ERP system.

Full System Users	System Light Users	Timesheet Users	Reporting Users

8.4. Solution Requirements

8.4.1. Projects

8.4.1.1. Project Management (start to finish)

Projects are currently created, managed and resourced using project server. Currently timesheets are not utilised within Project Server and are using Timetell which is the current standard business time sheet system.

Within the new system, the ERP will become the central repository for master job records. A job will be created in the ERP which will allow the job to be passed through the appropriate workflow before being passed to Project Server.

The solution **must** support a flexible project accounting module that can provide project costing for expenses and sales against a job.

The Solution **should** provide for flexible, configurable, project coding.

The Solution **should** provide for multiple project types and levels e.g. main project, sub-project.

The Solution **should** provide multiple fields for user defined information capture (Job location -site name, site address, floor, room; Manager and other staff responsible - name, telephone, email…).

RSSB break projects down to a task level so that resources can be allocated to deliver the programme. RSSB would like the ability to record costs at a task level (though for Standards directorate projects task level costs (other than those used in calculating cross-charges) are of lesser usefulness. Costs should be allocated to a nominal code at a task level.

The Solution **should** provide unlimited work breakdown structures within projects with cost charged to projects according to the chart of accounts (for example Services, Products)

Project work is planned using project server. Project server is also handling capacity management. When a job is created in Project Server once a job has been created with the ERP solution, the base Job data should be passed to Project server where the enhanced, project specific data can be added.

The solution must provide the ability to integrate Jobs and Resources to Project Server for resource and capacity planning.

The solution must support the ability to hold user defined attributes against a Project master record in the ERP

8.4.1.2. Project Budgets

As with the rest of RSSB, budgets within the standards team are managed by the standards team. Project budgets are currently built in excel. Budgets worked on between finance and standards.

Budgets are managed by the standards team. Project budgets for R&D projects (and other specific projects as necessary) are currently built in excel. Budgets for the team are worked on between finance and standards.

Standards change projects neither have nor need financial authorisation.

Budgets are broken down into multiple areas covering payroll, industry consultancy, travel and expenses. The solution should provide a repository for a detailed project budget that can be amended as required during the course of a project.

The solution **should** provide to the ability to hold multiple versions of a budget for single project that will allow modifications to be made by certain users without affecting the original budget.

The solution **must** provide the ability to hold projects for different directorates.

RSSB would like to be able to create and view budgets by period.

8.4.1.3. Project Purchases

In some situations, for example where standards that are rewritten based on proposals that come into the workflow, this work is carried out by internal staff but where there are skill gaps, purchase orders may be raised for contractors.

The team use external technical specialists to input to industry projects being run by RSSB. Technical specialists are also used to attend meetings on behalf of RSSB or to provide specific technical services.

The Solution **must** have functionality to code multiple POs to a project and to code multiple projects to one PO.

The solution **must** support cost recording against a project task, and project lines and allow reporting on time/cost consumed vs. budget.

As happens across RSSB, once the team have made a decision to purchase a service, or goods for a project, a paper based requisition is raised. The paper based requisition contains information about the project, the requestor, and the goods being purchased.

The solution **must** allow a project user to raise an electronic purchase requisition with line level detail.

The solution **should** allow an electronic purchase requisition to be passed through a rigid approval workflow that is configurable by a user with the correct permissions.

Once the paper based purchase requisition document has been passed to the procurement team, the procurement team follow through their initial process and raise a purchase order.

The solution must allow an electronic process workflow to prevent the need for printed paperwork.

Invoices are processed by finance and currently accruals are kept by the project manager to keep track of the project costs against the budget.

The Accruals are currently held in a spreadsheet, which is provided by finance and completed by the Standards team before being passed back to finance.

The solution must **allow** work in progress figures to be recorded and reflected in the general ledger.

8.4.1.4. Project Sales

There is currently an income stream for external companies and people purchasing copies of standards documents.

RSSB do not generally invoice for time but do internally cross-charge across separate funding streams. Currently, users record their time in Timetell, resource have an hourly rate and time is billed from the timesheets, this is cross charged to internal departments or external customers. When time is billed it is recorded against a specific project in Timetell and this is still a requirement within the new system.

When time needs to be charged externally, a report is run is Timetell and an invoice is raised manually in Sage.

The solution **must** be able to raise a Sales invoice against a project, allowing all project costs and sales to be recorded against a single project code and project profit to be analysed

8.4.1.5. Payables

Across RSSB, currently when an invoice has been paid, there is not visibility of the payment of the invoice until a manual process has been completed to inform the system of the action.

The system **must** support the ability to post purchase orders, purchase invoices, sales orders and sales invoices with a project code to allow transactions to be recorded directly against a project.

The solution **must** allow a profit and lost report to be created for an individual project.

8.4.1.6. Monitoring and Reporting

Project Server is currently used for forecasting and reporting on resource for R&D project management and input for R&D projects. Information may be extracted from RMS (SmartCore) and compared with the information within project server to ensure that the information, while complimentary, is consistent.

Because the existing RMS system has restrictions around forecasting, the team are creating forecasts from Project Server for Standards Projects. The standards team use Project Server for project tracking.

Data from Project Server, in combination with other data sources (e.g. Timetell extracts) allows reporting on:

- Tracking actual resource work against assigned work
- Other reports KPIs

The finance team also produce a budget period report.

The solution **must** allow the generation of standard project reporting based on project budgets versus project usage.

During a project, all resources record their time within Timetell. The timesheet requirements are held within the Timesheet section of this document.

Currently a cost is setup against a resource in a project (as determined by the Finance department) and this cost is used to track costs against a project. The solution **must** store accurate costs against individual (Person, Equipment or a Room) to allow the system to track true costs against a project.

8.4.1.7. Closing Projects

When closing projects there are different processes for closing projects dependent on the type of projects. The solution **could** provide the ability to have a flexible workflow to facilitate the closing of a project. A project closure could involve the attachment of multiple versions of a document, including the final document, a process approval workflow and a final closed status on the project.

Project Server allows for use of workflows and approvals. This has not been implemented, awaiting future plans for Project Server.

The solution **could** allow an approval workflow to ensure that all purchase order documents have been closed and that the project is within a certain tolerance of over/underrun.

8.4.1.8. Reporting

The Standards department are using a number of SSRS (SQL Server Reporting Services) reports that access a data warehouse which holds the Project Server data. There are around twenty-five SQL reports that are utilised.

The core reporting requirements exist within the reporting section of this document. These are that the system **must** support the key reporting requirements from the Jobs database, including:

- Purchase and internal costs (Labour & Materials) against a projected for true margin analysis.
- Forecast Budgets vs. actual transactions.
- Project Cost to Complete.
- Project Margin.

The solution **should** allow the reports to be analysed but a number of filters, measures and dimensions.

The system **must** allow reports to be ran against the database without degradation to user performance.

8.4.1.9. Integration

Project server will not be in scope for replacement but the new system **should** support full integration to project server into the project costing module to allow billing and reporting information to be stored.

It is understood that there are a number of custom fields in project server that potentially would require being added into the new solution. The system **must** support the ability to create custom fields to store data within the Projects Module. This **should** not require double entry of data.

This custom information **should** be passed to transaction level for reporting.

9. Research & Development

9.1. Overview

The Research and Development (R&D) team manage an annual budget of approximately £9m that is invested in a variety of tactical and strategic projects.

The RSSB-managed research programme supports the GB rail industry in:

- Decision-making and learning
- Identifying and sharing good practice
- Reducing costs and carbon output
- Increasing safety, capacity, performance, and customer satisfaction
- Enhancing the industry's environmental credentials
- Engaging with UK universities and worldwide research bodies
- Making outputs from research available.

The R&D team support a broad range of short- and long-term cross-industry engineering and operations problems that no one company or sector can solve on its own. It is primarily funded by the Department for Transport (DfT). Research partnerships and co-funding schemes bring additional funding to the programme.

