



2024 Global Financial Reporting and Valuation Conference

Modernizing Finance: The Journey Ahead

December 8-10 | Fontainebleau Miami Beach, Florida



Governance & Compliance: The CAO Agenda

2024 Global Financial Reporting and Valuation Conference

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With you today



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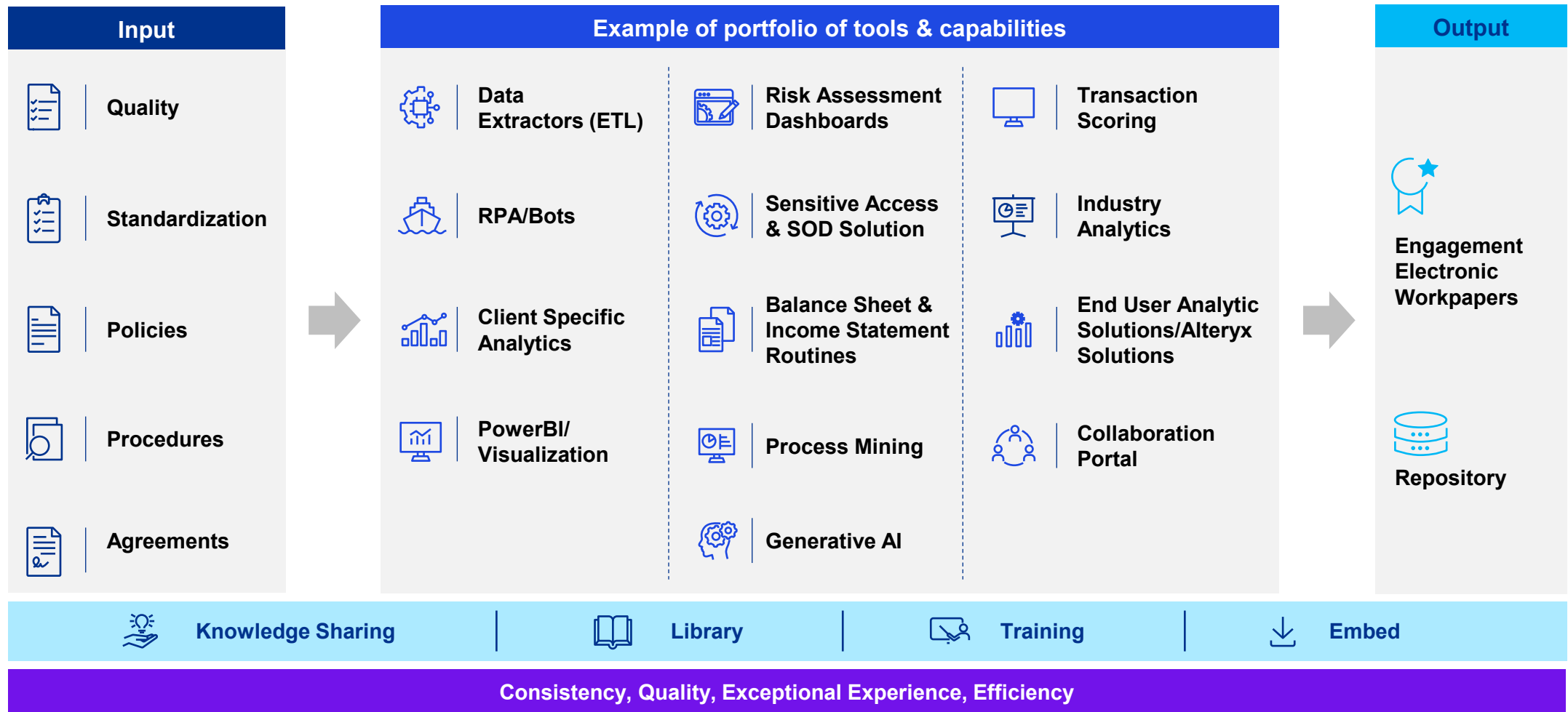
Agenda

- 01** Technology's impact on internal controls and auditing
- 02** Practical examples of analytical tools
- 03** The benefits of automation
- 04** How to get started on your journey

01

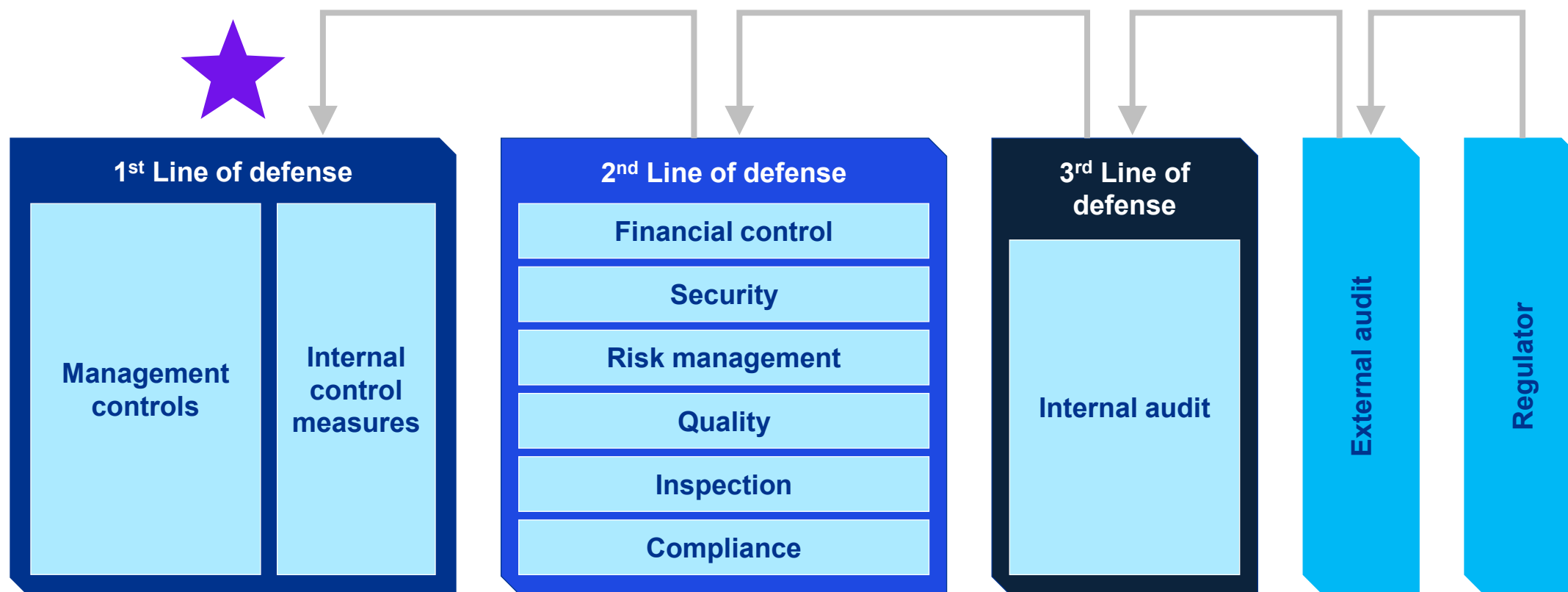
Technology's impact on internal controls and auditing

