



Internal Audit Report
Education and Children's Services
IT Change Management Assignment No. 14-15
January 2015

Final Report

Chief Executive's Service
Finance Division
Perth & Kinross Council
2 High Street
Perth PH1 5PH

Internal Audit

Background and Introduction

This audit was carried out as part of the audit plan for 2014/15, which was approved by the Audit Committee on 2 April 2014.

With regard to information technology (IT) and/or information and communications technology (ICT), “change management” involves handling changes effectively and efficiently while at the same time managing the risks associated with change.

According to the Council's ICT Change Management Policy as approved by the Corporate Resources Group in March 2012, “The Council manages IT change constantly and relies on its electronic business systems and the IT infrastructure for the efficient delivery of a wide range of services. The interdependencies of these systems are complex and the result of changes made to one system may have serious consequences for others. A change is defined as anything that transforms, alters, or modifies the operating IT environment or standard operating procedures and has potential to disrupt service delivery by affecting stability and reliability of the Council's IT business systems and infrastructure. The purpose of change management is to standardise methods and procedures for the efficient and prompt handling of changes, ensure all changes to service assets are effectively recorded and optimise overall business risk management.”

Change management is important because the Council depends on IT/ICT systems to deliver public services and to support many back-office activities. As systems become ever more effective, interactive and sophisticated over time, so the risk increases that unless precautions are taken, a change to one system may have accidental knock-on impacts on other systems. Public sector bodies are encouraged to mitigate this risk by applying guidance given in the UK government's Information Technology Infrastructure Library (ITIL), which sets out principles for how change should be managed to deliver business change, transformation and growth. ITIL provides a customisable framework of best practice approaches for organisations to adopt and adapt to their own specific circumstances, to facilitate the delivery of high quality ICT services. Perth and Kinross Council's ICT Strategy has embraced ITIL as the appropriate framework since 2006.

This audit examines implementation of the ICT Change Management Policy.

Scope and Limitations

The audit examined a sample of Changes (Planned, Scheduled, Completed and Emergency); interviewed IT staff; and reviewed electronic files held by the Service and relevant pages on the Council's intranet site in November and December 2014.

Control Objectives and Opinions

This section describes the purpose of the audit and summarises the results. A ‘control objective’ is a management objective that requires the maintenance of adequate and effective internal controls to ensure that it is achieved. Each control objective has been given a rating describing, on the basis of the audit work done, the actual strength of the internal controls found to be in place. Areas of good or poor practice are described where appropriate.

Control Objective: To ensure the adequacy of the arrangements in place for the change management of Information Technology	
Auditor's Comments: The ITIL framework, on which the "ICT Change Management Policy" of 2012 is based, is widely used in the UK public sector and is well suited to the Council's needs. Following approval by the Corporate Resources Group, the IT Service has adopted a pragmatic and flexible approach in applying this Policy, developing an effective Change Management environment. However the audit also identified some specific issues with scope for improvement.	
Strength of Internal Controls:	Moderate

Management Action and Follow-Up

Responsibility for the maintenance of adequate and effective internal controls rests with management.

Where the audit has identified areas where a response by management is required, these are listed in Appendix 1, along with an indication of the importance of each 'action point'. Appendix 2 describes these action points in more detail, and records the action plan that has been developed by management in response to each point.

It is management's responsibility to ensure that the action plan presented in this report is achievable and appropriate to the circumstances. Where a decision is taken not to act in response to this report, it is the responsibility of management to assess and accept the risks arising from non-implementation.

Achievement of the action plan is monitored through Internal Audit's 'follow up' arrangements.

Management should ensure that the relevant risk profiles are reviewed and updated where necessary to take account of the contents of Internal Audit reports. The completeness of risk profiles will be examined as part of Internal Audit's normal planned work.

Acknowledgements

Internal Audit acknowledges with thanks the co-operation of staff in the Corporate IT Unit in Education and Children's Services which was received during this audit.

Feedback

Internal Audit welcomes feedback from management, in connection with this audit or with the Internal Audit service in general.