9.2. Current Solution

R&D use a system called Research Management System (RMS) which is based on the same application (SmartCore) that is also utilised by the RSSB Innovation team. R&D's use of RMS is split between two areas:

- An area to manage projects that are directly managed by RSSB. This part of the system is referred to simply as 'RMS'
- An area to manage co-funded or collaborative projects. This part of the system is referred to as 'RMS-C' and is based on a clone on the Innovation team's system.

RMS deals with financial data and tracks spend against cost of work done for proper governance and to report back to stakeholders. For the directly managed part of the portfolio, there are approximately 680 historic projects and there are approximately 100 live projects currently.

RMS has a web based front end based on a Microsoft SQL Server database. SmartCore is licenced for 63 full users but the team are recruiting so these numbers may grow.

The Research & Development version of SmartCore handles the project level information, work packages, project workflow gates and milestones and tracks internal and external resource costs.

The system has a powerful reporting tool that can produce the report packs that are required to be produced by RSSB. The system also has a report building capability allowing bespoke reports to be created as needed.

SmartCore is hosted on internal RSSB servers and does not have access from remotely from outside the building.

9.3. Current System / Process Pains

RMS and RMS-C provide robust management of R&D projects, however greater flexibility in being able to modify workflows, mandatory fields and dependencies between fields would make it easier to manage changes to our processes. We could also benefit from better/more intuitive messaging on when a rule has been infringed (e.g. the absence of a value won't allow a project to progress to a subsequent stage) and, within RMS, some of the governance rules could be removed to make the system easier to use.

9.4. Users Requirements

The table below breaks down user and employee metrics for licence pricing and implementation costs. The table is broken down into the following sections:

Section	Description
Full System Users	Full System users are raising & processing orders, carrying out posting activities and could spend most of their working day within the system
Light System Users	Light users are sporadic or basic users; they raise simple orders or make enquiries into the database for information. Light users have unlimited read only access but are limited to the write abilities.
Timesheet Users	Timesheet users who will only enter timesheets and do not fall into the Full or Light user category. Any Full or light users who produce timesheets should not be counted again
Reporting Users	Users who carry out advanced reporting or analytics functions within the team but don't access the ERP system.

Full System Users	System Light Users	Timesheet Users	Reporting Users

9.5. Solution Requirements

9.5.1. Contact Management

9.5.1.1. Contacts

The R&D Team don't currently have a requirement for CRM functionality, however, the projects do have contacts set against them. The contacts used for the projects would be the same contacts used throughout the standard contact management database within the system.

The solution **should** support a single contact record across all modules including the CRM application to allow a single view of customer data to be achieved.

9.5.2. Projects

9.5.2.1. General

RMS is a user friendly, logical and aesthetically pleasing application that allows users to navigate around a project in a way tailored towards the workflows that exist as part of the R&D business

process. The team are looking for the application that supersedes RMS to reflect the ease of use and flexibility of configuration.

The solution **must** provide an intuitive and user friendly interface that enables quick filtering and searching for all records.

The solution **should** provide a user configurable summary screen, providing the ability to add, remove and move columns and allowing the ability to save filtered views.

The solution **must** provide support for management of supporting data for projects, e.g. lists of client groups, technical areas, financial codes, the Railway Reporting calendar

9.5.2.2. Co-funded Projects

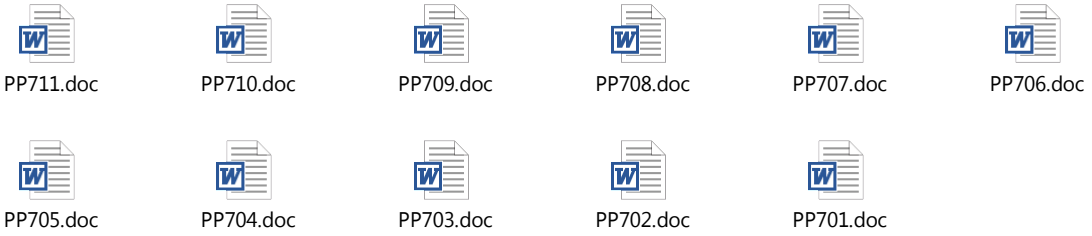
R&D run projects that are co-funded by other organisations, such as Research Councils, where the partner is likely to manage the project but status milestones will be held and monitored by RMS.

These projects generate a reporting and workflow around milestones. RMS-C handles these programmes and projects and will soon produce a suite of reports to assist with the management of co-funded projects.

The solution **must** allow a workflow to be designed per programme and project type and allow a separate suite of reports to be accessed for a co-funded project.

9.5.2.3. Project Workflow

Within the existing system there are a number of levels of project governance that are reflected in the application. These stages are managed rigidly by RMS and differ based on the type of project. The process flow documents are attached below (note that these documents are now out of date, but provide a reasonable approximation of the governance model).



The solution **should** support a system workflow to match the current workflow and governance reflected in the existing RMS system.

A directly managed project can have multiple work packages against it. A directly managed project has three levels, a Project, a Work Package and a Deliverable. A co-funded project also has three levels, a Programme, a Project and a Deliverable.

The solution **must** support a three level project hierarchy.

Throughout a project there are a number of workflow stages that control the order of data flow and restrict workflow stages being progressed without certain stages. The system **should** allow

mandatory fields, and data records to be configured to be populated at various stages of the workflow.

The solution **must** allow a cost centre, or project code to be allocated to a project record.

The solution **must** allow a work package to be allocated to a coding that will decide what nominal code the financial transaction and work in progress figures will be posted to.

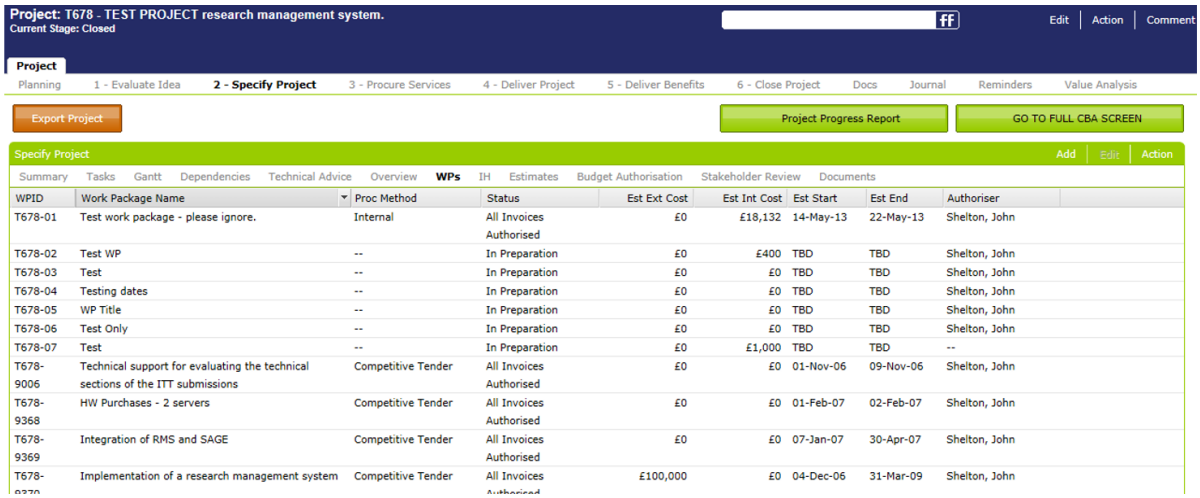
9.5.2.4. Project Planning & Management

Within RMS, the planning tab of the application currently holds an overview of the project that brings together key information about a project for the current period. Historical periods are accessed through a history tab.

This information will allow a project manager at a high level to view the status of a project during a specific period.

