

Internal Audit Report

Enterprise Resource Planning (ERP) System Review

August 2018

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Wirral Internal Audit Service

Table of Contents

1.	Executive Summary	Page 3
2.	Introduction	Page 4
3.	Audit Opinion	Page 5
4.	Review of Effectiveness	Page 5
5.	Audit Observations	Page 5
6.	Findings	Pages 5-11
7.	Finding & Recommendation	Page 12
8.	Next Steps	Page 13
9.	Action Plan - Recommendations	Page 14
10.	Customer Feedback	Page 15

The matters raised in this report came to our attention during the course of our audit and are not necessarily a comprehensive statement of all weaknesses that exist or all improvements that might be made.

We emphasise that the responsibility for a sound system of internal control rests with management, and work performed by Internal Audit may not be relied upon to identify all system weaknesses that may exist. Neither should Internal Audit be relied upon to identify all circumstances of fraud or irregularity should there be any, although our audit procedures are designed so that any material irregularity has a reasonable probability of discovery. Even sound systems of control may not be proof against collusive fraud. Internal Audit procedures are designed to focus on areas that are considered to be of greatest risk and significance.

From 1st April 2013, new Public Sector Internal Audit Standards came into effect. These replace previous guidance and provide a coherent and consistent internal audit standards framework for the whole of the public sector. Local authorities are required to demonstrate full implementation and compliance with the Standards by 31 March 2018.

1. Executive Summary

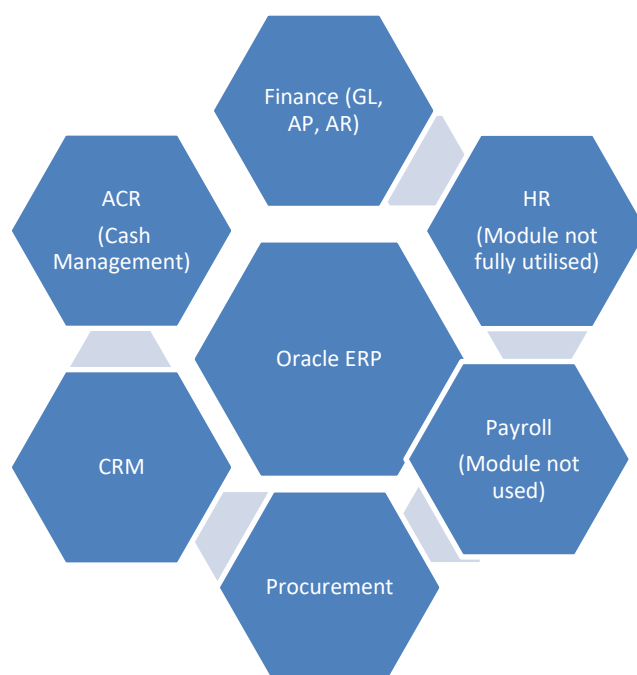
- 1.1 A review of the Enterprise Resource Planning (ERP) system was requested by the Transformation Team as agreed by the Director of Finance & Investment. The review was to provide an independent opinion of the overall effectiveness and efficiency of the system.
- 1.2 In our opinion the system is out dated and unable to provide services as expected in a Digital age. In addition, system functionalities do not comply with General Data Protection Regulation (GDPR), as data cannot be deleted nor can it be assured to be accurate.
- 1.3 We therefore conclude that the system is not fit for purpose and consideration should be given to replacing it or, upgrading to the latest version.
- 1.4 We appreciate that replacing it would be a significant cost to the Authority and resource intensive to cleanse the data, install the system and train the users. However, customer and user expectations have changed, new legislation requirements cannot be met, and the risk of a potential successful cyberattack is high given that patches are not routinely applied.
- 1.5 However, we consider the potential impact of the risks outweigh the costs. A new system should ensure leaner processes (minimise duplication), and provide more efficient services to members of the public, users, partners and suppliers. In addition, we expect it will be compliant with current legislation and provide more data transparency.
- 1.6 Our main concerns with the current system are;
- The inability to delete data.
 - Inaccurate legacy data.
 - Data requires manipulation.
 - The system drives some processes.
 - Inability to raise electronic invoices.
 - Budget managers are unable to run their own reports.
 - Limits some Council services being provided to the public.
 - Processes are duplicated.
 - Resource intensive (managing, maintaining, lengthy processes, training).
 - Non-compliant with Legislation.
 - Security concerns.
 - Reliance on other systems.
 - Unable to make changes.
- 1.7 Therefore, our overall organisational risk opinion is:

Organisational Risk	Major (Red)	A major organisational risk opinion indicates that the likelihood/impact of the risks identified during the review, should they materialise, would leave the Council open to major risk of a fundamental or material nature. This opinion suggests that there are some potentially serious weaknesses in the design and/or operation of the control environment that may have a significant impact on the achievement of systems and or corporate objectives if not addressed.
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2. Introduction

- 2.1 A review of the Enterprise Resource Planning (ERP) system was requested by the Transformation Team as agreed by the Director of Finance & Investment. The review was to provide an independent opinion of the overall effectiveness and efficiency of the system.
- 2.2 This report provides our independent opinion on the ERP 1Business System on whether it;
- Is fit for purpose and effective
 - Provides accurate and consistent management information
 - Provides value for money
- 2.3 ERP refers to systems and software packages used by organisations to manage day to day business activities such as accounting, procurement and HR. ERP systems tie together and define a plethora of business processes and enable the flow of data between them. By collecting an organisation's shared transactional data from multiple sources, ERP systems eliminate data duplication and provide data integrity with a "single source of truth."
- 2.4 The E-Business Suite that comprises of CRM & ERP is an Oracle system. Oracle is a multi-model database management system produced and marketed by Oracle Corporation. The Oracle version currently in operation in Wirral is version (V11.i) and no longer supported by Oracle. We understand that around five years ago, a decision was made not to migrate to the latest version as it was believed that better value for money could be achieved if an alternative supporter was investigated. As a business critical system the cost/contract information is licensed in perpetuity.

Figure 1



3. Audit Opinion

- 3.1 The significant nature of some of the risks including the financial penalties for non-compliance with GDPR lead us to an organisational risk opinion of Major.

Organisational Risk	Major (Red)	A major organisational risk opinion indicates that the likelihood/impact of the risks identified during the review, should they materialise, would leave the Council open to major risk of a fundamental or material nature. This opinion suggests that there are some potentially serious weaknesses in the design and/or operation of the control environment that may have a significant impact on the achievement of systems and or corporate objectives if not addressed.
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4. Review of Effectiveness

- 4.1 We found the system does not utilise resources effectively and is not being utilised to its full potential.

5. Audit Observations

- 5.1 PDG Consulting Ltd currently has the contract to support the ERP system. The end contract clause with PDG Consulting Ltd is January 2019.

6. Findings

Background

- 6.1 The ERP system was installed in 2004 and is currently running on version 11.1 but this version is now unsupported by Oracle. ERP has the modules as detailed in Figure 1, however not all modules are currently being used by Wirral, for example Payroll uses ResourceLink. The Human Resources module is not fully utilised and this can cause issues with the hierarchy set up in the financial and CRM modules. If the HR was fully integrated then users would be removed automatically from the hierarchy when they change roles or leave the Authority. This would also eliminate the need for double entering of HR information into Oracle HR.
- 6.2 At the time the data was provided there are 3771 user accounts. This is a large amount of user accounts to manage when the system should be able to recognise a leaver and notify the relevant system administrator or remove them automatically.
- 6.3 A competitive tender exercise using the Crown Commercial Services Framework to support the system was undertaken. 12 suppliers were invited to participate. Only 2, on time, submissions were evaluated and as a result, the contract was awarded to PDG Consulting Ltd. We did not review this process as part of this review. The contract costs Wirral £75k per annum although; this figure does not include Wirral staffing resources. The contract commenced on 01/01/2016, (the

contract was provisionally set up to run for four years to be reviewed on an annual basis), and the end date of call off extension period is 19/01/2020.

