PwC India Business Risk Consulting

Service Offering Deck

June 2023

Business Risk Consulting Services - Overview

Who are we?

- **Business Risk Consulting Services** is a team led by **6 Partners, supported by 20+ Directors & 540+ professionals** with background in technical, strategy, accounting and business processes with wide variety of industry and practice experiences.
- Within BRC, we have a pool of team members specializing in various technologies and expertise.

Our Pool of Resources

Business Risk Consulting team

- Large pool of resources available to support engagements across different delivery verticals
- Continuous upskilling and technical skill upgrades to have our team equipped and ready to be deployed

150+ Functional Consultants

180+ Technical Consultants

45+ SAP Certified Professionals

20+ Oracle Techno Functional

190+ IT Security Consultants

Together, this combination of people will provide you with the right expertise in the right places at the right time

Industry Sector Focus

- **FMCG**
- **Oil & Gas**
- **BFSI**
- **Technology Services**
- **Pharmaceutical**
- **E-Commerce**
- **Manufacturing**
- **Automobile**
- **Power & Utilities**

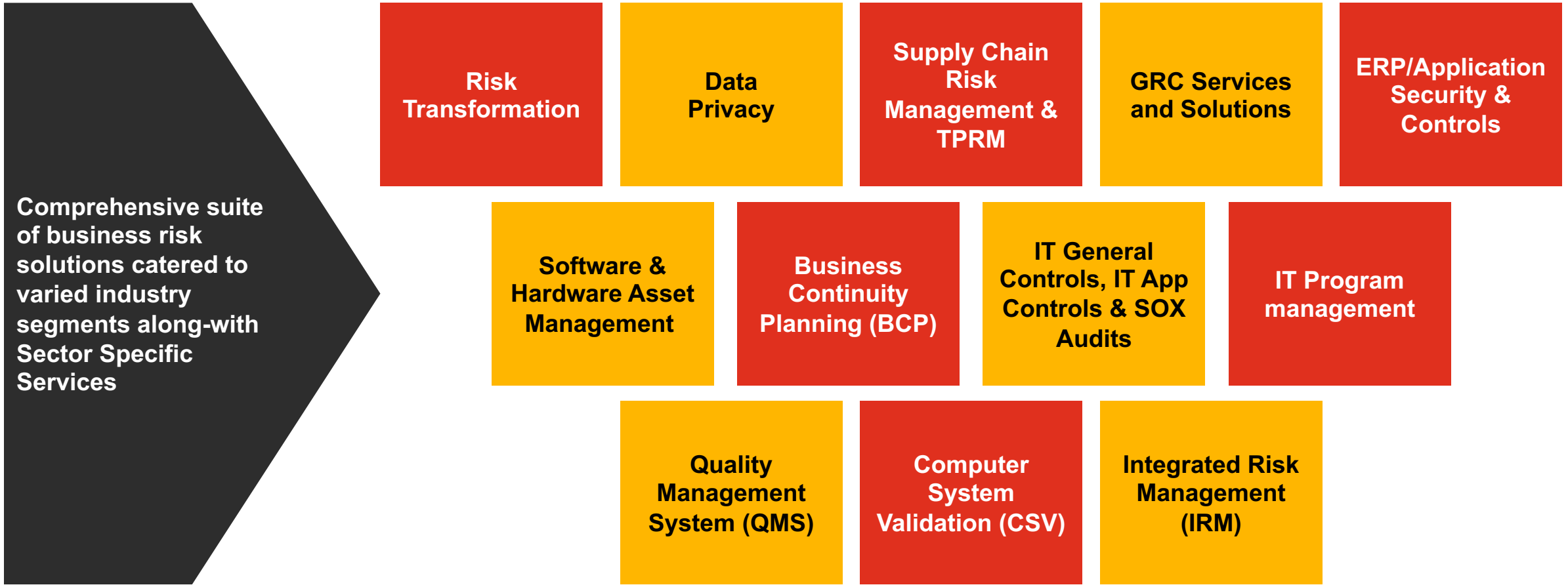
Automation Solutions

- **Web Based Tool for Access management & Continuous Monitoring**
- **Dashboards for Management Reporting**
- **Ready to deploy automation solutions for Application Security & Business Controls Monitoring**
- **BOT Solutions for Controls Monitoring**

What we have been working on

150+	Global engagements driven by our team for PwC India, PwC US, PwC UK and PwC UAE network firms
200+	Ongoing engagements being delivered for domestic clients
80+	**Team members with certifications in** CISA, SAP GRC, Six Sigma, ISO 27011, ISO 22301, ISO 31000, ISO 9001
50+	Global Engagements

Business Risk Consulting – Service Offerings



Services View - Risk Transformation

Our Capabilities

Team of SMEs
- Industry
- Functional and Domain
- Risk and Compliance
- Business Process Management

