

RISK ASSESSMENT USING DATA ANALYTICS

The 4th Industrial Revolution

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AGENDA



- About Amaseko Advisory Services (Pty) Ltd
- What is Data Analysis?
- Data Analysis & Risk Assessment
- Our Proposition
- Contacts
- Questions & Answers

AMASEKO ADVISORY SERVICES



- *Amaseko Advisory Services* (Pty) Ltd. (“AAS”) are a B-BBEE level 1 contributor team of data analysis specialists based in Gauteng, South Africa with a combined experience of over 20 years.
- Our experience in Audit, Finance, Assurance, Governance, Risk, Compliance and Application Development gives us an advantage in always ensuring quality service delivery to all our customers.

OUR VALUE PROPOSITION



- To empower and enable risk practitioners and auditors in using data analysis tools effectively and efficiently.
- To assist organisations implement, nurture and mature their data analysis capabilities.
- To assist organisations assess their controls and detect control gaps that may lead to corporate fraud/wastage and ultimately impacting organisations from achieving their objectives.
- To proactively furnish managers and business leaders with valuable information that support and inform their decision-making process.
- We transfer skills to our customers in every engagement, empowering our customers not to rely on consultants in long term.

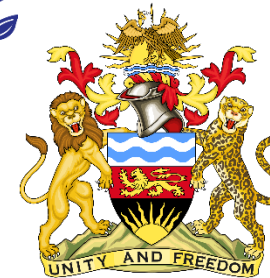
OUR PROJECT EXPERIENCE



Republic of Botswana
MINISTRY OF FINANCE AND ECONOMIC DEVELOPMENT



MOPANI



SOUTH AFRICA



OUR ANALYTICS APPROACH



RISK

assessing
analytics

DATA

leakage
prevention
analytics

POPI

fully compliant
analytics

PROCESS

improving
analytics

HOW DO WE PARTNER WITH YOU



Risk, Audit &
Predictive
Analytics



Data Analysis
Feasibility
Studies



Automation
& Continuous
Assurance



Databased
Integration &
Data
Discovery



Data Analyst
Outsourced
Services



Data analysis
Application
Administration



Web
Application
Design &
Development



Data Analysis
Training

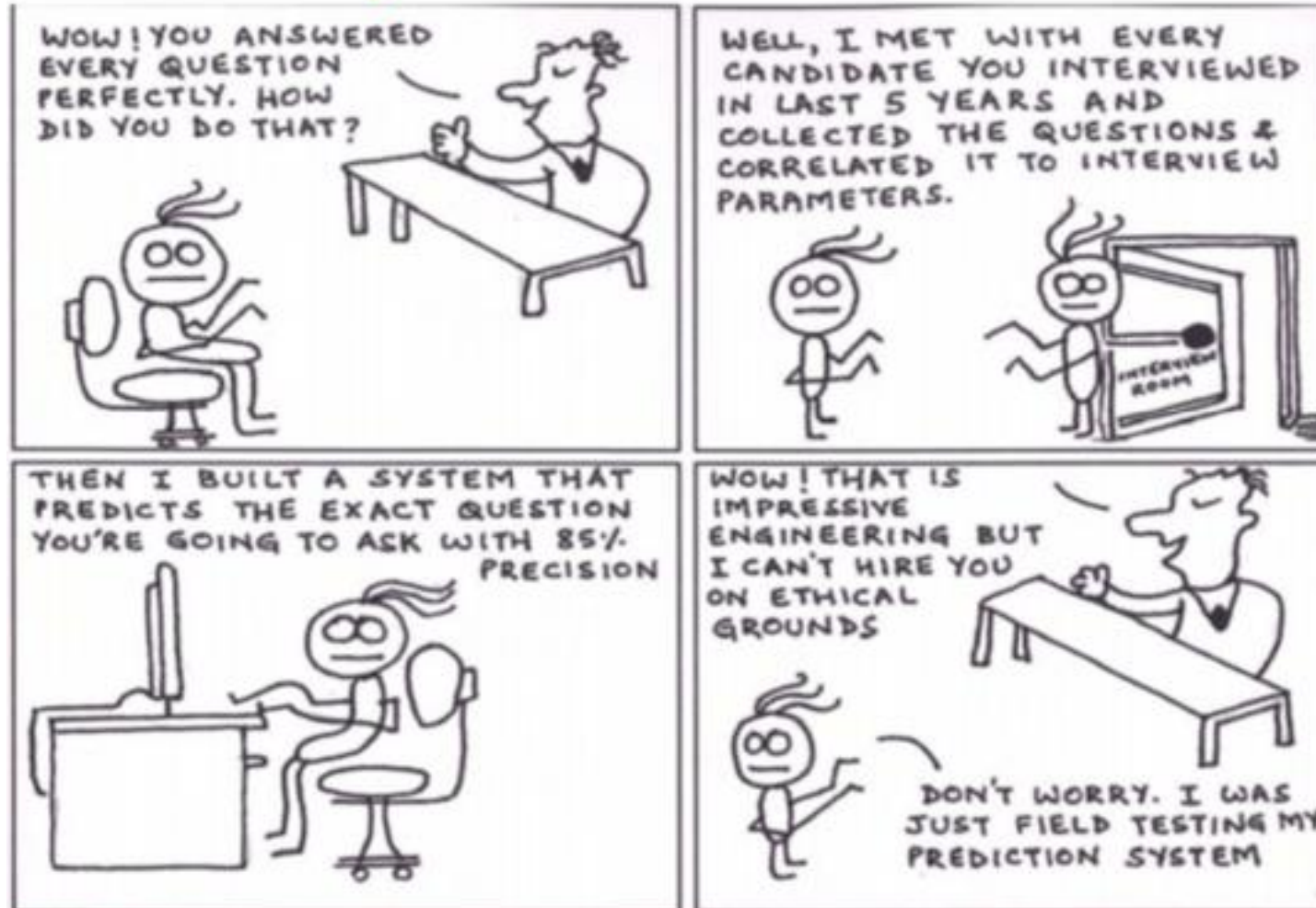
DATA ANALYSIS

WHAT IS DATA ANALYSIS?

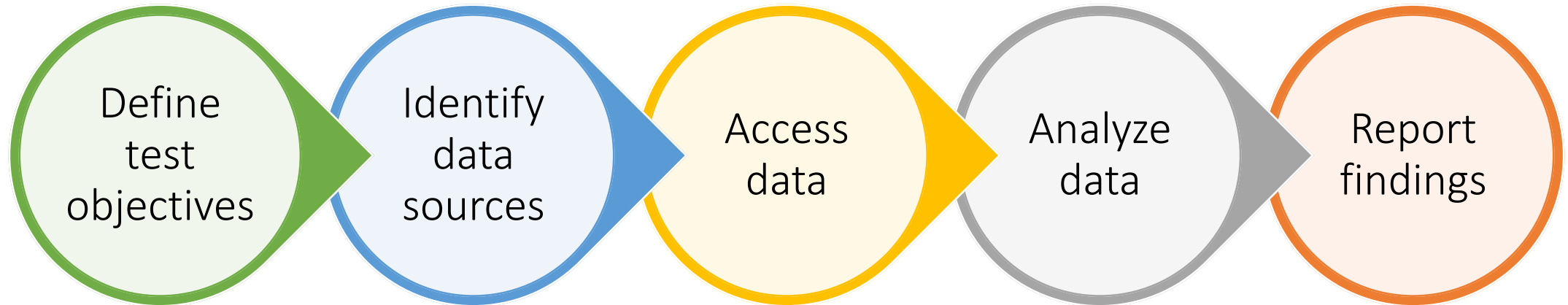


“Data analysis is a process of inspecting, cleansing, transforming, and modeling data with the goal of discovering useful information, informing conclusions, and supporting decision-making.” - **Wikipedia**

