Data Analytics Strategy
2019 - 2022

ARA
AuditRiskAssurance

Gloucester City Council | STROUD DISTRICT COUNCIL | Gloucestershire COUNTY COUNCIL

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(1) Introduction and Vision

Introduction

The volume of digital data received, processed and produced across all organisations is significant and increasing. Consequently the traditional approach to Internal Audit sampling and testing within a growing and complex populace of data requires consideration of alternative testing methodologies to ensure we continue to provide credible audit findings, in line with the General Data Protection Regulation (GDPR).

It is imperative that to maintain effective oversight and confidence in the assurance provided Internal Audit need to adapt and align our approach and skills set to best meet the challenges posed through modern and evolving ways of working.

Data analytics is a critical tool to add to the auditors' toolkit to assist in the credibility of assurance work and the maximisation of added value in a modern and forward looking organisation.

Data analytics has a range of alternate definitions, however it can be summarised as the science of analysing raw data in order to make conclusions about that information. Data analytics involves applying an algorithmic or mechanical process to derive insights. For example: running through a number of data sets to look for meaningful relationships between them.

This strategy outlines how Audit Risk Assurance (ARA) aims to practice the use of data analytics to address the challenge posed by the digital approach currently being adopted by our partners and to maximise added value in its assurance to our partners and organisations we serve.

This strategy underpins our Internal Audit Strategy and Vision i.e. '*We will incorporate data analytics in our Internal Audit reviews (where appropriate/relevant) to provide further intelligence over entire populations and help to identify key emerging themes and risks. This will also provide management with contextual perspective of audit findings*' and also supports conformance with the Public Sector Internal Audit Standard (1220.A2): '*in exercising due professional care internal auditors must consider the use of technology-based audit and other data analysis techniques*'.

(2) Tools and Techniques

While it is management's responsibility to ensure that risks are appropriately mitigated, Internal Audit can use data analytics to identify areas or transactions where controls may not / do not exist or are not / may not be operating effectively.

The effective use of data analytics can provide significant benefits to Internal Audit and the wider organisation through increased efficiency and effectiveness across a range of key areas.

To effectively implement and maximise the full potential of data analytics, it is essential to invest in the following to deliver the required outcomes:

Knowledge ensure that relevant Internal Audit staff are appropriately trained in the effective design, development and implementation of data analytical techniques, querying and manipulating data and validating hypotheses.

Soft skills communication and interpersonal skills to articulate and visualise insights gained from analysis.
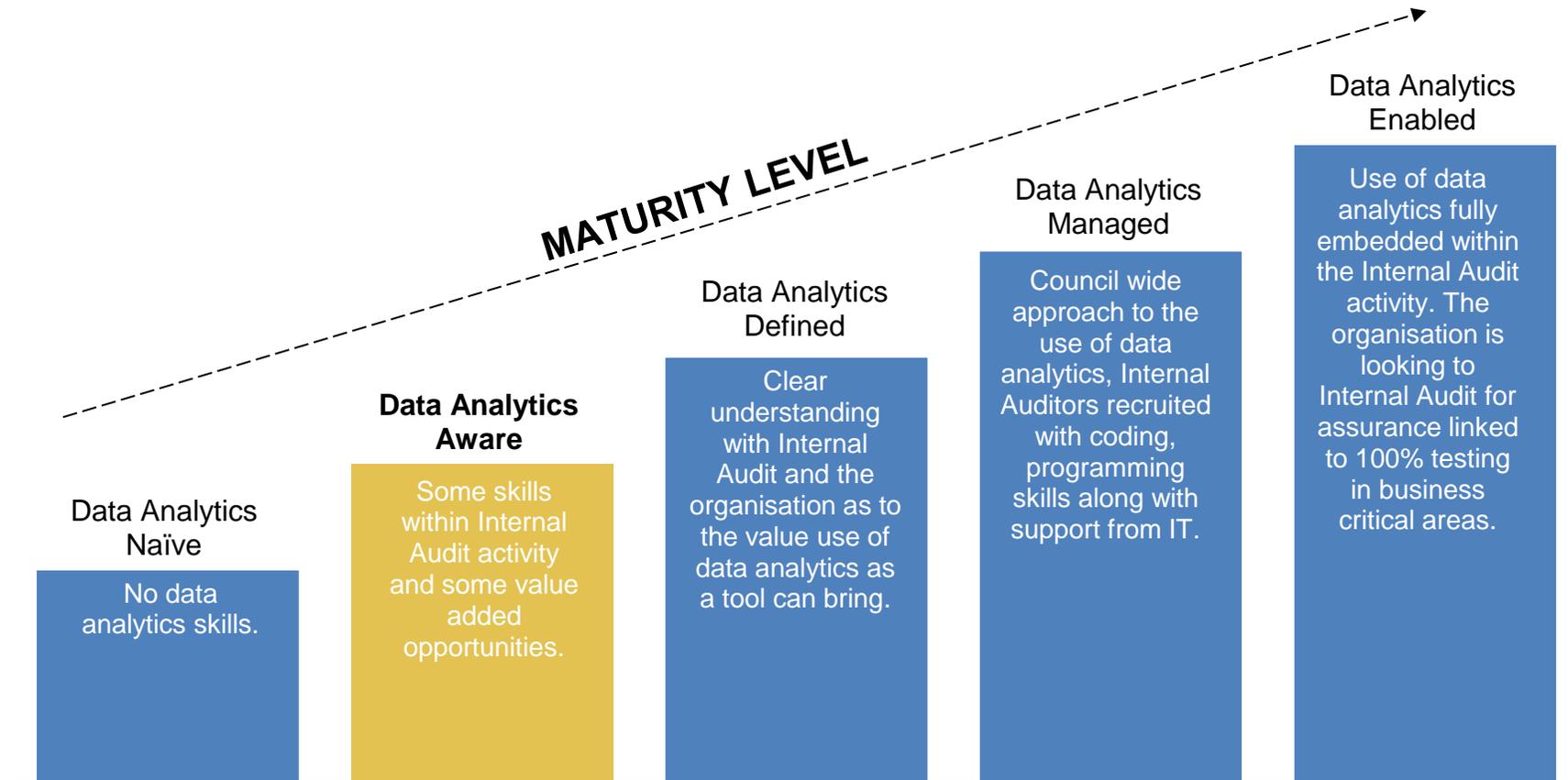
Technology effective use of CAATs (Computer Assisted Audit Techniques) to automate elements of the audit process to increase credibility of audit results, by sampling from a wider population base.