The new digital auditor's technology toolbox



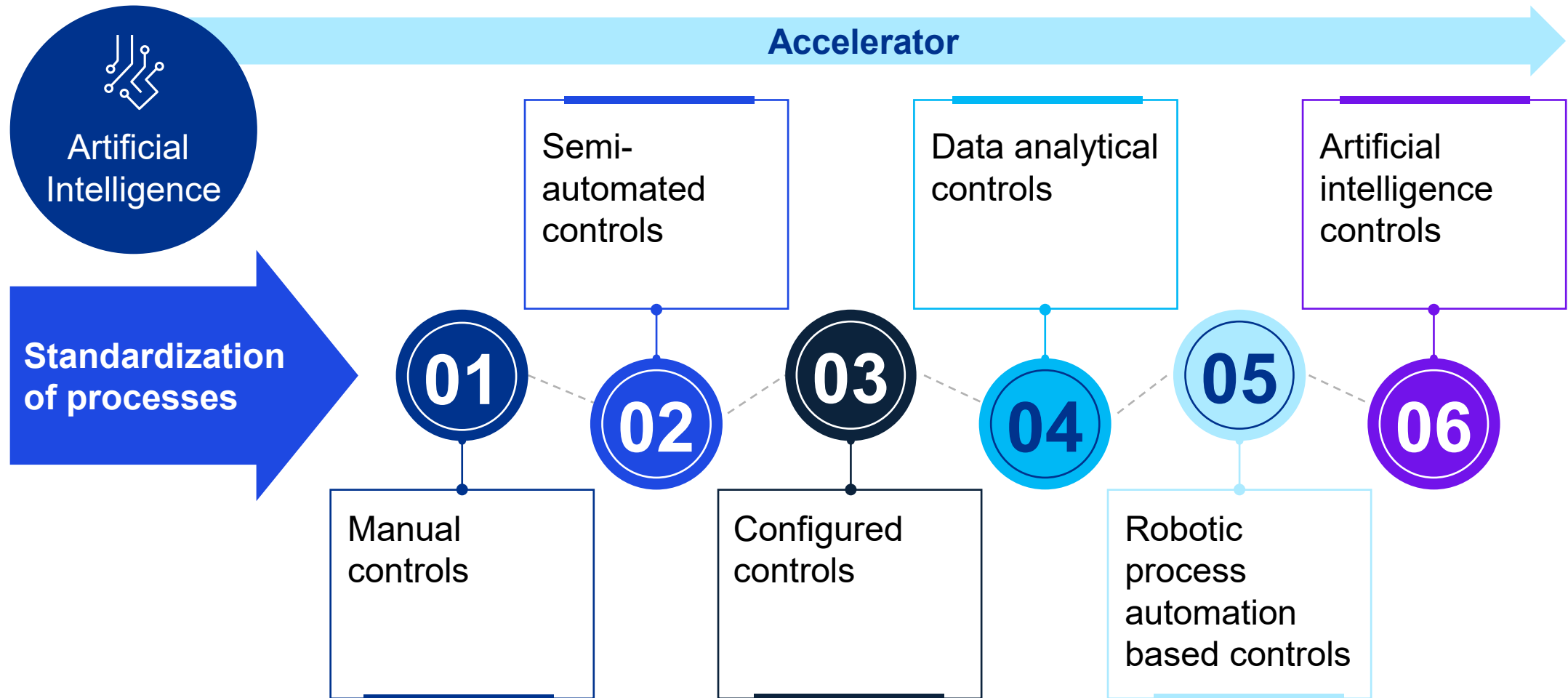
1

SOX function as a control's advisor and driver of change

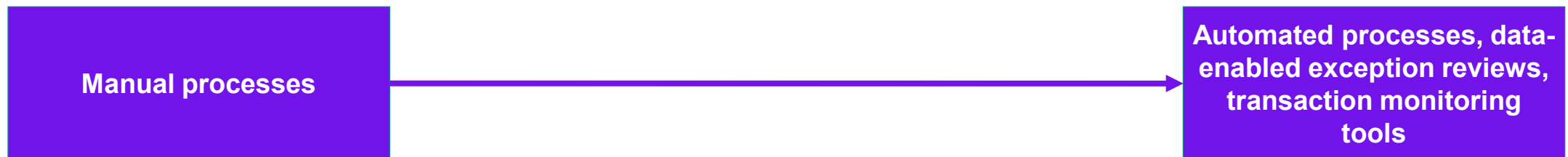
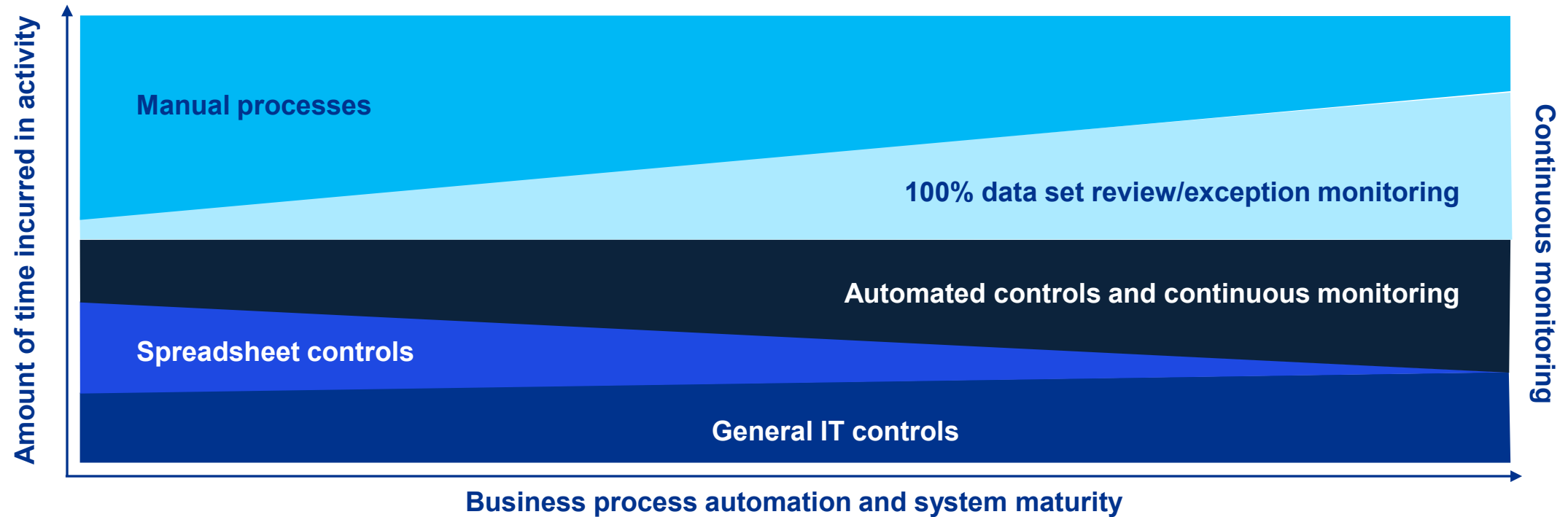


Adapted from ECIIA/FERMA *Guidance on the 8th EU Company Law Directive, article 41*