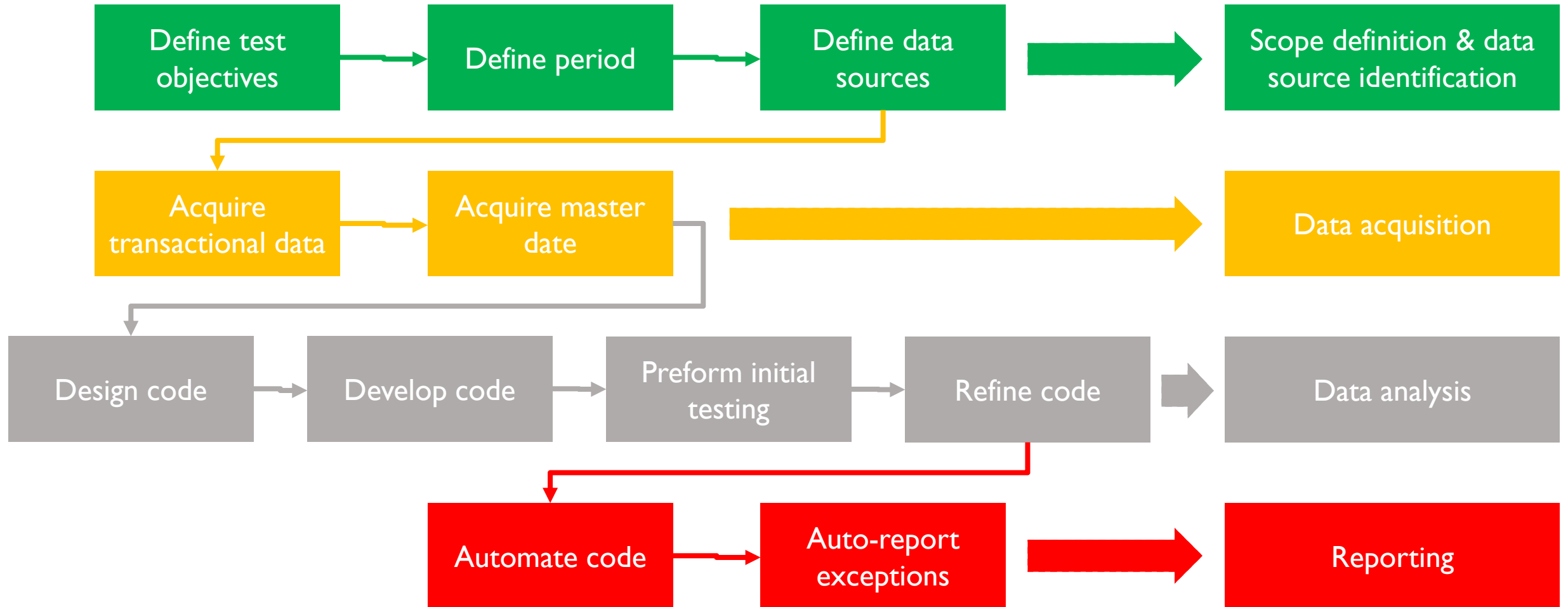
When you interview a data scientist...