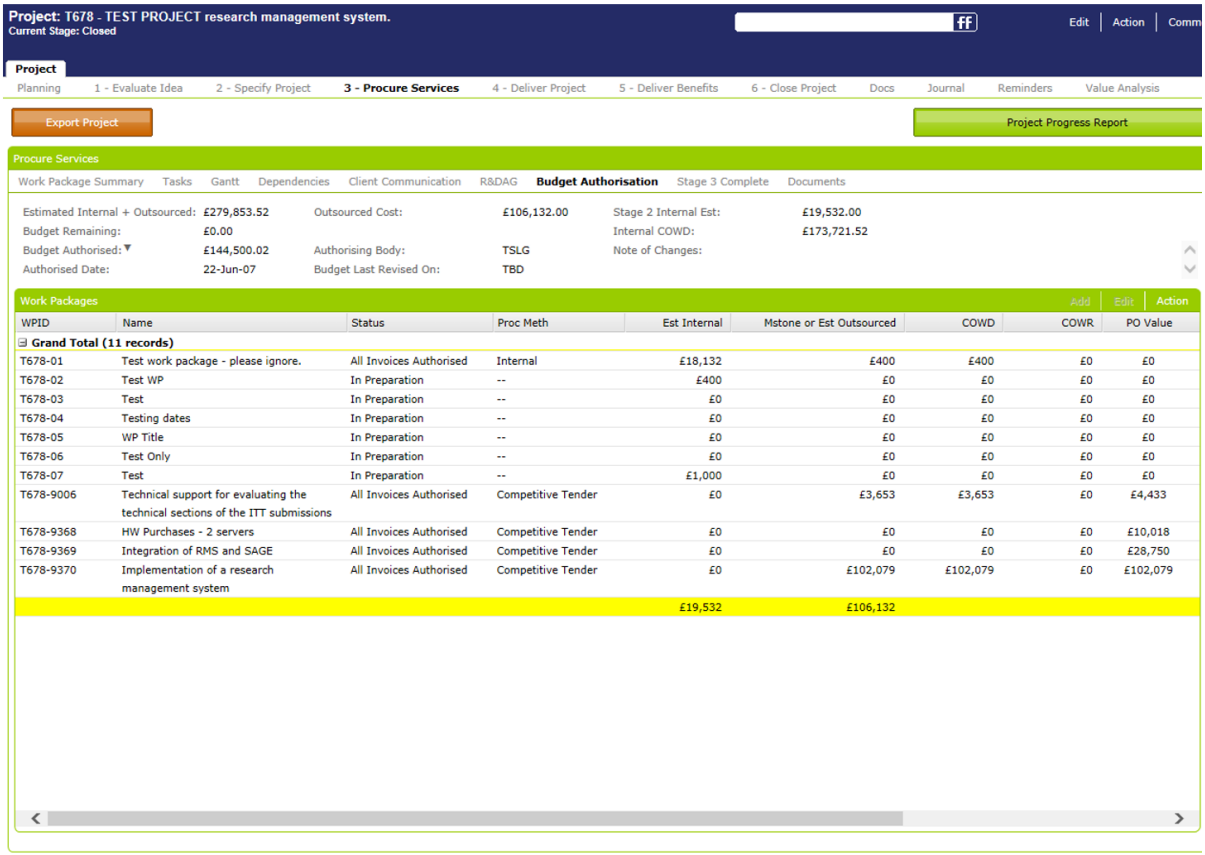
Work Packages:

This screen is located in stages 2, 3 and 4 of a project lifecycle, and lists all the work packages that have been created for the project. The work packages represent a specific item of work and can be delivered internally or externally. Externally delivered work packages have an associated purchase order.



WPID	Work Package Name	Proc Method	Status	Est Ext Cost	Est Int Cost	Est Start	Est End	Authoriser
T678-01	Test work package - please ignore.	Internal	All Invoices Authorised	£0	£18,132	14-May-13	22-May-13	Shelton, John
T678-02	Test WP	--	In Preparation	£0	£400	TBD	TBD	Shelton, John
T678-03	Test	--	In Preparation	£0	£0	TBD	TBD	Shelton, John
T678-04	Testing dates	--	In Preparation	£0	£0	TBD	TBD	Shelton, John
T678-05	WP Title	--	In Preparation	£0	£0	TBD	TBD	Shelton, John
T678-06	Test Only	--	In Preparation	£0	£0	TBD	TBD	Shelton, John
T678-07	Test	--	In Preparation	£0	£1,000	TBD	TBD	--
T678-9006	Technical support for evaluating the technical sections of the ITT submissions	Competitive Tender	All Invoices Authorised	£0	£0	01-Nov-06	09-Nov-06	Shelton, John
T678-9368	HW Purchases - 2 servers	Competitive Tender	All Invoices Authorised	£0	£0	01-Feb-07	02-Feb-07	Shelton, John
T678-9369	Integration of RMS and SAGE	Competitive Tender	All Invoices Authorised	£0	£0	07-Jan-07	30-Apr-07	Shelton, John
T678-	Implementation of a research management system	Competitive Tender	All Invoices	£100,000	£0	04-Dec-06	31-Mar-09	Shelton, John

This screen is information and lists the underlying work packages.



The system **must** be able to record budgetary approval status for each of the work packages, with summary costs against each work package.

The solution **could** capture and prioritise possible areas of activity or early suggestions for research (current R&D 'stage 0').

The solution **must** capture various early stage details and dates after registration of idea (currently R&D 'stage 1').

The Value Analysis section is primary utilised for two purposes:

a) To enter scores for an idea (usually following an idea development meeting) against a pre-set criterion to record a score for project attractiveness

b) To enter scoring following a post project review

The solution **must** support this analysis.

The solution **must** have the ability to be able to reject/cancel an idea/project, and record the type of rejection/cancellation and reasons why.

The solution **must** have the ability to capture details and dates (including internal and external cost estimates) to develop the idea into a project (currently R&D 'stage 2').

The solution **must** capture Cost Benefit Analysis information, Investment Committee information and key stakeholder information.

The solution **must** procure resources to perform the specified work, delivery method, assign spend against approved budget, capture dates and details (currently R&D 'stage 3').

The solution **must** ability to specify agreed pieces of work and record expected start and end dates and spend. Currently milestones are recorded against work packages in RMS and projects in RMS-C.

The solution a set of system generated records to see forecast spend, and record actual spend, cost of work done (COWD) and accruals.

The solution **must** monitor and record project progress, spend, delays, delivery of work, and monitoring of internal time booking (currently R&D 'stage 4').

The solution **should** a process to manage the storage and publication (if applicable) of research materials for the project, through comms, senior management, and sign off.

The solution **should** specify what level of publication is required, create and store documents to record the benefits of the research.

The solution **could** provide on screen reminders within the system to alert users that they have a task to perform in order to progress the project.

The solution **could** provide alerts sent by email to system users advising of a project lifecycle event in the system that may require an action from them.

The solution **could** provide the ability to list lessons learned (both positive and negative) at the closure of a project.

The solution **could** capture the root cause for any delays that deviate from the baseline.

The solution **could** provide the ability to make information more easily understood/interpreted through the provision of visual dashboards and displays (pie charts, Gantts, etc) directly within the system (as opposed to through generated reports).

9.5.2.5. Issues and Risks

Currently an issues and risks register is maintained for each project, the solution **must** provide an issues and lists register, this **must** include status indicators (e.g. traffic light indicators) and should be easily accessible from any stage of the project workflow.

9.5.2.6. Project Purchases

Within the existing system when an externally-delivered work package has been created, a purchase order is created within RMS for the goods or services. This then has to be printed out and taken to the finance & procurement teams who will approve the purchase and enter into Sage.

Throughout the project process, the status of a purchase is required to be updated manually in the RMS system.

The solution **must** provide the ability to create a purchase order directly from a project.

The solution **must** allow a purchase order to follow the standard finance approval workflow.

The solution **must** update the project task status with the purchase order status in real time.