1st line optimization

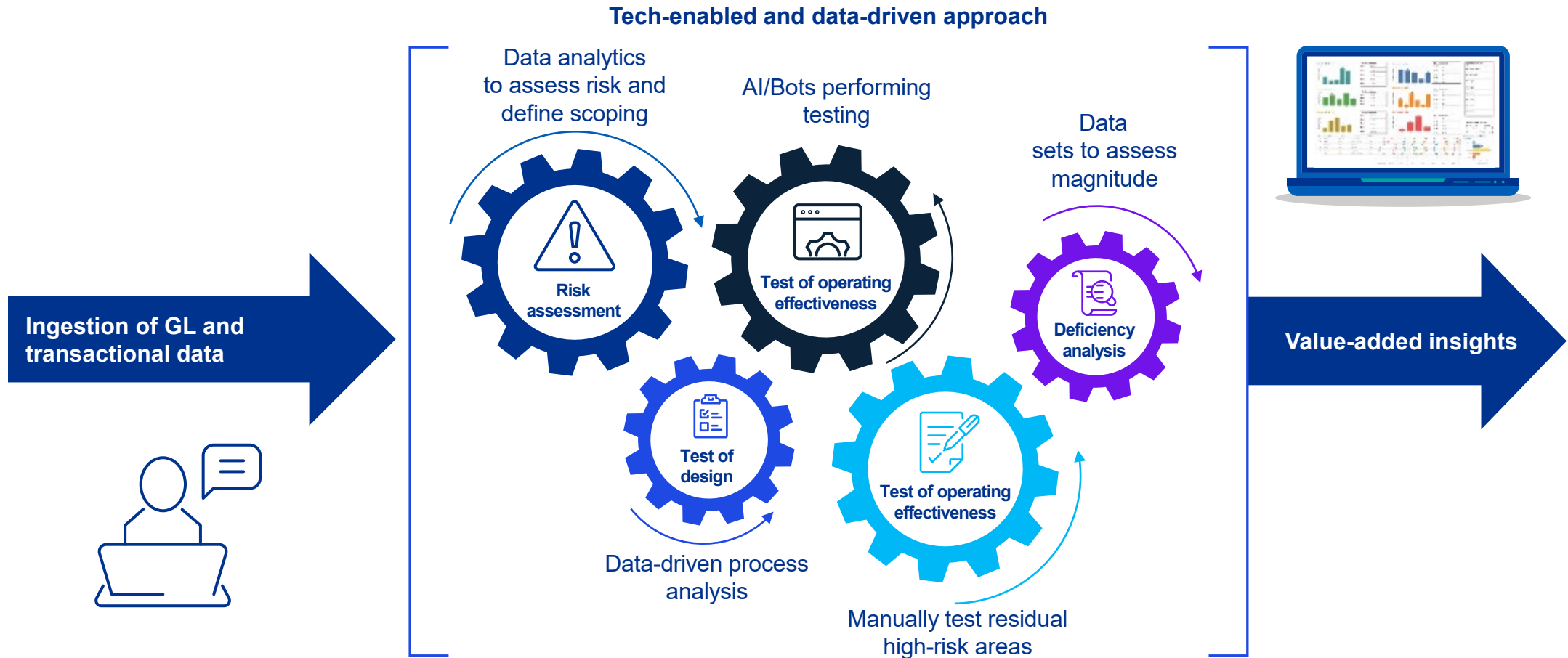


2 The future of controls execution and testing



2 The future of controls execution and testing

The enablement of automation in ICFR testing (2nd and 3rd line)



The benefits of data, analytics, and insights

Use of data analytics continues to be a powerful tool to help assess risk and provide insights to assist management decision-making on process improvements and control effectiveness.



Data Analytics and technology can enable:

Enterprise data is leveraged for risk insights and action

- Aggregating relevant enterprise information
- Automating the flow of information into insights

Audit coverage is broader than ever before, with risk appetite in mind

- Offering visibility to trends across an entire population
- Move from “sample-based” to “exception-based” testing and full population coverage
- Allowing internal audit to target its approach more meaningfully

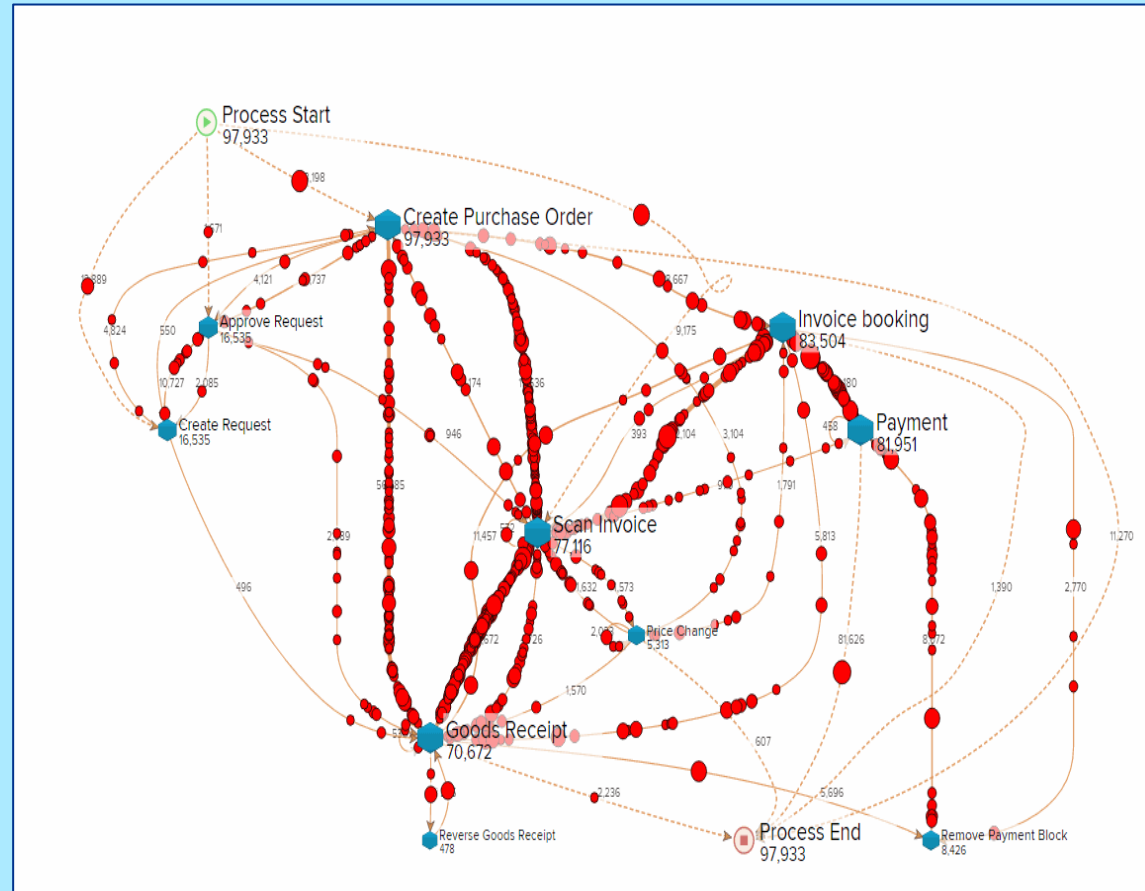
Data driven risk assessment enables smarter decision making

- Leverage risk to help make smarter business decisions with data-driven risk assessment, specific to technology risk domains
- Utilizing data science to better understand and make decisions about risk

Understanding of data flows

**Dynamic, Ongoing and
Fact Based**

**New approach is data
driven and gives
increased transparency**



Process mining applications for Internal controls

Segregation of duties

Segregation of Duty Analysis: Overview

The dashboard displays a process flow on the left, a pie chart showing the distribution of process steps, and a bar chart showing the distribution of process steps over time. The pie chart is divided into segments representing different process steps, with a legend on the right. The bar chart shows the frequency of process steps over a period of time, with a legend on the right.

Risk analytics

Cumulative Risk scoring approach

The dashboard displays a process flow on the left, a bar chart showing the distribution of risk scores, and a table of risk scores. The bar chart shows the frequency of risk scores over a period of time, with a legend on the right. The table lists the risk scores for each process step, with a legend on the right.

Conformance checking

Conformance checking

The dashboard displays a process flow on the left, a bar chart showing the distribution of conformance scores, and a table of conformance scores. The bar chart shows the frequency of conformance scores over a period of time, with a legend on the right. The table lists the conformance scores for each process step, with a legend on the right.

Predictive analytics

Predictive Process Mining

The dashboard displays a process flow on the left, a bar chart showing the distribution of predictive scores, and a table of predictive scores. The bar chart shows the frequency of predictive scores over a period of time, with a legend on the right. The table lists the predictive scores for each process step, with a legend on the right.