- 6.4 Despite the contract with PDG Consulting Ltd there is also a small team within Digital who support the system. Per discussion with the team this equates to additional resource cost of approximately three days per week.
- 6.5 There are around 200 interfaces used to allow systems to link to the ERP all of which require constant monitoring and management. Interfaces can be subject to cyber-attack and therefore require robust controls to mitigate the risk. Software requires regular patching to fix security concerns and known bugs in the system. Patches are not routinely applied, but are provided by PDG Consulting Ltd when available.
- 6.6 Merseyside Pension Fund has used 'Mutli-Org' Oracle ERP system since 2009. Multi-org architecture is an application server-side enhancement that allows multiple operating units and their relationships to be defined within a single installation of Oracle Applications products. This keeps each operating unit's transaction data separate and secure. The 'Multi-Org' set up was critical in the decision making process for the Pension Fund.

Customer Relationship Management (CRM) Module

- 6.7 CRM is provisionally used by the customer services team for logging complaints, recording requests for bin problems/collections, and other council related services. Some information is sent directly to inspectors and Biffa via CRM to mobile devices, however, if an update note is to be added the team has to send an email as the CRM system doesn't send automatic notifications, therefore reliance is placed on Microsoft Outlook.
- 6.8 Manual notes can be added to the CRM system but once entered they cannot be deleted. This could lead to personal information being given to another person should a subject access request be received. In addition, under GDPR information should be able to be erased under the right to be forgotten principle. We understand as data cannot be deleted CRM is not GDPR compliant. However, there is a project underway to replace it with Firmstep. Firmstep is an e-form solution that is a flexible, intuitive workflow and integration tools that enables the complete automation and administration of internal processes and services.
- 6.9 We were also advised that some of the data is manipulated to give the required results. This could lead to decisions being made using incorrect management information.

General Ledger (GL) Module

- 6.10 This module is used by the Accountancy Team. An exercise was conducted by a member of the team in December 2017 to obtain the views of the system's functionality from other members of the team. Overall, the consensus is that the system is reliable and provides real time information. Although, it is not user friendly and requires lots of 'drilling down' to obtain information on transactions

that is time consuming. In addition, budget holders are unable to run their own reports, this, in our opinion, is fundamental to effective budget management.

- 6.11 Due to its limited functionality spreadsheets are used alongside it for forecasting information, instead of using the reports generated from the system. Reports can easily be run but they required formatting so they are understood and the team spend a lot of time each month producing transactions and formatting them in Excel. The risk of errors and mistakes when using spreadsheets can lead to incorrect financial information being used for decision making that could result in financial and reputational damage to the Authority. The GL module does not link in to the Payroll System and reliance is placed on managing table between systems.
- 6.12 Merseyside Pension Fund (MPF) also use GL under a 'Multi-Org' set up. The 'Multi-Org' set up was critical in the decision to move to Oracle in 2008, due to the requirement to maintain control over the system, maintain separate records and prepare its own statutory Financial Statements. The system went live in 2009 and the benefits of reviewing and revising its chart of accounts resulted in a more user friendly system than their previous system (Axis). Merseyside Pension Fund recognises that whilst benefits have been gained the system is still with frustrations. The GL interfaces with the Pensions Administration System.

Accounts Payable (AP) Module

- 6.13 This module is used by the Payments Out team in Customer Services. Again, the system prevents deletion of data and as a result supplier names, addresses and bank details remain on the system some of which dates back to the date the system was installed.
- 6.14 We were also advised that some processes are extremely time consuming and as such are a resource drain, particularly as the team consists of a high number of fixed term members of staff and therefore has a high turnover of staff. In addition, the team are unable to provide some services to the public such as being able to provide ten monthly instalments for the garden waste bin fee. It is believed should this service be available more residents would sign up to the service and this could result in more income being generated for the Authority.
- 6.15 We understand that training new members of staff and maintaining of the user manual is undertaken by the senior managers. Again, this can be very time consuming and it is not a cost effective use of senior managers' time.
- 6.16 Merseyside Pension Fund procures goods via Wirral's iProcurement module and as such these invoices are paid by Wirral's Payment Team, but there is no electronic interface with MPF Oracle GL. MPF pay contractual invoices through their electronic banking system. As a result MPF Oracle GL 'Multi-Org' is the only complete record for MPF expenditure; however MPF is subject to a separate external audit.