When an invoice is sent to the R&D team from a supplier, they require the ability to monitor the status of the invoice.

Within the new solution, the project delivery team **must** be able to access the supplier information, overdue invoices and an intended payment date for the invoice to allow them to communicate back with the supplier where required.

9.5.2.7. Resource Planning

Resource & capacity planning isn't managed by RMS or by the R&D team. In many cases the R&D research and output are outsourced to external resource and the R&D Delivery Manager facilitates this work whilst tracking the costings and progress within RMS.

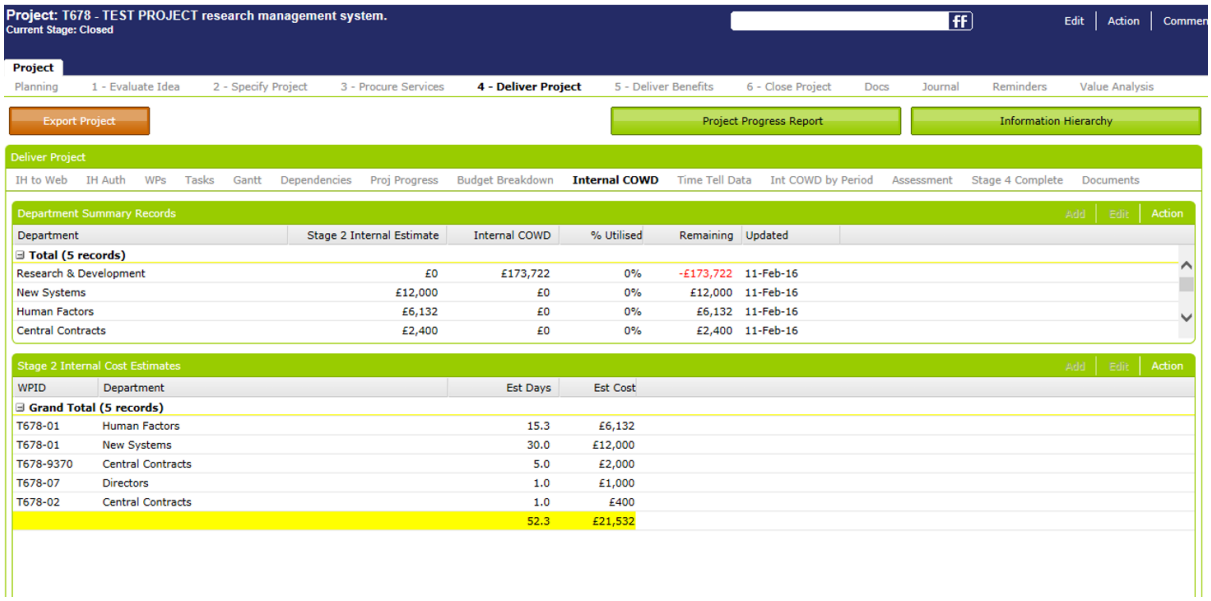
Projects that are delivered internally are resourced through the standards team, where the capacity and resource management is carried out by Project Server. The requirements for this planning exist within the standards section of this document.

9.5.2.8. Monitoring

As purchase orders are raised, invoices are received and paid, the status of these documents **should** be available through the summary screen and be visible to the delivery manager.

During a project, the delivery manager for R&D will monitor the Cost of Work Done (COWD). The COWD figures are tracked in RMS and provide a summary at a glance of the following information:

- Internal Estimate
- Internal COWD
- % Utilised
- Remaining (Amount)
- Updated (Last updated date)

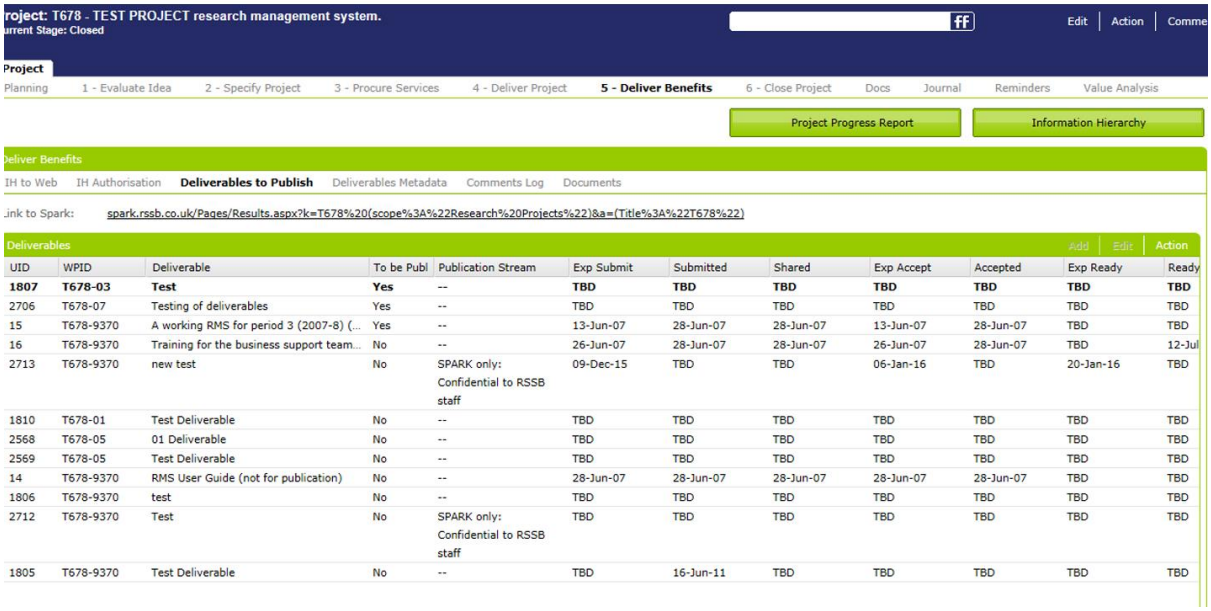


The COWD screen is supported by a project progress report. Information related to the way this summary data has been created can be drilled back through the dashboard to see the details.

The solution **must** provide a summary screen for the project that houses a dashboard for cost of work done.

The Deliverables to Publish Screen holds information for deliverables for each work package. Against each deliverable there is a series of dates to record the various stages of each deliverable, the dates are recorded as follows:

- Date Expected to Submit
- Date Submitted
- Date Shared
- Date Expected to be Accepted
- Date Accepted
- Date Expected to be Ready
- Date Ready



UID	WPID	Deliverable	To be Publ	Publication Stream	Exp Submit	Submitted	Shared	Exp Accept	Accepted	Exp Ready	Ready
1807	**T678-03**	**Test**	**Yes**	--	**TBD**	**TBD**	**TBD**	**TBD**	**TBD**	**TBD**	**TBD**
2706	T678-07	Testing of deliverables	Yes	--	TBD	TBD	TBD	TBD	TBD	TBD	TBD
15	T678-9370	A working RMS for period 3 (2007-8) (...	Yes	--	13-Jun-07	28-Jun-07	28-Jun-07	13-Jun-07	28-Jun-07	TBD	TBD
16	T678-9370	Training for the business support team...	No	--	26-Jun-07	28-Jun-07	28-Jun-07	26-Jun-07	28-Jun-07	TBD	12-Jul
2713	T678-9370	new test	No	SPARK only: Confidential to RSSB staff	09-Dec-15	TBD	TBD	06-Jan-16	TBD	20-Jan-16	TBD
1810	T678-01	Test Deliverable	No	--	TBD	TBD	TBD	TBD	TBD	TBD	TBD
2568	T678-05	01 Deliverable	No	--	TBD	TBD	TBD	TBD	TBD	TBD	TBD
2569	T678-05	Test Deliverable	No	--	TBD	TBD	TBD	TBD	TBD	TBD	TBD
14	T678-9370	RMS User Guide (not for publication)	No	--	28-Jun-07	28-Jun-07	28-Jun-07	28-Jun-07	28-Jun-07	TBD	TBD
1806	T678-9370	test	No	--	TBD	TBD	TBD	TBD	TBD	TBD	TBD
2712	T678-9370	Test	No	SPARK only: Confidential to RSSB staff	TBD	TBD	TBD	TBD	TBD	TBD	TBD
1805	T678-9370	Test Deliverable	No	--	TBD	16-Jun-11	TBD	TBD	TBD	TBD	TBD

Timesheets are recorded by the R&D team in Timetell. Currently time isn't recorded against the work packages but at a project level. The solution **must** allow timesheets to be allocated at a work package.