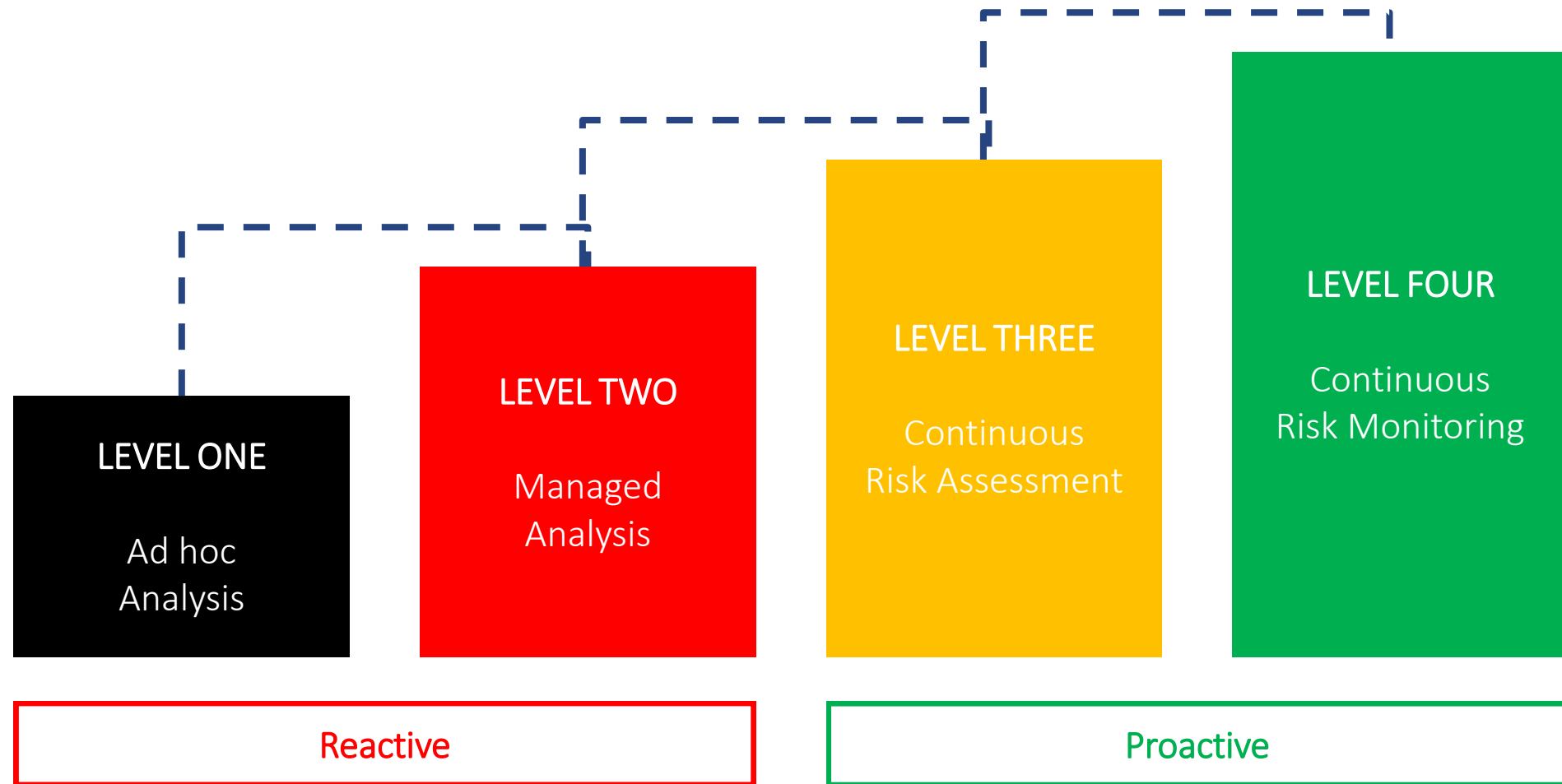
DATA ANALYSIS PROCESS



EXAMPLE - RATES CHARGE (REVENUE LOSS)



DATA ANALYSIS MATURITY LEVELS



DATA ANALYSIS & RISK ASSESSMENT

- Most business organizations assess risk through previous business process experience. This is not based on a precise science, thus this method of risk assessment may not be accurate.
- It is very essential for businesses to perform a risk assessment by using data analytics to maintain accuracy and consistency.
- Risk assessment with data analytics is not limited to just identifying the loopholes in the security systems where the sensitive data is situated. It also implies the identification of potential future risks.
- Analytics can help organizations make efficient resource deployments, meet corporate responsibility expectations, identify fraud, protect brand reputation and choose positive risks for business growth.

IDENTIFY, QUANTIFY & PRIORITISE RISKS - PROBABILITY



Determine the likelihood of risks actually happening

Low probability - The likelihood of this risk affecting the organization is extremely low

Medium probability - The likelihood of this risk affecting the organization is slight

High probability - The likelihood of this risk affecting the organization is extremely high

IDENTIFY, QUANTIFY & PRIORITISE RISKS - IMPACT



Consider what kind of impact each risk would have on the organization.

Low impact - A low impact risk will be easily managed and have little-to-no negative effects on the operations of the organization

Medium impact - A medium impact risk will significantly effect company performance or costs

High impact - A high impact risk will cause catastrophic failures and may force the organization to terminate projects, departments or activities as a result

BIG DATA OPPORTUNITIES IN RISK ASSESSMENT



Risk officers can use data for/to:

- Evidence based decision making
- Improve efficiency, consistency and accuracy
- Remain relevant and move with times
- Identify and quantify transactions that are not complying with control procedures
- Rate risk likelihood based on the factual occurrence of control breaches in transactions
- Rate risk impact based on the quantified revenue leakages
- Rate risk impact based on the quantified potential revenue losses
- Formulate algorithms for risk rating, based on consistent and accurate automated methods
- Proactively assess risks and alert risk owners to take corrective actions

DATA MINING FOR GOVERNMENT DEPARTMENTS



- Personal and Salary Administration System (PERSAL)
- Basic Accounting System (BAS)
- Financial Management System (FMS)
- Logistical Information System (LOGIS)
- Vulindlela
- Department specific systems, etc.

WHERE DO WE START?

Questions you need to answer before you design a data analysis model for risk assessment:

Who owns the required data?

☐

Who has legal authority to access the data?

☐

What kind of data is available?