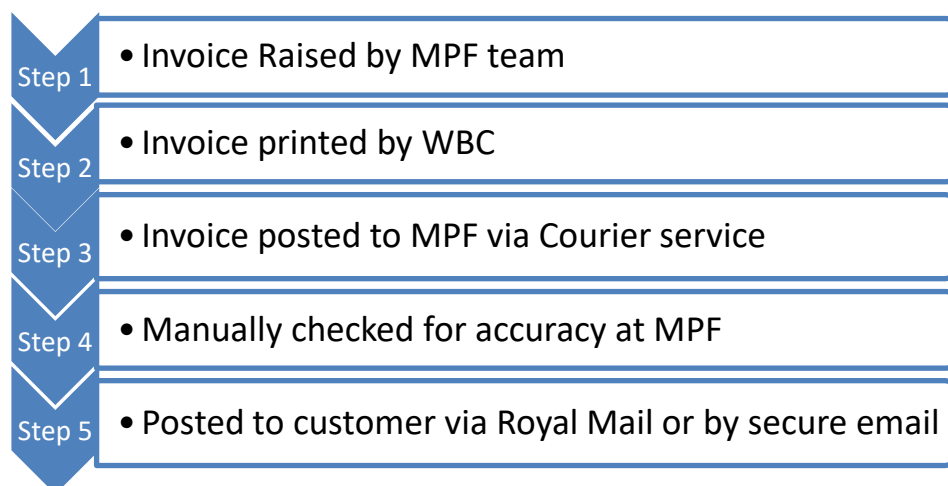
Accounts Receivable (AR) Module

- 6.17 This module is used by the Income and Debt Management Team for raising invoices for Wirral Council services such as Social Care, Allotments etc. The

system doesn't interface with the web services available to members of the public. In addition, requests for an invoice to be raised are done using a proforma, emailed to the team and saved on the shared drive. The system should be able to do this process internally. Some processes are system driven and require a number of workarounds. Data also requires manipulating to obtain the required results and manual over-rides are necessary. Processes are time consuming and resource intensive. In addition, the system does not have the capability to issue electronic invoices that would speed up the process as expected in the Digital era.

- 6.18 Merseyside Pension Fund also use this module, however, there is no electronic interface with MPF Oracle GL. Cash collected for invoices into Wirral Council bank account relating to MPF is paid to MPF's bank account weekly. Invoices require manual holds to prevent a reminder being issued as the current recovery periods are not appropriate for the business; there is also a risk a reminder will be issued before the invoice is issued as there are additional steps in the process.

Figure 2



- 6.19 A proforma is completed by a member of the MPF team and sent to another MPF team to apply the hold. We understand discussions have been conducted between MPF, AR and the Digital team to modify the system, including setting up recovery periods appropriate for MPF debt; these discussions have been put on hold with the knowledge of change. With 784 invoices raised during 1 April 2017-31 March 2018 this is a very resource intensive and time consuming process. If the proforma takes two minutes to complete, then a further two minutes for another person to apply the hold, this could use around 52 hours of resource time a year.
- 6.20 The system is unable to issue electronic invoices as expected by most companies. The payment of the invoices is also confusing and resource intensive as payments must be made to Wirral Council and not direct to the MPF (who legally are required to have their own bank account and funds separate from Wirral). Payments to Wirral's bank account is indicated on the invoice however, some companies that pay MPF direct, for example, for pension contributions, pay MPF direct for invoices raised too, in error. Should the payment of invoices be paid into MPF then a payment is made to Wirral Council,

then the following Wednesday the payment is made back to MPF. This is not efficient or effective. MPF has also expressed concern that monies paid to Wirral in relation to MPF invoices have been allocated to Wirral invoices in the past.