Distribution

This report has been distributed to:

B Malone, Chief Executive

J Fyffe, Executive Director, Education and Children's Service

A Taylor, Head of Service, IT, Housing & Community Care

K Wilson, Corporate IT Manager, Education and Children's Services

J Symon, Head of Finance, Chief Executive's Service

G Taylor, Head of Democratic Services, Chief Executive's Service

P Dickson, Complaints and Governance Officer, Chief Executive's Service

External Audit

Authorisation

The auditor for this assignment was R D Watt. The supervising auditor was M Morrison.

This report is authorised for issue:

Jacqueline Clark
Chief Internal Auditor
Date: 15 January 2015

Appendix 1: Summary of Action Points

No.	Action Point	Risk/Importance
1	Council's adoption of ITIL	Low
2	Reporting to the Corporate Resources Group	Medium
3	The "Highlight Reports" on Policy implementation	Low
4	Performance information on Change Management	Medium
5	Written procedures for Change Management	Low
6	Evidencing of Change work and user input	Low

Appendix 2: Action Plan

Action Point 1 - Council's adoption of ITIL

According to the Council's Scheme of Administration, paragraph 12.2.7(1), it is for the Strategic Policy and Resources Committee, "To determine and implement the Council's policies in relation to the strategic management of its asset streams in relation to [...] Information systems and technology". In 2011, via Report 11/316, the Committee approved the Council's current overall ICT Strategy.

The Strategic Policy and Resources Committee approved adherence to ITIL by Council services in the ICT Strategy of 2006; a commitment reiterated in 2009. Since then, the Service has considered its commitment to ITIL to be implicit.

However, the ICT Strategy of 2011 does not refer to the decision to follow the UK public sector best-practice guidance of ITIL, on which the Change Management Policy is based. Furthermore, although a new ICT Strategy is being prepared, in its current draft form the proposed new Strategy makes no reference to adherence to ITIL in general or to approval of the Change Management Policy in particular.

Management Action Plan

The draft new ICT Strategy, due to be presented to EOT in advance of submission to Committee, will be amended to clarify the Council's commitment to ITIL principles of best practice.

The ICT Change Management Policy of 2012, although formally titled as a "policy", is primarily a procedural document which sets out how the IT Service should handle changes to Council systems. Its impact on other Services is limited.

Importance:	Low
Responsible Officer:	K Wilson, Corporate IT Manager
Lead Service:	Education and Children's Services
Date for Completion (Month / Year):	September 2015
Required Evidence of Completion:	Note identifying reference to ITIL and/or Change Management Policy in Draft Report proposing new ICT Strategy to EOT

Auditor's Comments

Satisfactory

Action Point 2 - Reporting to the Corporate Resources Group

In March 2012 the Corporate Resources Group approved the ICT Change Management Policy which states at Appendix A that the Corporate Resources Group is, "Responsible for the governance of all issues relating to this policy".

At the time of Policy approval, the responsible Service advised that the operational roll-out of an effective change management environment should be achieved within nine months. However, implementation remains incomplete – for example, many "changes" continue to be handled by processes which have yet to be assessed according to procedures based on the Change Management Policy – but to date no progress report has been provided to the Corporate Resources Group.

Management Action Plan

Given progress achieved to date, it is now timely to provide an update report to the Corporate Resources Group on Policy implementation, to include aspects below.

Once work was under way to embed Change Management, it quickly became clear that the original timetable for Policy roll-out was not realistic; learning from this, a more pragmatic, agile approach was adopted to embed step changes which have incrementally introduced practical, achievable improvements. This is in keeping with the ITIL principles upon which the Policy is based.

In addition, the original timetable did not anticipate a major review and restructure of the IT Service which was undertaken in 2012-13. These factors were known to the Corporate Resources Group and consequently it was not considered necessary to formally report on progress of Policy implementation.

Although some "changes" are handled by processes not yet assessed using procedures based on the Policy, in practice the risk of negative impact is remote since such changes are made using documented, approved low-risk processes.

Importance:	Medium
Responsible Officer:	K Wilson, Corporate IT Manager
Lead Service:	Education and Children's Services
Date for Completion (Month / Year):	April 2015
Required Evidence of Completion:	Copy of progress report to CRG on ICT Change Management implementation, to cover aspects identified above

Auditor's Comments

Satisfactory

Action Point 3 - The “Highlight Reports” on Policy implementation

Since the Policy was approved in March 2012, progress on implementation has been reported to the IT Management Team via “Highlight Reports” submitted by IT staff responsible at approximately monthly intervals.