RPA analytics

KPMG RPA Scout - Create PO Item Automation

The dashboard displays a process flow on the left, a bar chart showing the distribution of RPA scores, and a table of RPA scores. The bar chart shows the frequency of RPA scores over a period of time, with a legend on the right. The table lists the RPA scores for each process step, with a legend on the right.

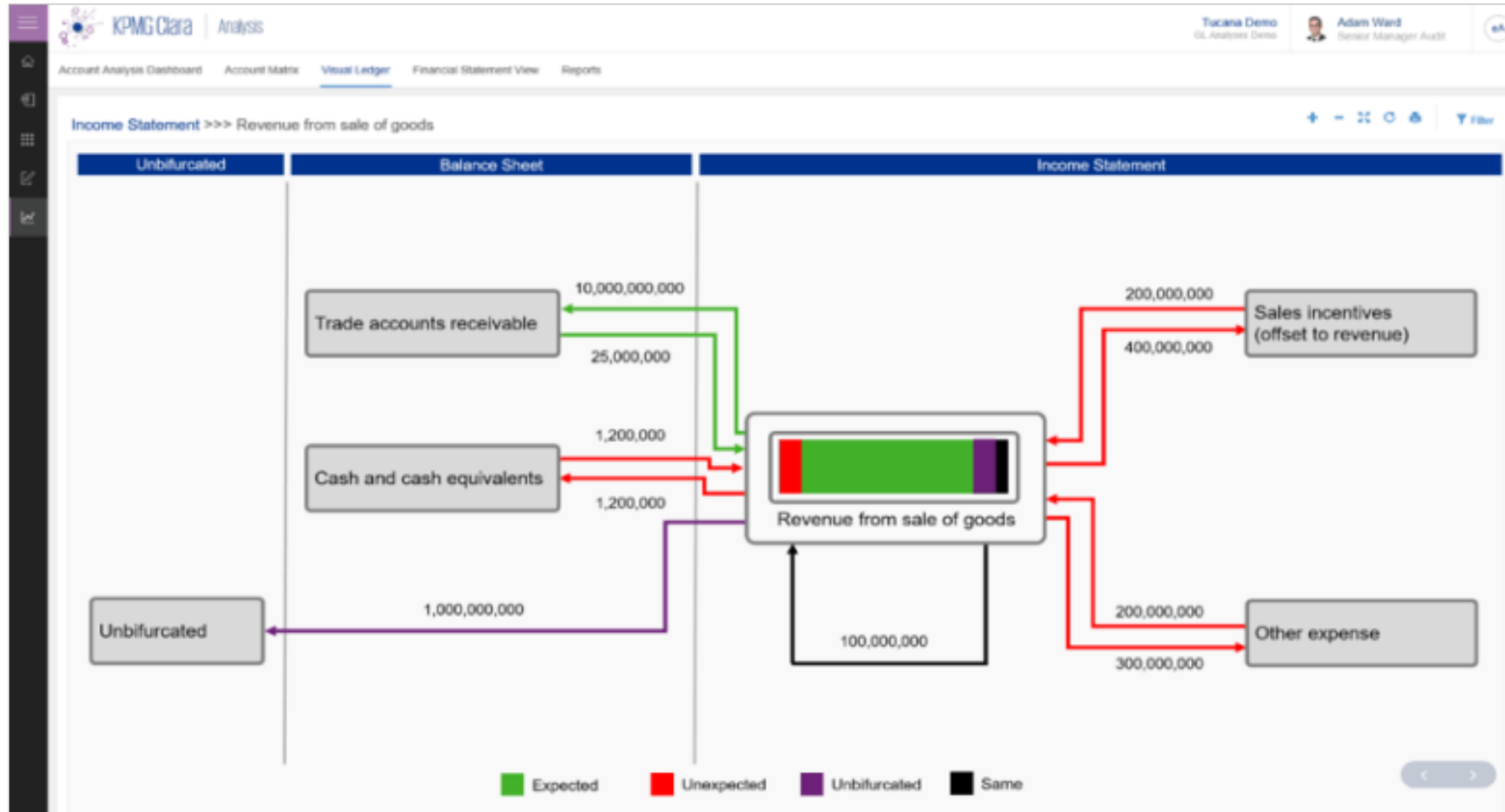
02

Practical
examples of
analytical tools

External auditor risk assessment analytics

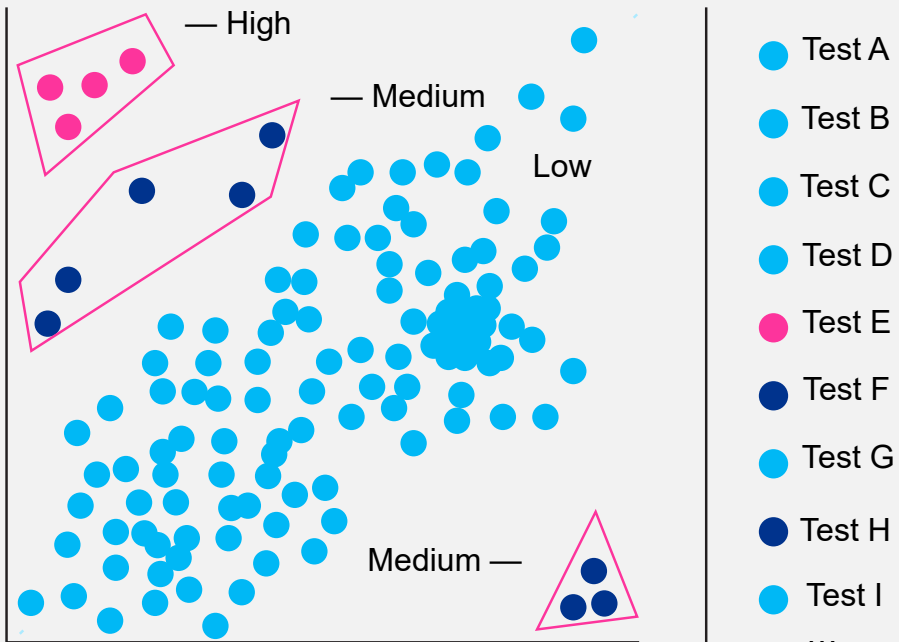
| KPMG Clara | | Planning Analytics | | 0 AnalysisID: 555 | Analysis Period: 2018-01-01 - 2018-06-30 | Analysis Currency: 0 |
|---|--------------------------------------|--|---|--|--|---|
| <div> <div>Planning Analytics</div> <div>Reconciliation/ Roll forward</div> <div>Dynamic Leadsheet</div> <div>Time Series Table/ Chart</div> </div> | | <div>Company Code D...</div> <div>CC1 (#NA#)</div> | <div>Company Local C...</div> <div>C6</div> | <div>Financial Statement C...</div> <div>Cash and cash equivalents</div> <div>Trade accounts receivable...</div> <div>Inventories</div> <div>Prepaid expenses</div> <div>Intercompany receivables</div> <div>Investments in affiliated co...</div> | <div>Account</div> <div>Cash and cash equival...</div> <div>Trade accounts receiv...</div> <div>Allowance for doubtful ...</div> <div>Inventories - materials ...</div> <div>Inventories - work in pr...</div> <div>Inventories - manufactu...</div> | <div>GL Account Number Name</div> <div>AN100327 (Accrued Expenses 173)</div> <div>AN10674 (Accrued Expenses 172)</div> <div>AN106200 (Cash in Bank 51)</div> <div>AN106665 (Accrued Expenses 199)</div> <div>AN110844 (Other Operating Expen...</div> <div>AN112604 (Cash in Bank 87)</div> |
| 1. Trial Balance PY Amount Change | | | | | | |
| GL Account Category - Hierarchy | CY Closing Balance (per TrialBal) | PY Closing Balance (per TrialBal) | Amount Change Closing Balance | Amount Change% Closing Balance | Comments | |
| Asset | 14,445,365.981 | 14,329,233.204 | 116,132.777 | 0.81% | | |
| Cash and cash equivalents | 1,715,750.273 | 1,967,525.852 | -251,775.589 | -12.80% | | |
| Trade accounts receivable, net | 2,853,041.573 | 2,930,214.510 | -67,173.037 | -2.29% | | |
| Trade accounts receivable, gross | 2,908,286.504 | 2,977,699.818 | -69,413.315 | -2.33% | | |
| Allowance for doubtful accounts (pre ASC 326) | -45,244.931 | -47,485.209 | 2,240.278 | -4.72% | | |
| Inventories | 1,626,825.577 | 1,371,896.869 | 254,928.709 | 18.58% | | |
| Inventories - materials and supplies, gross | -956,732.192 | -985,791.589 | 29,059.395 | -2.95% | | |
| Inventories - work in progress, gross | 142,621.156 | 108,364.389 | 34,256.768 | 31.61% | | |
| AN377042 (Inventory WIP 2) | 112,926.421 | 78,669.654 | 34,256.768 | 43.55% | | |
| AN377852 (Inventory WIP 1) | 29,694.735 | 29,694.735 | 0 | 0.00% | | |
| Inventories - manufactured finished goods, gross | 2,514,124.921 | 2,303,027.240 | 211,097.681 | 9.17% | | |
| Allowance for manufactured finished goods | -63,412.725 | -65,504.963 | 2,092.238 | -3.19% | | |
| Inventories - purchased finished goods, gross | -9,775.583 | 11,801.792 | -21,577.375 | | | |
| Prepaid expenses | 415,605.542 | 389,309.326 | 26,296.216 | 6.75% | | |
| Intercompany receivables | 1,473,730.488 | 1,295,803.200 | 177,927.289 | 13.73% | | |
| Investments in affiliated companies | 2,268,132.418 | 2,597,891.467 | -329,759.049 | -12.69% | | |
| Other receivables | 1,195,669.990 | 859,767.568 | 335,902.422 | 39.07% | | |
| Property, plant, and equipment | 2,333,399.198 | 2,359,660.784 | -26,261.586 | -1.11% | | |