☐

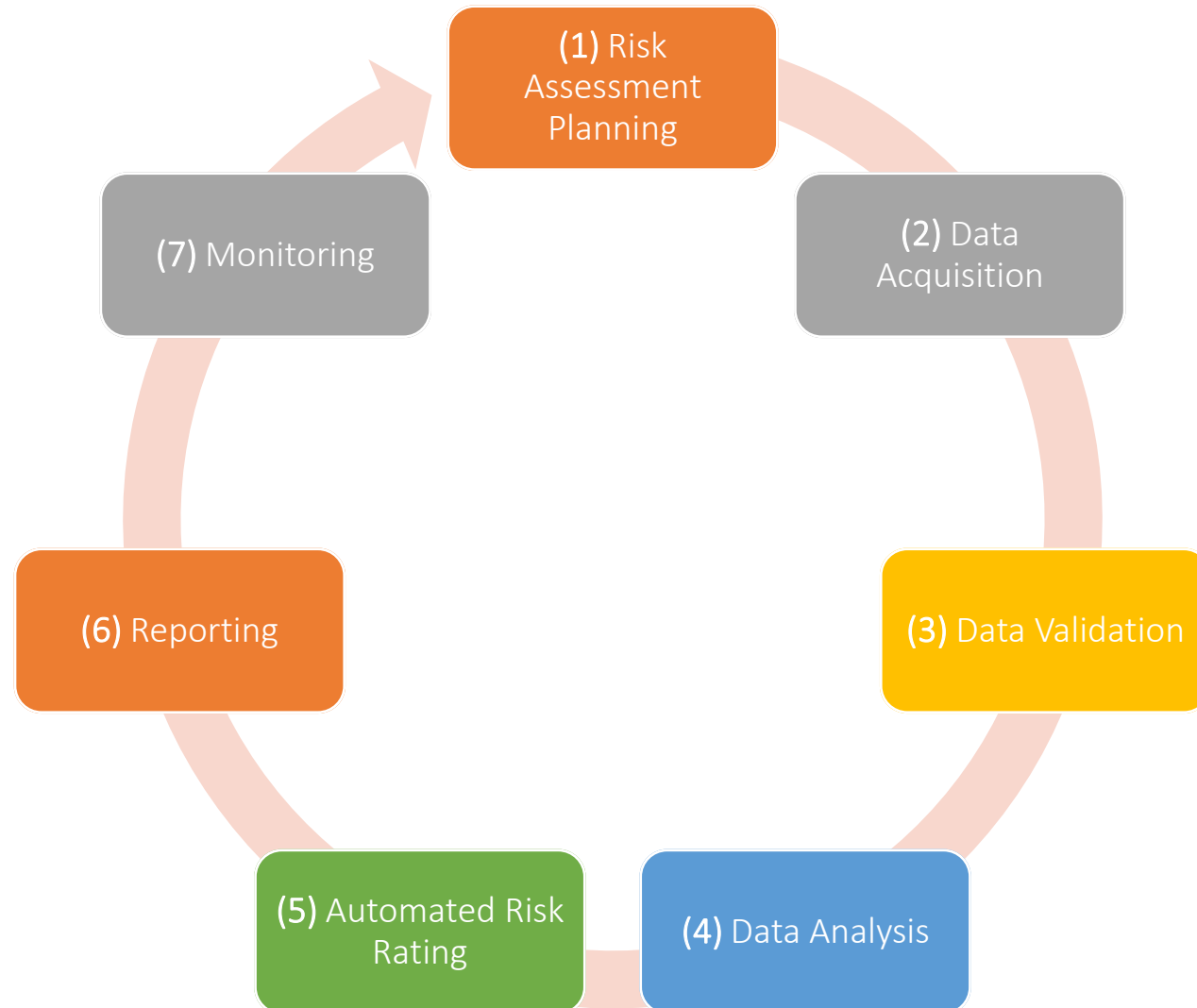
Where is the data stored?

☐

What are the existing data security protocols and/or restrictions?

☐

PROPOSED METHODOLOGY



ADVANTAGES OF USING DATA ANALYSIS IN RISK

Increased efficiency

- ⑩ Reliability
- ⑩ Accuracy
- ⑩ Consistency
- ⑩ Proactive
- ⑩ Insightful

Acquire & maintain relevance

- ⑩ Introduce new skills
- ⑩ Improves innovation

Cost reduction

- ⑩ Reduced future costs deduced from automation

SOME PRACTICAL EXAMPLES

- Water leakages
- Dealers buying fuel from third parties
- MPESA transactions over KES 140 000.00 per day

OUR PROPOSITION

OUR OFFER TO YOU



Skills development

- ⑩ User enablement program
- ⑩ Telephonic mentorship
- ⑩ Yearly refresher sessions and updates

Solution deployment

- Feasibility studies
- ⑩ Solution implementation
- ⑩ Analytics development
- ⑩ Automation (analysis and reporting)
- ⑩ Application administration

CONTACT US TODAY



CONTACT INFORMATION



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QUESTIONS & ANSWERS