MPF have expressed the importance of them being included when deciding on a new system as they have specific unique requirements to ensure the system meets regulatory requirements.

iProcurement Module

6.21 This module is used by the Procurement Team, purchase order requisitioners, approvers and purchase coordinators out in the business. At the time of the review there are:

- 510 requisitioners,
- 239 approvers,
- 30 purchase coordinators

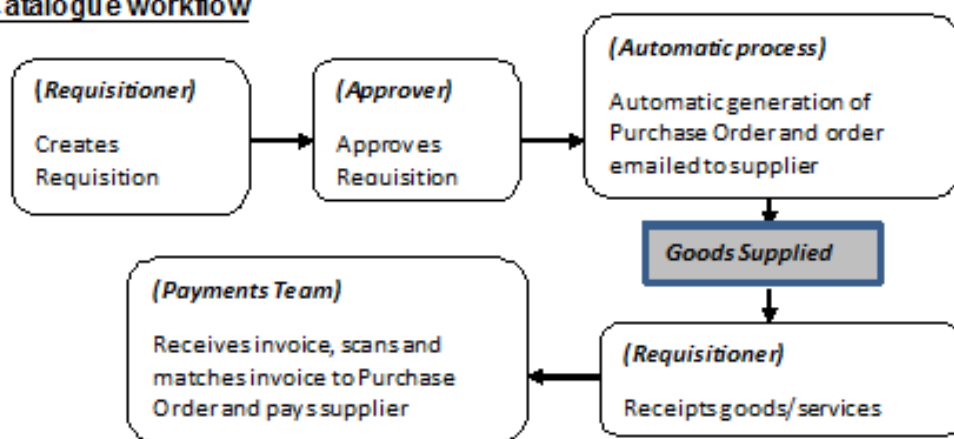
The purchase coordinator function is currently being centralised within the Procurement team and will no longer be conducted by the departments.

6.22 There are two types of orders available:

1. **Catalogue** – Items in the catalogue appear on iProcurement’s online catalogue when the Corporate Procurement Team has already established a contract with the individual supplier, and these are generally called either a corporate contract or a framework contract.
2. **Non-Catalogue** – For items not available in the online catalogue.

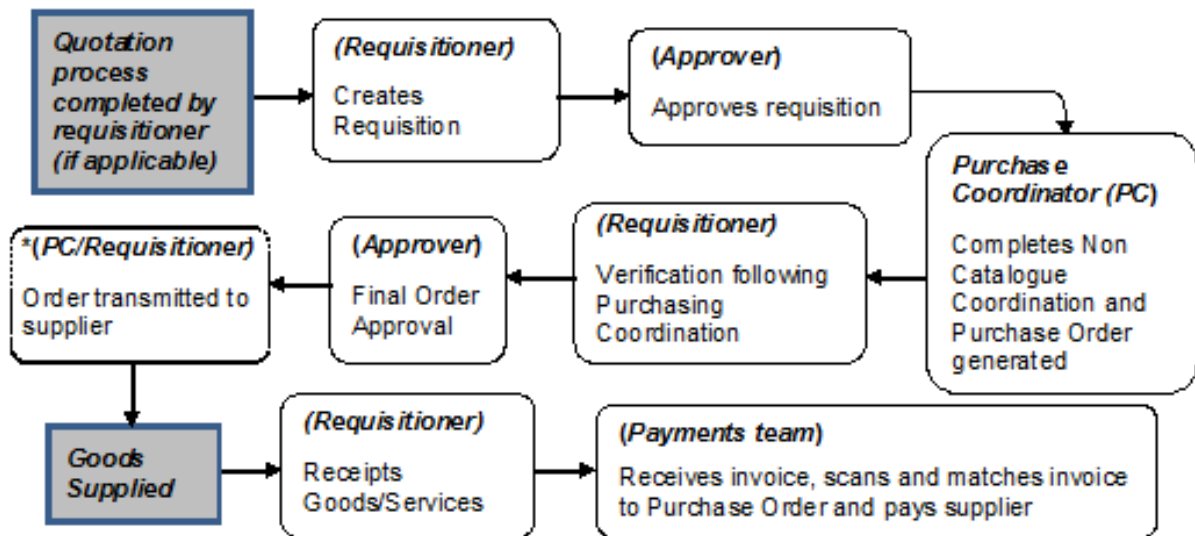
6.23 The process maps below show the stage of each of the two types of order.