9.5.2.9. Document Management

Project documentation is held directly in RMS and RMS-C. Specific documents must be uploaded to RMS (for example, final business cases, project deliverables, supplier reports, etc.). Project materials are also held on RSSB's network drives.

Currently project deliverables are published in Spark (the rail knowledge sharing solution built on SharePoint). The solution **should** allow an indicator to exist on a project to show deliverables that have been published in Spark but linked through to a project in the jobs module.

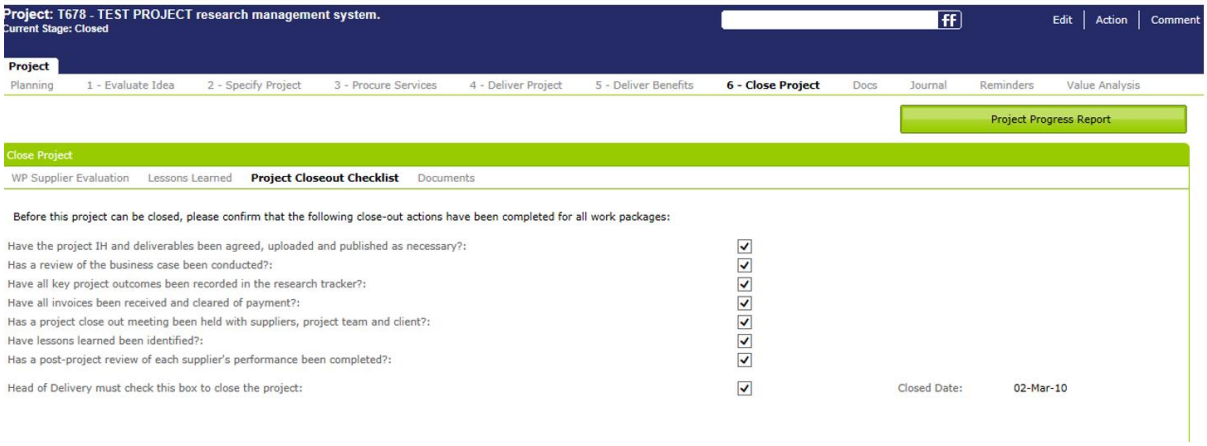
Spark holds additional project information about the project. RMS holds the project and financial data and spark holds additional information that is outward facing.

The solution **should** allow an integration to an additional set of project attributes held in the Spark system.

9.5.2.10. Closing Projects

There currently is a screen within RMS with a check list for project closure. There is a list of options defined that allows a user to check off the required stages to allow a project to be closed.

The solution **must** allow a user defined list of tasks where all options must be checked before a project is able to be closed.



9.5.2.11. *Project Audit*

RMS has the ability to track the changing of values and records throughout the process. When a user (including the system) changes a specific record or field it is recorded in a table that can serve as a data repository for investigation or reporting during the process.

The solution **should** record data changes at a table and field level for all areas of the system. There **should** be a standard report that can produce this data in a formatted and clear way, either as a PDF / paper report or an export to an Excel Spreadsheet.

9.5.2.12. *Reporting*

There is a large reporting requirement within the R&D team. Reports are sent to a variety of internal stakeholders as well as being required by government bodies (DfT) and certain client groups. One of the key requirements for reporting is to allow reports to be scheduled and automatically created for certain user groups.

The solution **must** allow the scheduling and delivery of reports to groups of internal and external users.

Reports **must** be generated to support Department for Transport (DfT) reporting. These reports are generated quarterly and contain all aspects of the project delivery. Currently RMS does not automatically generate quarterly reports for DfT, however, RMS provides much of the supporting data

Detailed reports are also sent to System Interface Committees (SICS) and other client groups. Report packs should be created with ease and up to date information. Currently the RMS system allows data to be exported into a presentable format and delivered to these client groups.

There are a number of large key report packs that are delivered internally. An example of one of these reports is embedded below:

PRG P11.pptx

The delivery managers create a reporting pack known internally as PRG. The PRG report is sent to senior department heads and highlight any health issues that may occur within a project. These are created for each period in a year (RSSB operate on a 13 period accounting calendar).

The system **must** be able to provide the information within the PRG reporting pack in a formatted and clear way in an editable format, this should allow the report pack to be easily imported to a PowerPoint deck.

The solution **could** allow these reports to be viewed via business intelligence dashboard providing self-service analytics for the project information.

9.5.2.13. Integration

With the delivery of a fully integrated ERP, there are no integration requirements for R&D other than the use of consistent data flowing end to end through the system. Purchase documents for example **should** be visible as approved or paid immediately once they have been updated in the finance system.

10. CIRAS

10.1. Overview

CIRAS is a confidential reporting service that covers the entire Rail industry. CIRAS is a subscription service that allows its members to place reports, in confidence with anything related to the safety and standards of the railway. CIRAS will deal with a report on behalf of the member in strict confidence and ensuring anonymity is maintained. The business may become a separate legal entity to RSSB and RDDS in the future

Membership of CIRAS is mandated by Network Rail for all Sentinel Trackside Sponsors. Failure to demonstrate CIRAS membership at annual audit or annual data refresh can result in suspension from operating “On or Near the Track” unless rectified within specific time limits.

The team is broken down into three departments:

- Membership
- Reporting
- Finance

There are 15 employees of CIRAS.

Due to the nature of the CIRAS, one of the main concerns of the team is related to security of the data within the system. It is essential that the confidential information from CIRAS relating to reports are segregated from any other parts of RSSB.

Membership levies are set by the CIRAS Committee on a yearly basis. The CIRAS committee is a board of key people from the transport network (TFL, Network Rail, etc.).

Membership is applied for via a web questionnaire. The questionnaire covers what products & services are sold and asks for the annual rail turnover of the business. The annual rail turnover of the business currently decides what level of levy the business membership will be priced at.

Maintenance of memberships and creation of membership invoices is currently a completely manual processes. This involves Excel, Word and Email.

The CIRAS Sales Ledger process is labour and time intensive and the new system should allow a joined up, efficient process for carrying out this task.

These requirements cover the finance aspect of CIRAS. The finance team within CIRAS are responsible for generating invoices for the members on a yearly basis.

The RSSB team are responsible for the statutory financial reporting and accounting for CIRAS.

10.2. Users

The table below breaks down user and employee metrics for licence pricing and implementation costs. The table is broken down into the following sections:

Section	Description
Full System Users	Full System users are raising & processing orders, carrying out posting activities and would spend most of their working day within the system
Light System Users	Light users are sporadic or basic users; they raise simple orders or make enquiries into the database for information. Light users have unlimited read only access but are limited to the write abilities.
Timesheet Users	Timesheet users who will only enter timesheets and do not fall into the Full or Light user category. Any Full or light users who produce timesheets should not be counted again
Reporting Users	Users who carry out advanced reporting or analytics functions within the team but don't access the ERP System.

Full System Users	System Light Users	Timesheet Users	Reporting Users

10.3. Current Solution

Currently the CIRAS team operate between Excel spreadsheets holding membership and levy data. Invoices are currently created in Microsoft Word and sent in a PDF format to the members using mail merge from the spreadsheets. The finance team are using a separate financial company in the RSSB Sage database for bookkeeping and accounts. At the end of a financial period, Excel spreadsheets are uploaded to Sage to upload invoices, Credit notes & Cash Receipts.