The audit found these reports were informative but lacked comprehensive explanations for divergence between implementation stages and/or approaches as advised to the Corporate Resources Group and their actual delivery as advised to the IT Management Team. The Service stated that the IT Management Team was made aware of, and approved, such divergence.

Management Action Plan

Given the small and inter-related nature of the IT Service, discussions and instructions have tended not always to be comprehensively documented. Since the audit, the content and format of the Highlight Reports has been revised and improved.

Importance:	Low
Responsible Officer:	K Wilson, Corporate IT Manager
Lead Service:	Education and Children’s Services
Date for Completion (Month / Year):	January 2015
Required Evidence of Completion:	Completed

Auditor’s Comments

Satisfactory

Action Point 4 - Performance information on Change Management

The "ICT Change Management Policy" states at paragraph 7, "The PKC IT Management Team shall identify appropriate Performance Indicators for the IT change management process, which will be recorded and published on the corporate intranet (ERIC) IT performance page to measure and continually improve the effectiveness of this policy and the change management process".

This has not yet been done. Although the Policy specifies that indicators are necessary, it does not specify the form these should take; and ITIL does not specify relevant performance measures. In the absence of such a model, the Service has been working over a period to identify meaningful and useful measures.

Management Action Plan

In recent months, several potential performance measures have been presented to the IT Management Team on various aspects of Change Management. Work is on-going to identify a concise set of metrics and it is envisaged that a set of appropriate performance indicators will be submitted to the Corporate Resources Group, for their decision on future use and communication.

Importance:	Medium
Responsible Officer:	K Wilson, Corporate IT Manager
Lead Service:	Education and Children's Services
Date for Completion (Month / Year):	April 2015
Required Evidence of Completion:	Minutes of CRG meeting evidencing decision on performance reporting

Auditor's Comments

Satisfactory

Action Point 5 - Written procedures for Change Management

In order to be effective in practice, it is essential that the Policy is supported by written procedures for staff to follow, which are authorised by IT management.

The audit found that relevant procedures have not been assimilated into a single, comprehensive, accessible document; and guidance on many aspects is marked as, "Draft". The absence of clarity regarding documented procedures gives rise to a risk that practice may be erroneous and/or vary between employees; the lack of authorisation may result in procedures being applied which are inconsistent with the Policy.

Management Action Plan

The documentation of appropriate procedures is an identified priority, and this is recognised in the periodic "Highlight Reports" submitted to the IT Management Team. Procedures currently marked as "Draft" will be formally authorised.

Importance:	Low
Responsible Officer:	K Wilson, Corporate IT Manager
Lead Service:	Education and Children's Services
Date for Completion (Month / Year):	April 2015
Required Evidence of Completion:	Access to approved, comprehensive procedural documentation (on IT Service share-point site and/or ERIC)

Auditor's Comments

Satisfactory

Action Point 6 - Evidencing of Change work and user input

In order to evidence effective internal control, the electronic case files used to record “change” approvals should be sufficient to provide a clear trail. In addition, a key principle of Change Management is involving users in identifying what changes are needed (e.g., to improve system effectiveness) and in identifying how these changes should be made (e.g., to minimise disruption to service users).

The audit found there is scope for improvement in the recording in electronic files of the work done on managing changes; in particular, with regard to:

- Identifying users’ requirements and needs, and confirming their satisfaction with the end product of the change and how it was carried out; and,
- Integration at practical level of the Policy’s requirements with those of Asset Management, Configuration Management and the Information Security Management System.

Management Action Plan

To date the IT Service has found the recording of consultations and work done to be adequate to Service requirements; but the benefit of better evidencing of these efforts is recognised and measures will be taken to ensure recording is improved.

Service Desk calls are used to record all activities associated with the lifecycle of each individual change. Procedural documentation will be developed to include specific direction for ensuring that any information regarding customer consultation and the outcomes of user testing is properly reflected in the call record.

Importance:	Low
Responsible Officer:	K Wilson, Corporate IT Manager
Lead Service:	Education and Children’s Services
Date for Completion (Month / Year):	April 2015
Required Evidence of Completion:	Copy of revised procedural documentation on user participation in changes and/or relevant written procedure specifying information to be held on file

Auditor’s Comments

Satisfactory