Analyzing journal entries

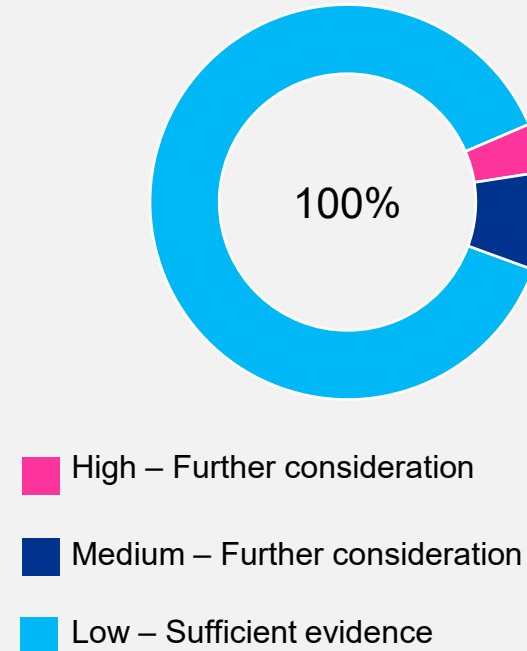


Transaction analysis

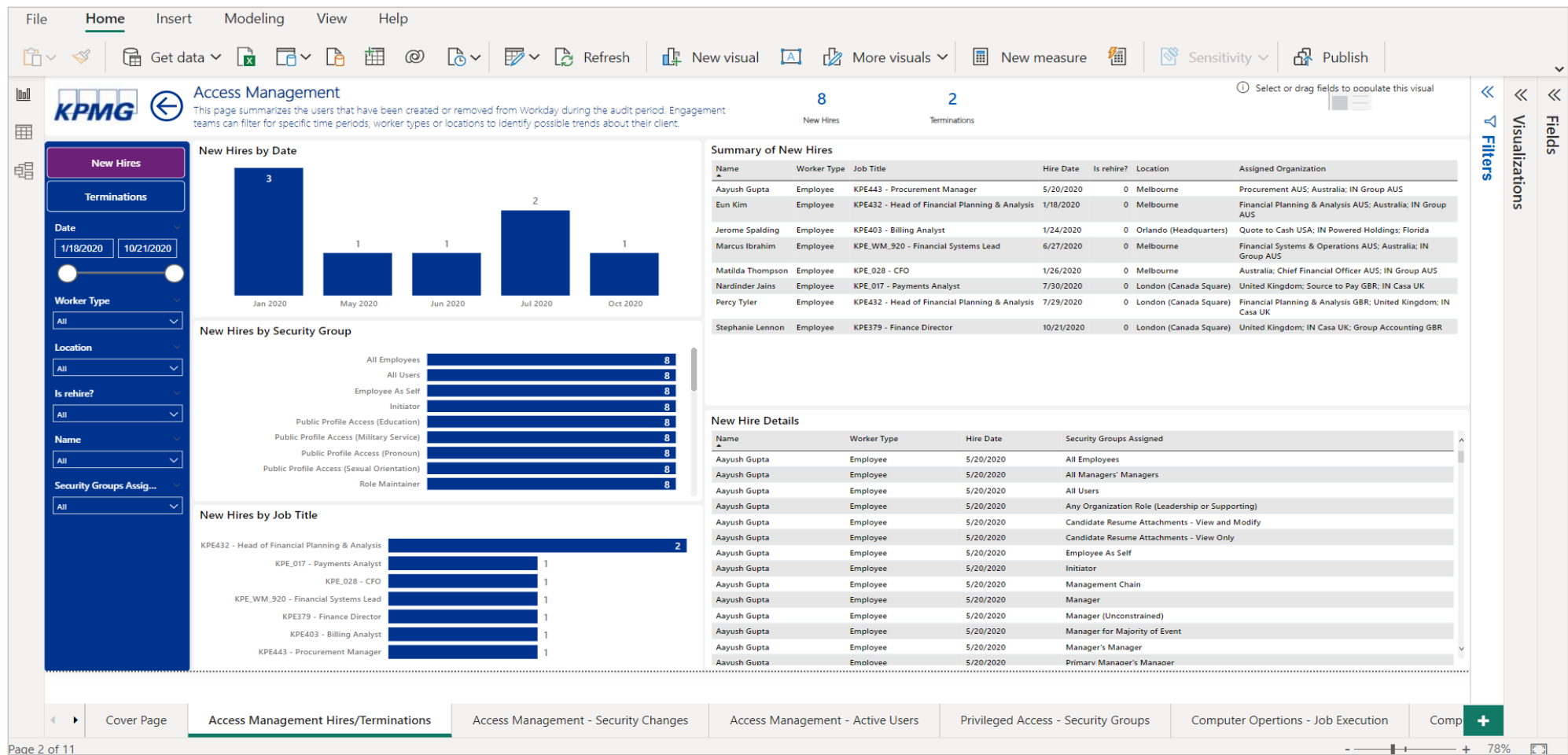
Not all transactions in a population have the same risk profile



Illustrative scoring profiles, actions, and insights



General IT risk assessment dashboard



Continuous control monitoring

1) Extract – Transform

- All relevant data inside ERP systems will be collected daily and consolidated into a central database
- Interfaces to all major systems are available using standard software (e.g. Xalerts)