Service Delivery acceptance and understanding of how technology can be leveraged to identify and analyse business problems to ensure the achievement of objectives.

Depth of Coverage (100% sampling)

Greater Insight and Credibility of Findings

Fraud / data matching & Discovering the Unknown Unknowns

Increased Efficiency & Effectiveness through Data Analytics

More Focused Fieldwork - Better Risk Assessment

Continuous Monitoring & Ability to Benchmark Trends

Greater Engagement through Reporting /Visualisation

(3)   Data Analytics Maturity Model

ARA's maturity can be measured on a sliding scale from a 'Data Analytics Naïve' at one end of the scale to embedded 'Data Analytics Enabled'.

MATURITY LEVEL

Data Analytics Naïve
No data analytics skills.

Data Analytics Aware
Some skills within Internal Audit activity and some value added opportunities.

Data Analytics Defined
Clear understanding with Internal Audit and the organisation as to the value use of data analytics as a tool can bring.

Data Analytics Managed
Council wide approach to the use of data analytics, Internal Auditors recruited with coding, programming skills along with support from IT.

Data Analytics Enabled
Use of data analytics fully embedded within the Internal Audit activity. The organisation is looking to Internal Audit for assurance linked to 100% testing in business critical areas.

The chart depicts the current assessment of ARA's maturity as 'Data Analytics Aware'. Progression across the maturity chart relies heavily on the appetite of the organisation to embrace data analytics. Internal Audit alone will not realistically be able to achieve 'Data Analytics Enabled' operating in isolation; however, the drive to 'Data Analytics Defined' is our primary initial focus, working with our partners to establish the appetite for a council wide approach.

(4) ARA's Objectives

Objective	Outcome (ARA's Quality and Assurance Programme to include key indicators of success)	Target Date	Action Owners
To build expertise in the discipline of data analytics to provide added value across our partner organisations.	Expertise developed within ARA in the effective use and management of data analytics to be used flexibly across our partner organisations.	December 2020	Head of ARA / ARA Group Manager
To optimise the use of data analytics to increase the credibility of audit observations through extended and/or 100% sampling.	To provide credible / robust observations to management to contribute towards the delivery of organisational objectives.	Considered for every audit activity	Head of ARA / ARA Group Manager
To utilise data analytics to enhance data matching capabilities to help identify and combat fraud and irregularity.	To identify and deter fraudulent activity across the organisations in accordance with zero tolerance policies.	Considered for every counter fraud activity	Head of ARA / ARA Group Manager
To utilise data analytics to enhance strategic intelligence / risk assessment to inform the Internal Audit Plan and ensure the most effective use of audit resource.	Ensure the most efficient, effective use of Internal Audit resource through strategic assessment and analysis.	Annual Risk Based Internal Audit Planning	Head of ARA / ARA Group Manager
To embed data analytics as part of the standard audit process.	To embed a sustained approach to data analytics through the standard Internal Audit toolkit.	Ongoing	Head of ARA / ARA Group Manager
To support management (where relevant) auditing against risk 'hot spots' across the organisation.	To enable 'real time' auditing highlighting error, anomalies and control failure at the earliest opportunity.	Considered as part of proactive audit activity	Head of ARA / ARA Group Manager