A number of reports are produced by the CIRAS team but are currently excel driven.

The CIRAS team run events which for which manual invoices are created for. These are created in word, again using mail merge and then are emailed out from a CIRAS finance email address. Customers can either then pay by Cheque, BACS or Credit Card (via the CIRAS website)

10.4. Current System / Process Pains

The biggest issue with CIRAS is having to manage the membership database in Excel. The team are looking for an improvement to this process.

10.5. Solution Requirements

10.5.1. Finance

10.5.1.1. Multi-Company

CIRAS is currently the same legal entity as RSSB, but is a segregated business. The business may be separated into its own limited company in the future. It is felt that due to the sensitive nature of the CIRAS data, and the reporting requirements and legal structure that the CIRAS company could be a separate company entity in a new system database.

The solution **must** support a multi-company environment where transactional, master and setup data can be configured per company but within the same database.

10.5.1.2. Inter-company transactions

If CIRAS was to be configured as a separate company, there may be situations where a cross charge is required between companies. The solution **must** support a simple and efficient way of posting sales, purchase and general ledger transactions between companies.

The system **could** allow intercompany transactions to be processed automatically in the receiving database once being approved by an authorised user without further manual intervention.

10.5.1.3. Customer Master Data

Member specific data will be held in the RSSB CRM system, but some information may be required for financial reporting & segmentation purposes.

CIRAS categorises their members by a number of different parameters. An example of this is a membership type (TOCS and FOCS). The solution **must** allow for the customers to have user defined attributes for filtering, segmentation and reporting purposes.

Levies and billing amounts will be defined outside of the new system, however it would be advantageous to hold the last levy amount and the turnover categorisation. as a field on the Customer Master Data Record for reference. This information is also used for credit control where the customers with the highest turnover are approached first. The system **should** support the ability to add a decimal field to hold the last levy amount from the previous billing cycle and **should** support the ability to house the turnover threshold/banding of a company.

10.5.1.4. Membership Management

Management of the CIRAS members are will be carried out in the CRM application, this will involve storing specific attributes about the memberships, Levy information and contacts attributed to companies that are a member.

The CRM application will require notification, or visibility of certain aspects of the financial status of a customer. The customer may have an overdue balance, have invoices that are in dispute, or on hold, or be over their credit limit.

The solution **should** be able to pass this data on a regular basis to update the CRM system via an API.

10.5.1.5. Membership Billing Cycle

The CIRAS team are billing customers on a yearly basis. The volume of transactions for CIRAS are high, there are around 1500 members of CIRAS.

When billing is carried out, a spreadsheet is created with the billing information in. From the spreadsheet, the invoices for levy billing are created manually in Word using a mail merge document and saved as a PDF.

Due to the high volume and varying criteria for Levy calculation it is felt that the generation of the Levy values would continue to be calculated in Excel, but based on data exported from the CRM system. The new finance system **should** support the import of the Levy information directly into the software and allow Sales Invoices to be created from the information. Sales invoices **must** be able to be batch posted and distributed via email.

The system **could** have the ability to hold levy information and allow a flexible set of rules to generate a monthly billing cycle based on a customer type, start & end date and a Levy amount. This functionality would bring value to CIRAS if it was available as standard functionality.

The system **could** allow a membership billing cycle to be cancelled and re-run for any period if a batch of Levy invoices were incorrect.

The solution **should** allow a customer, or group of customers to be filtered for invoice production.

Periodically CIRAS will distribute renewal letters to their members. The renewal letters are send and stored as an interaction. Replies to this information either via email, fax, telephone or post could be logged in the new finance system if required and the functionality wasn't available in a CRM system.

10.5.1.6. Invoicing

Sales invoices **must** be controlled by a flexible approval workflow. Accommodating a multi-level approval hierarchy and supporting delegates where approvers may be “out of office”. The solution **must** support the ability to create a financial invoice for Levies. The invoices should be able to be sent to a customer in a number of ways, Including but not exclusively:

- Printed
- Email
- Faxed
- Batched by any of the above

The solution **must** hold a pivotal view of the customer, with the ability to view and report on various information about that customer. This would include the ability to view open, outstanding and overdue invoices, previous financial transactions and payment history.

The solution **could** provide a view of data that was linked to the membership information that exists in the CRM product via a database view or an integration.

10.5.1.7. Sales Requisitions

CIRAS and other areas of the business require ad-hoc invoices to be created for various activities. The system should support the ability for other employees of the business to create a Sales Requisition (Sales quote or order). The sales requisition will instruct the finance team to raise sales invoices.

The sales requisition **should** be controlled by a flexible approval workflow. Accommodating a multi-level approval hierarchy and supporting delegates where approvers may be “out of office”.

10.5.1.8. Events Invoicing

CIRAS plan, and run events for their members that are currently organised through the Seavent Application. This handles the planning and billing of events. Members are able to register for events on a web site and are then able to pay using a number of online payment methods, including credit card and PayPal. Once the payments are processed a report is sent to the finance team where a cash receipt would be entered into Sage.

The solution **should** be able to provide an external application access to an open API to allow the Seavent Software to populate Cash Receipt information into the new finance application.

The system **should** allow a notification or prompt for a member of the finance team to create an invoice for the sales requisition.

The system **must** allow Sales invoices to be raised for Services and should allow a simple action to be carried out to create the Sales Invoice from the Requisition, without the document needing to be rekeyed to reduce resource overhead and data entry errors. Service invoices may be ad-hoc invoices

that are raised for various purposes (Room hire for example). Service invoice lines **must** be able to support a quantity, price and amount.

10.5.1.9. Credit Control

The CIRAS Team are responsible for the credit control of their department. Credit control information is currently held on an excel spreadsheet which contains an aged debtors list and other information around the customers that the team can use to carry out the credit control function.

The solution **must** provide standard credit control functions, allowing a pivotal view of the customer and easy access to see all invoices, credit notes, outstanding payments, on hold payments, overdue balances and user comments in a single view.

The solution **must** be able to produce a flexible Aged Debtors Report, with the ability to filter on specific types and ranges of suppliers. The system **must** be able to export the Aged Debtors report to excel. The report **must** be able to provide the team with accurate, real time information including the following:

- Supplier Name
- Flexible Aging Periods
- The ability to run for a specific start and end date (even if historical)
- Visibility of payments not yet allocated

The CIRAS team work through the spreadsheet and whilst communicating with the customers will update the spreadsheet. They solution **must** allow for multiple users to carry out credit control activities at the same time, allowing comments and statuses to be changed in real time to prevent multiple users following the same account.

When credit control actions are carried out, the users require the ability to capture information about the case or account. This would include:

- Comments related to the conversation
- Follow up Tasks with the ability to flag a due date
- Promised Payment Date
- Next Chase Date

This functionality will be covered with the CRM product.

10.5.1.10. Reminder Letters

CIRAS currently produce reminder letters for members where the levies are overdue. Reminders are currently sent out as a multi stage process and the letters contain different content based on the stage of the reminder.

The solution **must** have an area of the system where a reminder letter template can be created. Reminder letters should be flexible and allow a mail merge style document or free text to be stored in a system to allow these letters to be produced on company branded stationary and for the user to decide what database data is pulled through from the database.

The solution **could** produce documentation automatically with no user intervention.

The solution **must** support the ability to issue reminder letters directly. The reminder letters **should** be flexible in their delivery method; these should include:

- Email
- Printed

The solution **could** produce the reminder letter in Word using a mail merge template.

The solution **must** allow reminder letters to be issued as a batch, allowing filtering based on customer groups, types and attributes to decide which reminder letters should be issued.

Different reminder letter templates are currently held for different types of member, some smaller members will be sent reminder letters that may be more supportive and lenient, where as some of the larger members letters will be firmer.