2) Analytics

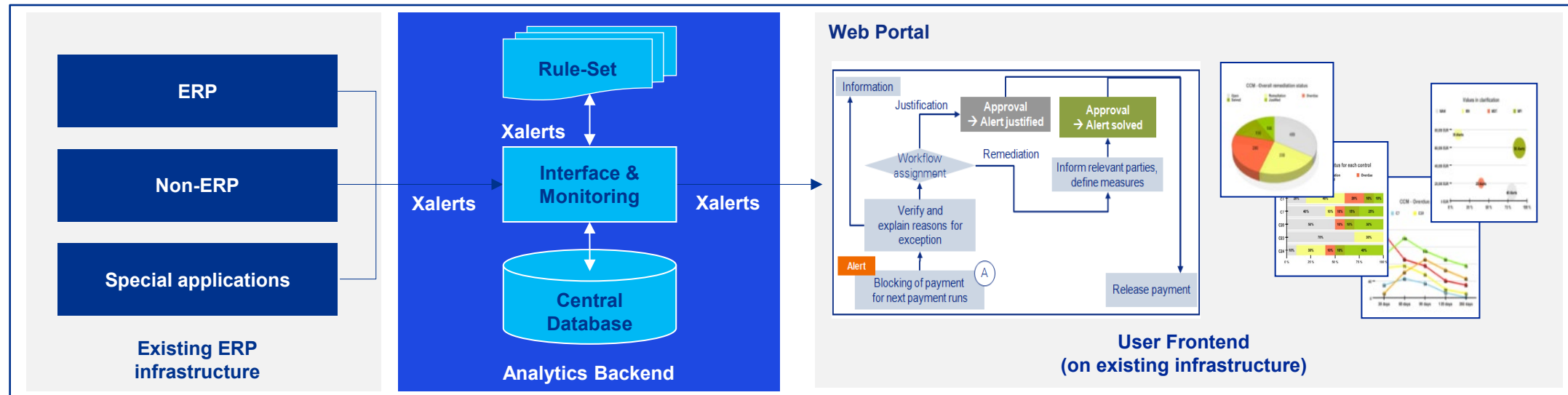
- Daily automatic scan of critical issues (role conflicts, fraud, suspicious transactional patterns, etc.) for R2R, P2P, O2C or H2R processes
- KPMG has a large knowledge base including over 1300 standard controls

3) Workflow

- Critical issues will be forwarded for investigation and remediation
- Self-learning system to minimize false-positives
- High usability through E-Mail notifications, reminder and escalation processes

4) Dashboard

- Provision of customized management dashboards including KPIs and drill-down features for evaluation and reporting purposes



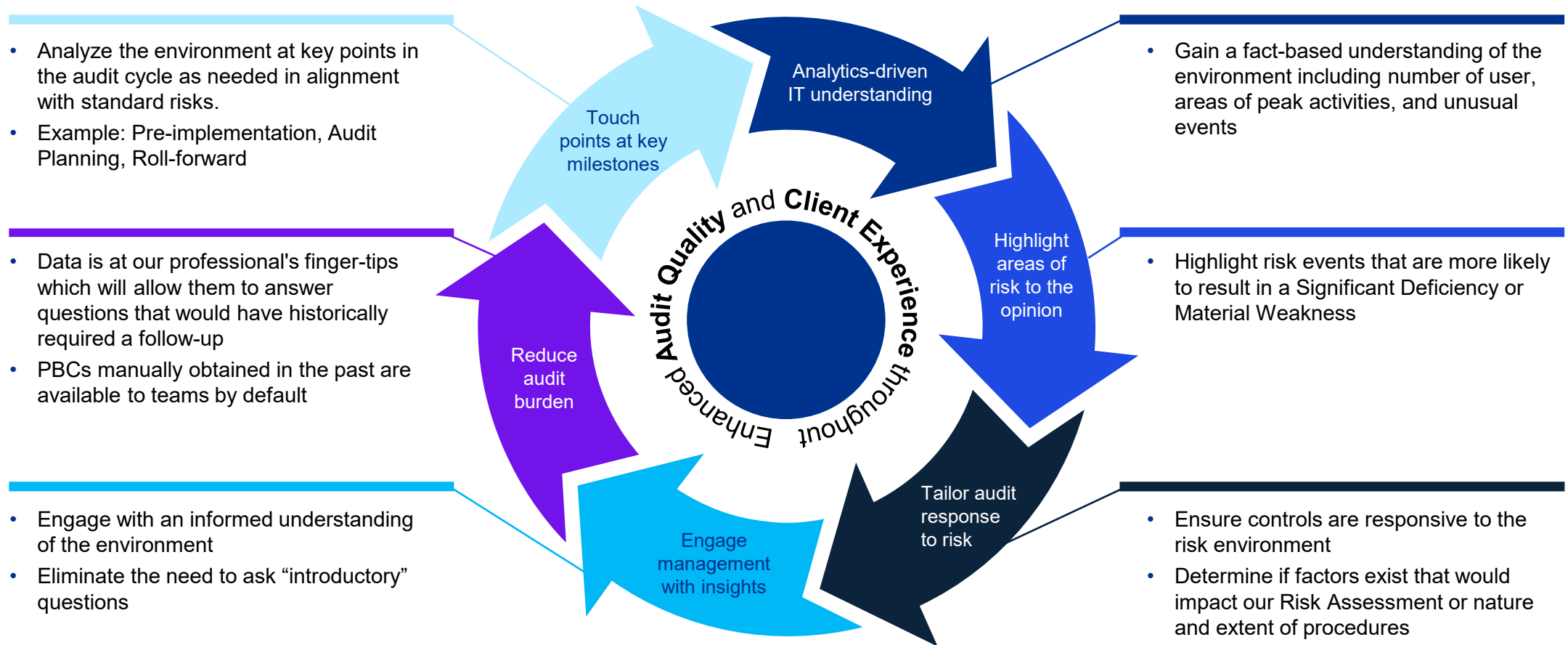
Example continuous monitoring dashboard

| Security Scorecard | | | | | | | | | | |
|---|---|---|--|--|--|--|--|--|---|---|
| TECHNOLOGY | DNS Health | Endpoint Security | Application Security | Network security | Hacker Chatter | IP Reputation | Patching Cadence | Cubit Score | Information Leak | Social Engineering |
| | <div><div>B</div>80</div> | <div><div>A</div>100</div> | <div><div>C</div>77</div> | <div><div>B</div>87</div> | <div><div>A</div>100</div> | <div><div>B</div>97</div> | <div><div>B</div>88</div> | <div><div>A</div>100</div> | <div><div>A</div>100</div> | <div><div>A</div>100</div> |
| Perimeter | | | | | Access Management | | | | | |
| AD High Risk Domains Remediation | | | | | % of applications not onboarded to IGA Goal: 100% | | | | | |
| AUTH Assessment task Goal: 100% | CORP Assessment task Goal: 100% | Poly Assessment task Goal: 100% | AzureAD Assessment task Goal: 100% | Stale Accounts (Auth Domain) Goal: 100% | | Privileged Access Management Goal: 100% | | SSO Enabled Applications Goal: 100% | | Mission Critical Apps without SSO Goal: 100% |
| 73% | 100% | 90% | 54% | 68% | | 54% | | 39% N | | 38% N |
| External Facing infra vulns Goal: TBD | | | | | Maturing Controls | | | | | |
| Ext Application Vulns (STS) Goal: TBD | Number of critical vendors accessed Goal: 100% | Expired External Certs Goal: <10% | SOX Apps Ready for Testing Goal: 100% | | ITGC Control Deficiency Goal: <5% + no MW | | Prepare SOX apps for IGA onboarding Goal: 157 | | MTTR (SOC Mean Time To Response) Goal: 10m | |
| C=3, H=57 | C=30, H=5093 | 84% (92 out of 110) | 20 out of 1685 | 92% | | 3% | | 31.75% (40 out of 126) | | 6m 23s |
| Azure Tenant Controls Deployed Goal: 100% | IAMAD Assessment Task Goal: 100% | Apps Without MFA Goal: 0 | Internet Facing Apps not Assessed Goal: 0 | Enterprise-Grade Coverage &.. | | | Evolving Out data Loss... | | | |
| 98% | 100% | 63 | 268 | Phishing Click rate Goal: <10% | | PCI Crit/High Vuln (121+Days old) Goal: <5% | | USB Exceptions Goal: <5% | | Client Enforcement Goal: 100% |
| Domain Controller Security Assessment Goal: 100% Responses | AWS/Azure Agg Infrastructure Vuln (Authenticated Scans) | AWS/Azure Agg Infrastructure Vuln (Unauthenticated Scans) | 100% | | C=20, H=0 | | 11.13% | | 100% | |
| 100% | C=8684, H=5115 | C=3, H=57 | | | | | | | | |
| <div>Legend<div><80%</div><div><80% - 99%</div><div>>99%</div><div>N</div>New metric</div> | | | | | | | | | | |