Catalogue workflow



6.24 The process for ordering catalogue items is as expected. The system is set up to send email notifications to approver once the requisition is completed. Once the order is approved by the approver the order is emailed to the supplier, the system is pre-set to send a reminder for goods to be received in 7 days. The system allows this date to be amended when required. Once goods are received by the requisitioner and the supplier has sent the invoice in, the Payments team is able to undertake their checks, matching the invoice against the receipted order and pay the supplier when due.

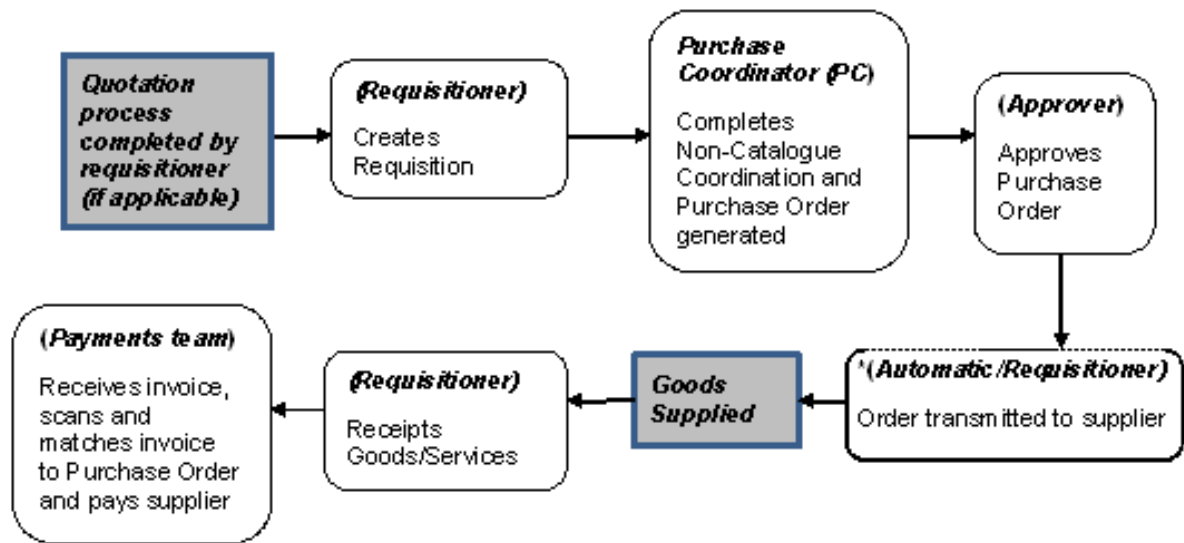
Non-catalogue workflow



- 6.25 The process for ordering non-catalogue orders is longer than necessary. Orders are requested by a requisitioner, a notification is sent to the approver via email. The approver either logs into the system or approves the order via the email notification. An email is then sent to the purchase coordinator who checks compliance with the Contract Procedure Rules (going forward, this role will be completed by the Procurement Team rather than in Departments), once confirmed, the order is sent back to the requisitioner then the approver and the process is repeated.
- 6.26 With 13,224 non-catalogue orders in the financial year 2017/8 the process is resource intensive. For each order, the requisitioner raises the requisition via iProcurement, the approver must in effect approve the transaction twice, once as a requisition and then again when the order has been created after coordination. The requisitioner is also involved in the second approval process as they verify the order before final approval by the approver. The main reason for the second approval process is because the purchase coordinator can amend the order details. The system cannot be amended to change the processes. In context, should the approver and requisitioner process take 2 minutes for each this would result in 881 hours for the year that, in our opinion, is excessive and unnecessary.