The solution **should** allow multiple reminder templates to be created and allocated to specific members or groups of members, these templates should allow specific text to be configured for each one that will appear on the reminder letters when generated.

When a member or customer responds to a reminder letter via email, it would be nice to have the email logged with the message stored against the member in the system.

The solution **could** allow email logging functionality to capture inbound emails and to store the information against the contact in the system. The solution **could** flag captured inbound interactions to be reviewed by a member of the team.

10.5.1.11. Statements

The CIRAS team produce customer statements on a period basis to inform members and customers of outstanding invoices and due payments. The requirements around statements are understood to be basic.

The solution **must** allow the production of customer statements.

The solution **should** support standard delivery methods for customer statements:

- Email
- Printed
- Emailed as a batch

The solution **should** support the automatic issue of customer statements on a periodic basis.

Regularly issuing customer statements will aid in the improvement of cash flow whilst reducing the amount of manual intervention.

10.5.1.12. Cash Receipts

The CIRAS business receives payments directly into its own bank account but payments for CIRAS also end up in the RSSB Bank account.

The solution **should** support multiple bank accounts. The system **should** also support the ability to reallocate, or move a payment from one bank account to another.

On a daily basis a member of the CIRAS team will download a statement from the bank and will manually enter the cash receipts directly into the sage system. At peak times when a membership run is due, transactions could be around 50-100 per day and there is a higher risk of data input error.

The new system **should** support the ability to import a cash receipt journal from an excel spreadsheet that has been generated by a bank statement, and **could** support the ability to import cash receipts directly from the bank account. This would reduce data input errors and reduce the time entering data into the system.

10.5.1.13. Bank reconciliation

The CIRAS team currently carry out the bank reconciliation function for their team. The bank reconciliation is currently carried out manually in Sage. It is felt the requirement around bank reconciliation functionality in a new system is standard and indifferent to any other organisation.

The new solution **should** support the import of bank statements from the CIRAS bank account. The solution **could** support the ability to automatically match these transactions to the payments and cash receipts based on various parameters including:

- Bank reference
- Description
- Transaction Date
- Amount

Automating the bank reconciliation process will reduce data input errors and free CIRAS resource to carry out other activities that may require manual intervention.

10.5.1.14. Expenses

The CIRAS team are currently able to process employee expenses through Sage. The expenses requirements are to provide a simple entry screen where an employee can submit their own expenses, where they are passed through an approval process and received by the finance team who can process the payments. Currently these payments are made through the payroll but CIRAS may require the ability in the future.

Expenses are currently submitted on a spreadsheet form with printed receipts where they are manually entered into the system by the finance team. This is a resource heavy job and automation would be a great benefit.

The solution **must** allow the capture and process of employee expenses, through generation and approval through to process and payment.

The solution **must** support the ability to segregate CIRAS expense transactions from the rest of the business.

The solution **must** support the ability for expenses be able to be imported to a journal from an Excel spreadsheet. This must be user friendly and intuitive.

The solution **could** have functionality to allow OCR and online approvals of expenses through an Employee Expenses Portal.

10.5.1.15. Payroll

CIRAS Payroll is processed by the ADP payroll bureau along with the other areas of the business. The Payroll requirements are covered in the payroll section.

10.5.1.16. Reporting and Analytics

Currently the statutory accounts reporting for CIRAS is carried out by the finance team. The requirements for financial reporting are covered in the Finance section of this document.

The system **must** allow the production of detailed management accounts. Management accounts should be able to be configured by the finance team to represent data in the format they require and allow full filtering by flexible date period, departments & cost centres.

A detailed aged debtors report is required for credit control; the system must be able to produce a detail aged debtors report showing various KPI information.

The system **must** be able to produce year on year reporting for Membership Levies that can be used in the decision for setting the future levies when being planned for the following periods.

The CIRAS team have a desire for a self-service reporting & analytics tool to improve reporting capabilities. This has been covered in the Business Intelligence section of this document.

11. Company Secretariat

11.1. Overview

The Company Secretariat department are responsible for the membership database for RSSB.

Whilst the team function is primarily CRM based, there are a number of functions that include touch points for financial transactions, they include:

- Invoicing of RSSB Members Levies.
- Invoicing of R2 (A subscription to an external system owned and hosted by RSSB -N.B not all members subscribe to this).

RSSB Currently has 68 members. Out of these members, those with a subscription fee of more than £50,000 are invoiced on a quarterly basis, however where the subscription fee is below £50,000, this is invoiced as a single lump sum annually.

The levy calculations are made up of several complex calculations based on membership category and the annual turnover figure of each member provided each year as per the arrangements set out in the RSSB Constitution Agreement. In addition, an RPI calculation is also factored into this each year.

11.2. Current Solution

The existing membership database is currently in Excel. When levies are calculated, the figures are supplied to finance for invoicing, this information is stored in excel before being loaded to the finance system via the Xcelerator tool.

11.3. Current System / Process Pains

There is an element of risk associated with the current procedure for the calculation of the levy. Firstly, the annual turnover information supplied by each member must be recorded accurately, these are very large figures and user error can easily occur. To mitigate this the figures are checked over several times once input into the database. Secondly the calculations set out to determine each category of membership must be accurate otherwise there is a large knock on affect for all other member's levy calculations.

Once supplied to finance invoices are created manually due to the varied payment methods and inclusion of other subscriptions (currently R2). There is then a further amount of risk for errors to be made with this information (including the invoice description and company details).

11.4. Users Requirements

The table below breaks down user and employee metrics for licence pricing and implementation costs. The table is broken down into the following sections:

Section	Description
Full System Users	Full System users are raising & processing orders, carrying out posting activities and would spend most of their working day within the system
Light System Users	Light users are sporadic or basic users; they raise simple orders or make enquiries into the database for information. Light users have unlimited read only access but are limited to the write abilities.
Timesheet Users	Timesheet users who will only enter timesheets and do not fall into the Full or Light user category. Any Full or light users who produce timesheets should not be counted again
Reporting Users	Users who carry out advanced reporting or analytics functions within the team but don't access the ERP system.

Full System Users	System Light Users	Timesheet Users	Reporting Users

11.5. Solution Requirements

11.5.1. Sales

11.5.1.1. Sales Requisition

Member information and details of Levies/Membership Charges will be held within the new CRM system. The CRM System will calculate the levies to be billed and will integrate to the finance system as a sales order, whether the order can be invoiced.

The solution **must** support a flexible API to allow Sales Orders to be created from a 3rd party application.

The solution **must** support a sales requisition at a line level which can provide the finance team with the correct information about the levy.

The system **must** allow the Sales Requisitions to be categorised to distinguish sales between levies, and other income. This must be a flexible to allow for multiple revenue types to be created by a user in the finance system.

Sales requisitions **must** have a way of producing an invoice with minimal key strokes from the Sales requisition.

The Sales Requisition **must** have a way of notifying the finance team of a required action once it has been created.

11.5.1.2. Sales Invoicing

When the membership levies have been processed and a Sales Requisition has been created in the finance system, the next stage will be for the finance team to create an invoice.

Invoices **must** be able to be created, posted and invoiced as a batch routine

Invoices **should** be able to be sent by email, printed or faxed as a batch.

There is a requirement to allow an invoice, and any related financial transaction can be distinguished by the income stream. The solution **must** allow sales invoices to be distinguished by user defined attributes for revenue stream.

11.5.1.3. History & Reporting

Membership levies and payments are a key part of the entire RSSB operation. It is essential that historical levies can be reported on.

Previous levy information is important in the decisions and calculations for future levies. The solution **must** allow access to historic levy information and be able to report at a granular level.

12. Business intelligence

12.1. Overview

Across the entire business, reporting and analytics reports are used mainly within the Projects, finance and membership functions but there is a general lack of an easy to access, consistent and flexible reporting platform for producing key metrics, board reports and project/finance report packs.