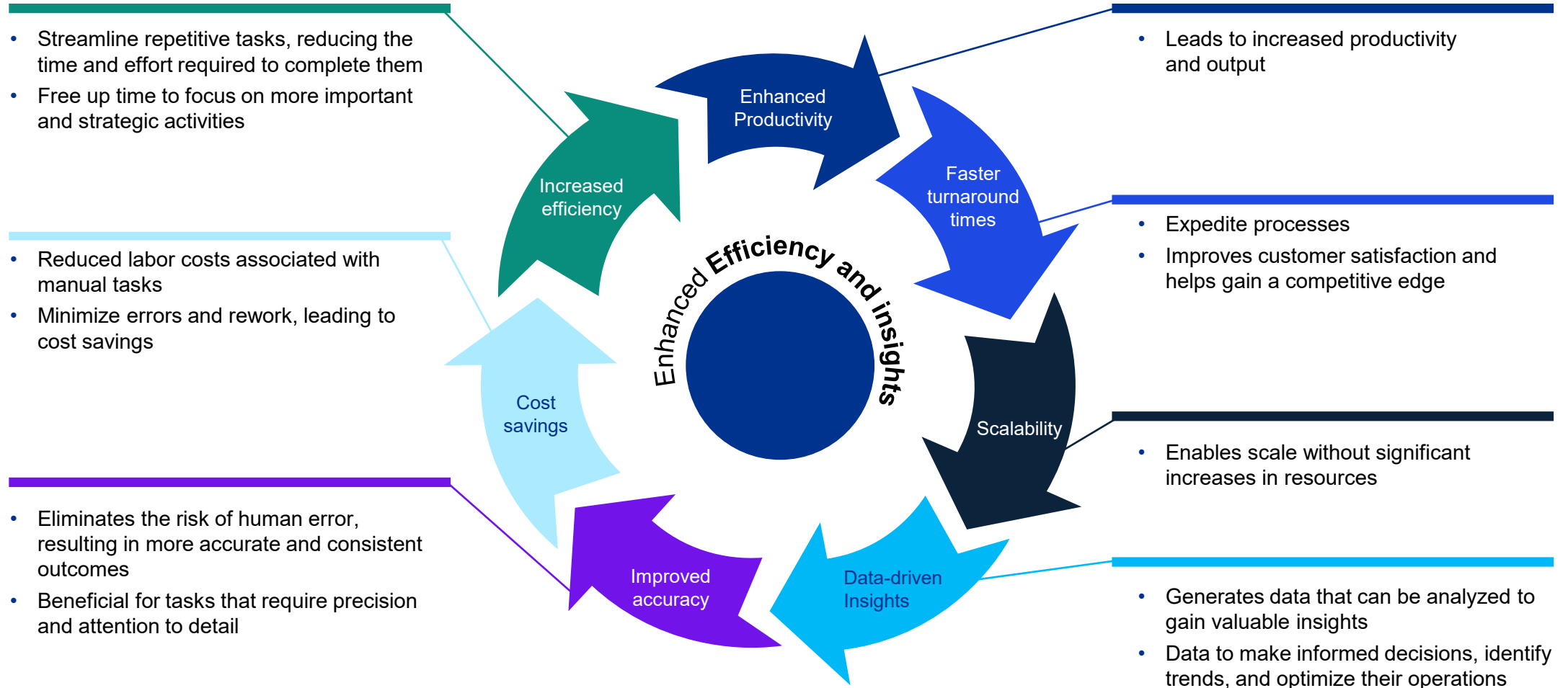
03

The benefits of automation

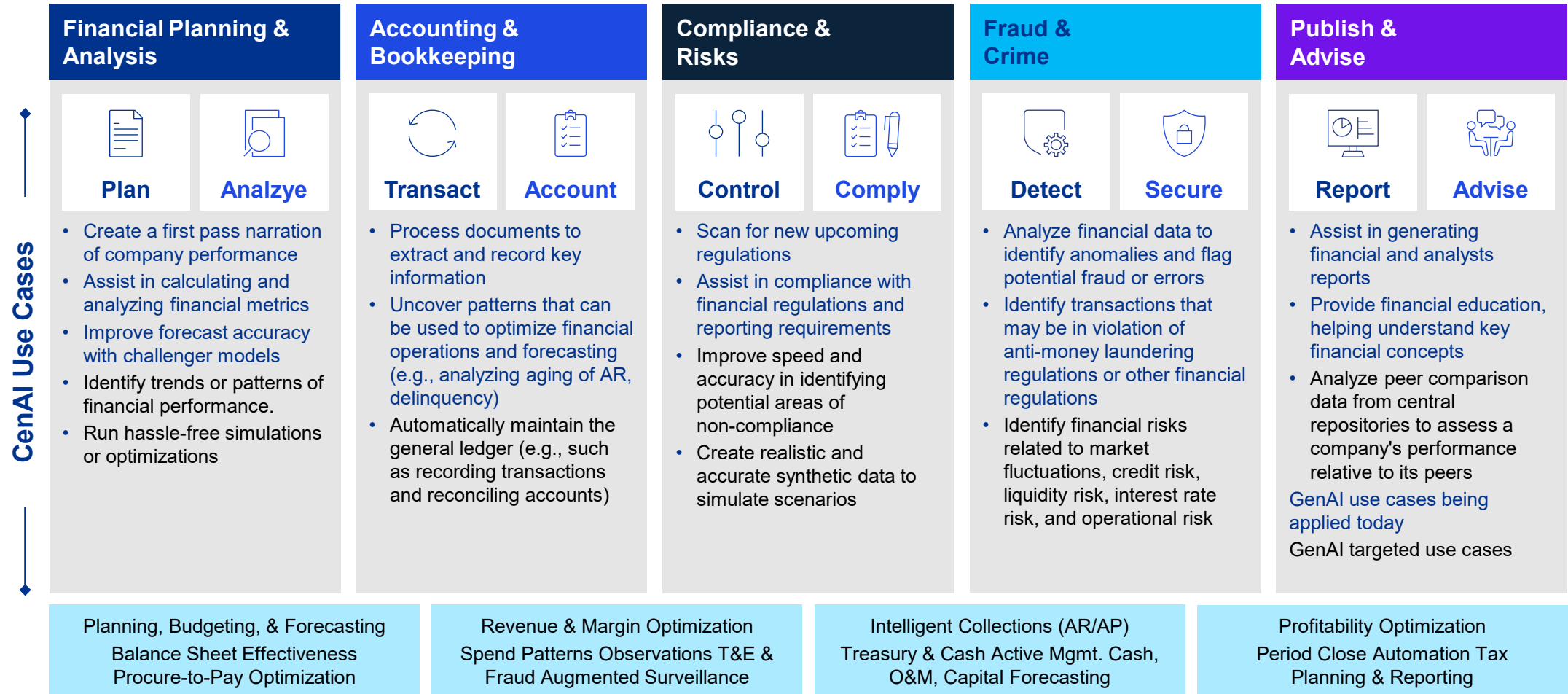
External auditor benefits and objectives of automation



Company benefits and objectives of automation



How are organizations applying Gen AI to their F&A functions?