6.27 The ideal workflow would be as detailed below, however, as mentioned earlier the system cannot be configured to change it currently.

Non-catalogue workflow



7. Detailed Findings and Recommendations

Ref	Risk and Potential Implications	Findings	Recommendation	Priority Level
7.1	Failure to engage with all stakeholders in a timely manner could lead to user requirements not being met. In addition, mandatory processes require sufficient time to be undertaken.	<p>Based on our findings and risks identified in this report we consider the potential impact of the risks outweigh the cost of replacing or upgrading the system.</p> <p>We are aware that some business areas are keen to implement a new system in the next financial year. Whilst there is still time, we must emphasise that all stakeholders, including the Technical Design Authority (TDA) and Procurement are fully engaged in a timely manner.</p> <p>Discussions around the new system have not yet been considered by the Technical Design Authority, nor have some stakeholders been approached.</p>	<p>The findings and risks included in the report should be taken into consideration when deciding on upgrading to the current version of software available from Oracle, or, replacing it with a new one.</p> <p>A cost benefit analysis should be conducted followed by a feasibility study. The Technical Design Authority, Procurement and all relevant stakeholders should be engaged in a timely manner to identify requirements prior to procuring a new system. This will allow sufficient time to undertake mandatory process in accordance with the Contract Procedure Rules.</p> <p>In addition a business case should be completed that captures the business 'problems', all risks, costs, impacts etc.</p>	Medium

8. Next Steps

8.1 Please do the following in response to the report:

- Evaluate the risks identified and consider whether these need to be included within one of the Council's Risk Registers (at Programme, Directorate or Corporate level).
- Consider your available resources in light of these risks and formulate an achievable plan for implementing the recommendations. This must be an effective method of reducing the identified risk to a level that is acceptable to, and approved by your Directorate Management Team.
- Reflect your plan and any other comments in the relevant columns the Action Plan document in section 10. Return your completed report electronically to Kelly Lacy no later than **21st September 2018**.
- Your feedback is very important to us. Please complete the Customer Feedback form in section 11, and return this with your completed report. We may contact you to discuss this.

8.2 Internal Audit is obliged to:

- Report to the Audit and Risk Management Committee and the Chief Executive any recommendations of high or medium priority that you choose not to agree. The Committee may wish you to attend to explain your reasons for this.
- Undertake a follow-up audit within four months of the date of this report, to obtain evidence of your progress in implementing the recommendations. If you have not implemented recommendations within a reasonable timescale, the Audit and Risk Management Committee and Chief Executive will be notified. It is likely that you will be asked to attend the Committee to explain your reasons for this.

8.3 Thank you for your help and co-operation during the audit. Please contact Kelly Lacy if you wish to discuss the report further.

9. Action Plan - Recommendations

Ref	Recommendation	Priority Level	Agreed Y/N	Plan for Implementation	Expected Implementation Date	Name of Responsible Officer
9.1	<p>The findings and risks included in the report should be taken into consideration when deciding on upgrading to the current version of software available from Oracle, or, replacing it with a new one.</p> <p>A cost benefit analysis should be conducted followed by a feasibility study. The Technical Design Authority, Procurement and all relevant stakeholders should be engaged in a timely manner to identify requirements prior to procuring a new system. This will to allow sufficient time to undertake mandatory process in accordance with the Contract Procedure Rules.</p> <p>In addition a business case should be completed that captures the business 'problems', all risks, costs, impacts etc.</p>	Medium				

10. Customer Feedback

How satisfied were you with the overall service received from Internal Audit? (please ✓ to indicate)							
Very Satisfied		Satisfied		Dissatisfied		Very Dissatisfied	
Please provide any additional comments:							

If you would like to discuss any aspect of this audit, please contact the Chief Internal Auditor.

Completed by: Signed: Date:.....