12.2. Current Solution

The main solution used by the finance team is InforPM which includes a data warehouse and a tool for producing reports.

The rest of the business generally use Excel for producing reports and analysing statistics. Data is being extracted from multiple sources and may not always be accurate and is open to data corruption from pasting / mistyping.

Smartcore, Sage and the other systems do have their own reporting engines but often the reports are extracted and repurposed for various reasons and reporting requirements.

12.3. User Requirements

The table below breaks down user and employee metrics for licence pricing and implementation costs. The table is broken down into the following sections:

Section	Description
Full System Users	Full System users are raising & processing orders, carrying out posting activities and would spend most of their working day within the system
Light System Users	Light users are sporadic or basic users; they raise simple orders or make enquiries into the database for information. Light users have unlimited read only access but are limited to the write abilities.
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Reporting Users	Users who carry out advanced reporting or analytics functions within the team but don't access the ERP system.

Full System Users	System Light Users	Timesheet Users	Reporting Users

12.4. Solution Requirements

12.4.1. Business Analytics

12.4.1.1. Reporting

The Solution **should** provide standard reports, exception reports, documentation and enquiries which can be tailored to user requirements, saved and re-used.

The Solution **could** have the functionality to build reports and queries from information outside the finance system (e.g CRM, Events Software, Project Server).

The Solution **must** have a flexible reporting tool giving ability to report on any data field held in the system (i.e. if information is in the system, a trained user with appropriate access can report on it).

The Solution **should** have functionality to maintain a library of reports, documentation and enquiries that users can search, to provide an existing or similar design to that needed - which may be copied, amended, saved, used and re-used when required.

The Solution **should** support user defined data updating e.g. real-time, hourly, as and when required.

The Solution **should** include self-service - report/query writer application for users to create, access, view and export their reports. Easy and intuitive to use and modify. This should also ensure there is no possibility of misinterpreting and representing data incorrect data/reports.

The Solution **should** have report creation assistance / formatting including:

- Report design templates/report creation wizards
- Drag and drop, menus and drop down lists
- Move, hide or unhide fields
- Landscape or portrait, control page breaks
- Design boxes, lines, layouts, headers, footers, borders
- Multiple, customisable chart and graphs formats
- Report across modules
- Access data from multiple sources / databases
- Text fields
- Include messages or fields if specific events or conditions occur
- Include / create a table of contents
- Include logos, watermarks, barcodes
- Include notes
- In-report exploration e.g. with filters, sliders, drill down

The Solution **should** have the functionality for users to have a list of "favourites" report for easy access.

The Solution **should** have a flexible report distribution tool: via email, to report portal with notification to distribution list, to printers, etc.

The Solution **could** support report output viewable on mobile devices.

The Solution **should** provide for configurable scheduling of reports so that reports are run/refreshed at defined times and distribution list informed.

The Solution **should** support multiple data export formats.

The Solution **should** have functionality to track report versions.

The Solution **should** have the functionality to "drill down" from the general ledger down to transaction details in sub-ledgers.

12.4.1.2. Dashboards & Data Visualisation

The Solution **should** have the functionality to build interactive, intuitive dashboards, for any part of the business.

The Solution **should** support multiple graphical data visualization methods including charts, graphs, trend lines, histograms, scatter plots.

The Solution **should** have functionality to drill down from dashboard to underlying details

The Solution **should** provide multiple options for building dashboards e.g. preconfigured dashboards, copying dashboards.

The Solution **should** provide for easy export of charts and dashboard data.

12.4.1.3. Drill Down and Searches

The Solution **could** support search across all business systems, databases and archives.

12.4.1.4. Business Activity Monitoring

The Solution **should** have functionality to monitor any type of business activity recorded in the system (number of invoices by types, number of payments, cash receipts, ageing of transactions):

- Number of transactions by types
- Ageing of transactions
- Monitor real-time processes, completed processes
- Monitor end-to-end processes across any system
- Monitor all workflow activities at every step and by user
- Detect process problems and bottlenecks based on defined criteria
- Triggers, detecting specified occurrences or impending problems
- Automated actions and alerts linked to triggers

The Solution **should** have "Out of office" functionality for workflow redirection during absences.

12.4.1.5. Decision Support & Analytics

The Solution **could** have the functionality to create custom analytics from multiple data sources.

The Solution **should** support multiple numbers of cubes, dimensions, hierarchies and aggregation levels.

The Solution **should** provide for flexible and easy build and edit of cubes.

The Solution **could** support multiple sources of data.

The Solution **should** have functionality to aggregate data into one or multiple cubes.

The Solution **should** have functionality to perform complex analytics and scenario planning on large volumes of data.

The Solution **should** have functionality to provide multiple levels of data e.g. summary, consolidated, detail, transactions.

The Solution **should** provide for configurable and flexible data extraction.

The Solution **should** provide for data integrity checks for any imported data.

The Solution **should** provide configurable data loading rules, workflows and frequencies.

The solution **must** provide the ability to report in excel, using real time access to the database with minimal impact on performance for other users.

The solution **could** allow the ability to drill down to base data using the Excel report tool.

13. Appendix 1

Existing Application	System Type	In Scope	Integrated	Work Stream
Project server 2010	Project	Upgrade (Online)	NAV	
Catalyst	SharePoint	Upgrade (Office 365)	CRM	Phase 2
RMS	R & D	Yes		ERP
Lync persistent chat	Lync	Upgrade (Office 365)		
Oak Reporting Server	Phone	No		
Office Web App server	SharePoint	Upgrade (Office 365)		
eReqs Demo	Sage	Yes		ERP
Sage1000 Demo	Sage	Yes		ERP
Exchange Unified Messaging Server	Exchange	Upgrade (Office 365)		
ADFS Server	Identity	No		
Azure AD Connect	Identity	No		
SIC	Safety Search Tool	No		
PINSafe Administration	Identity	No		
Codis	Finance	Yes		ERP
CrystalReport viewer	Finance	Yes		ERP
NLJournal	Finance	Yes		ERP
Bottomline	Finance	Yes		ERP
IBM Doors	Standards??	No		
Isograph reliability Workbench	Safety	No		
RiskVu 3	Safety	No		
Papperless	Finance	Yes		ERP
TimeTell	Timesheeting	Yes		ERP
Ciras Database	CIRAS	Yes	CRM	Phase 1
VersionOne iManager	??	No		
HR Pro (old version)	Open HR	Yes		ERP
ISOgraph License Server	Safety	No		
Blackberry Enterprise Admin	Exchange	Upgrade (Office 365)		
OpenHR	Open HR	Yes		ERP
CDB (Old)	Retired			
Screams	Retired?			
SIDB	Oracle	No		
CDB (New)	Retired	No		
Mimecast Synchronisation Engine	Exchange	Upgrade (Office 365)		
Infor BI Application Studio	Finance	Yes		BI
Infor Performance Management	Finance	Yes		BI
Infor BI Application Studio	Finance	Yes		BI
e-Reqs	Finance	Yes		ERP
Sage1000 Live	Finance	Yes		ERP
Papperless	Finance	Yes		ERP
Team Foundation Server	Development	No		
Infosense work flow	Safety	No		
BACS Client Server		Yes		ERP

SSO Server		Yes		
Identity Server	Identity	Yes	CRM	CRM
Corp Website	SharePoint	Yes	CRM	CRM
SPARK	SharePoint	Yes	CRM	CRM
Tool Sites	.Net Website	Yes	CRM	CRM
Trackoff	.Net Website	Yes	CRM	CRM
PTI		Yes	CRM	CRM
CSR	.Net Website	Yes	CRM	CRM
SMIS/NIR		Yes	CRM	CRM
RISQS/RISAS		Yes	CRM	CRM
Carbon Tool		Yes	CRM	CRM
Digital Rule Book		Yes	CRM	CRM
RMDB	Standards	Yes	CRM	CRM