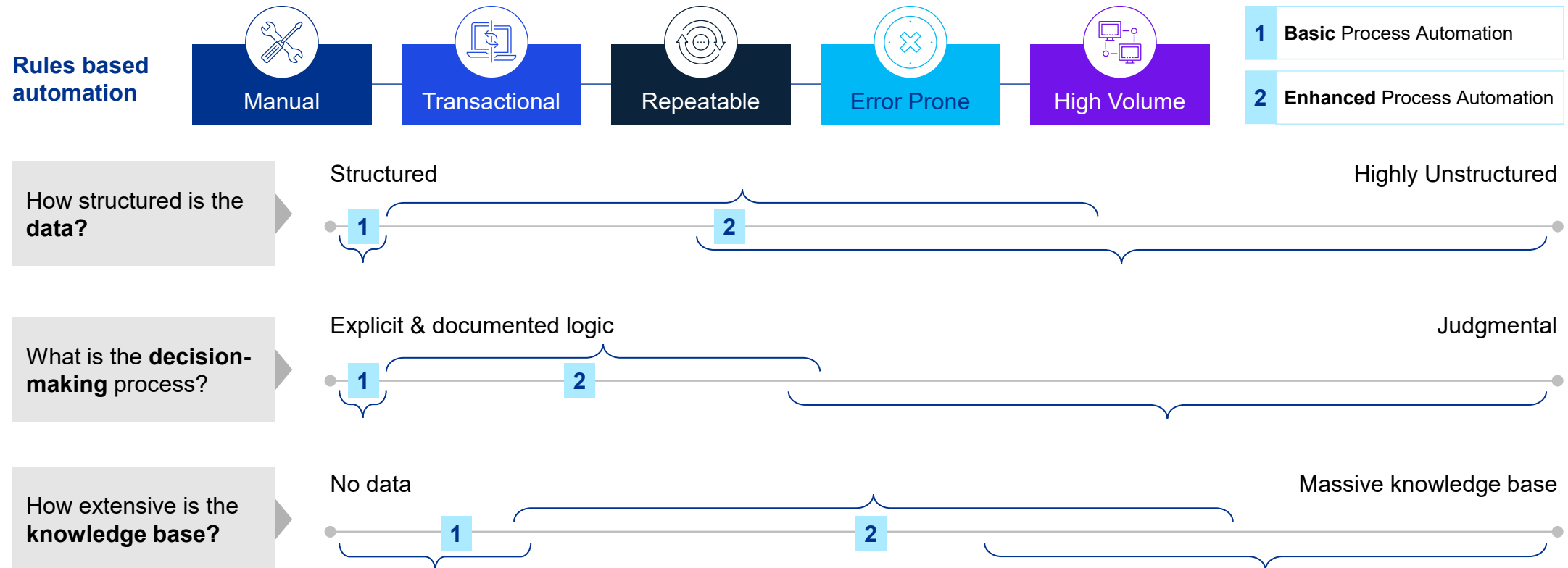


04

How to get
started on
your journey

How to get started: Identify and prioritize opportunities for automation

Good candidates for automation are the control processes and test procedures which have fairly structured data and involve low to no judgement. True benefits of automation are realized when the process is high volume, transactional and repeatable.



Select automation use cases overview

Illustrative use cases for control performance



Use case 1 - RPA: Generating UAR artifacts to perform reviews



Use case 2 - AI: Risk based identification and review of User Access



Use case 3 - RPA: ERP critical user access / SOD review



Use case 4 - AI: Risk based identification and review of high-risk changes



Use case 5 - RPA: Monitoring of environment for cloud system additions

Use cases for validation and monitoring



Use case A - RPA: Legacy Change Management using information from ticketing system



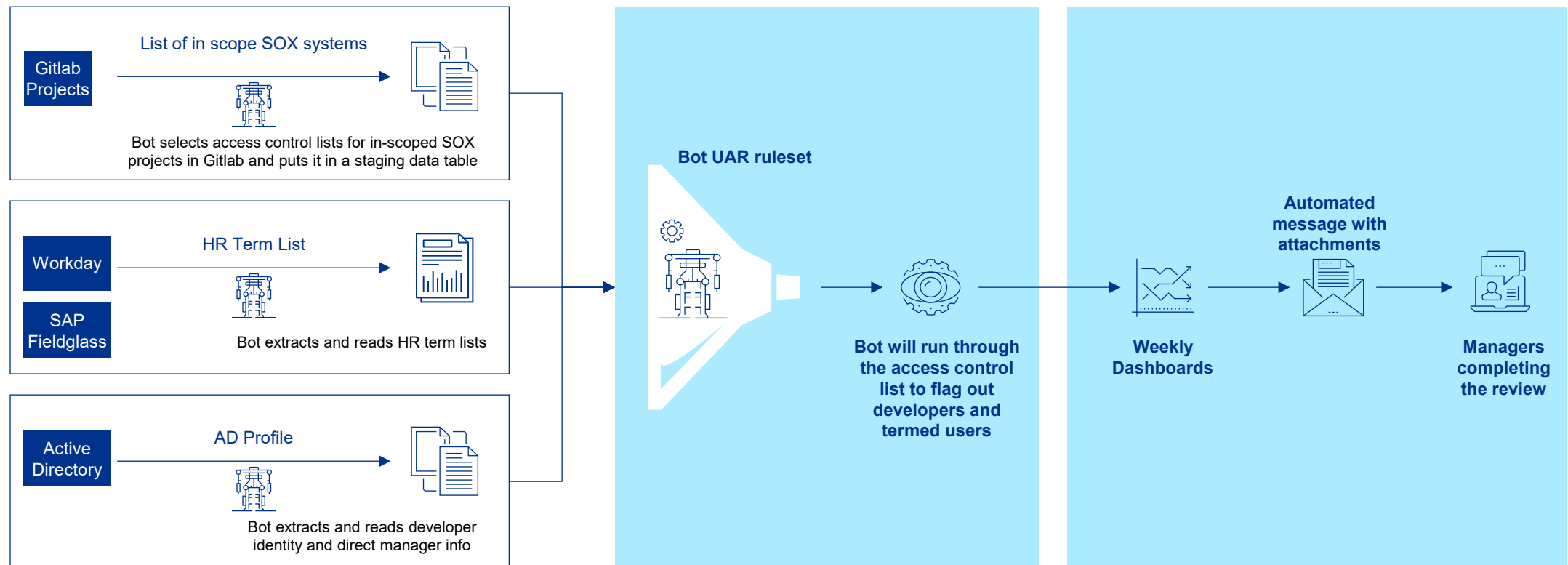
Use case B - RPA: Agile SDLC Monitoring Automation



Use case C - RPA: Monitoring for vulnerability management

UAR automation - GitLab: Illustrative process flow

On a quarterly basis, a review of users who have SOX relevant GitLab project level access is performed to ensure that access is restricted to those who are appropriate based on their job responsibilities. An automated workflow enhances this process by pulling change data from GitLab analyzing against SOX requirements. The workflow will continually monitor changes and assure segregation of duties to then sent to managers for verification.



What
questions
do you have?

Thank you!



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