Target Clients
- Large Multi-nationals
- Diversified Conglomerate
- Private Equity Investees
- Family Businesses

Enablers
- Frameworks
- Operating Model Processes
- KRIs and KPIs
- Reporting

Accelerators
- Marketing Leading Platforms
- PwC Products
- PwC IPs

Sectors / Industries

- Financial Services
- Global Captives
- FMCG
- Oil & Gas, Power & Utilities
- IT & ITeS
- E-Commerce
- Retail
- Steel
- Pharmaceutical
- Manufacturing
- Media
- Professional Services

GTM Proposition in Risk Transformation

Core Risk Transformation Service Offerings

Dipstick Reviews	Target Operating Model	Risk Function Transformation Programs	Managed Service	COEs

Target Operating Model

Strategy alignment Board Oversight	Roles and Accountability Risk operating model	Framework and policies Integration (IRM)

Risk Appetite

Risk Culture

Risk Management Lifecycle

Risk Identification & Assessment	Risk Response	Risk KPIs, KRIs Monitoring & Reporting

Enablers

Risk Tools & Technologies	Risk Data, Modelling & Analytics	Resourcing, Capabilities and COEs

Key Drivers

Post Pandemic changes – increased digital ambition	Increased virtual and remote working models
Emerging risks needs pragmatic approach and specific skills	Increased regulatory compliances and scrutiny
Expectation of shifting assurance ownership to operations	Increased cost of risk and compliance function

Focus Network Markets

Our relationships with the networks is strategic focusing on delivering great outcomes with highest standards. Based on the client and network relationships, we:

- **Co-sell and Co-deliver** – we share the part of the scope and lead the delivery
- **Support sell and support deliver** – we support the network firm to lead

We have strong long-standing relationships with the below networks, including the others

Targeted Regions:

US	**Europe**	**APAC**
UK	**Middle East**	

Key Levers

Structural & operating model – what's the most effective and efficient operating model?	Tools & technology – investments made? What will drive efficiency, visibility, defensibility and intelligence?
Risk function services – what all can be transformed? What's fit for purpose?	People, culture & behavior – across all line of defense

Services View - Data Privacy & Protection

#We have worked with clients across industries on Privacy framework design and implementation from Strategy through Execution helping them comply with regulations such as GDPR, Data Protection Bill, India

Key service offerings

Data Discovery and classification

Data Privacy Assessments

Design and implementation of privacy framework

Privacy enhancing technologies

Managed Privacy services

Global & Local Clientele

- Experience working on Data Privacy with Fortune 500 Companies and large Indian corporates with global foot prints

Covering over 70+ Privacy Laws across the globe

Our Expertise

- 50+ Qualified professionals with average of 5+ years experience in privacy & security
- Successfully Delivered 50+ Data Privacy engagements
- 40+ Privacy certified professionals with certifications such as ISO 27701, CIPP/E, CIPM, OneTrust

Industries

Financial Services

Aviation

Mobile Advertisement

IT/ITES

Pharmaceuticals

Manufacturing

IT Services

Tested Tools & Methodologies

- Ready to use Policy, Procedures, Process Workflows, Templates & FAQ's
- Automated Toolkits to enable quick Privacy reviews & Data Protection Impact Assessments
- We support in bringing processes in line with these new obligations, from the diagnosis phase to the accompaniment. Our data protection team includes lawyers, consultants, auditors, risk specialists, forensic experts and strategists.

1. Privacy Planning (GDPR, PDP etc.)

2. Personal Data Inventory and Data Mapping

3. Privacy Framework Development

4. Gap Assessment and Implementation Roadmap

5. Ongoing Monitoring

Supply Chain & Third-Party Risk Management

End-to-end Third- Party lifecycle management

We provide innovative Supply Chain & Third party risk solutions that is value driven and tailored to meet Client's requirements by bringing in the proactive risk identification of risk associated with Third parties and and helping client in implementing an effective risk mitigation strategies

Our Core Offerings

Comprehensive Supply chain risk solution in identification, assessment and risk remediation in
- Plan
- Source
- Make
- Deliver
- Return

Design and implement End-to-end SRM/TPRM model-
- Governance Model
- Design Central Governance,
- Oversight and Guidance

Integrated risk framework covering various risk areas such as,
- Financial risks, Operational risks, Management Risks ,AML /Compliance Emerging Risk areas such
- ESG, Cyber/Information Security, Modern Slavery

Managed Services-Third Party Risk Management Lifecycle processes and activities:
- Identification,
- On-boarding,
- engagement,
- Ongoing oversight & change mgmt
- and exit management

Major client challenges addressed by our Managed Services

Challenges	Complexity
Increasing **regulatory scrutiny and compliances**	High
Lack of insights on third-party landscape **-**	Med
An unstructured third-party monitoring process	High
Lack of experts to manage and monitor varied risk postures for third parties on consistent basis	High

Sample clients:

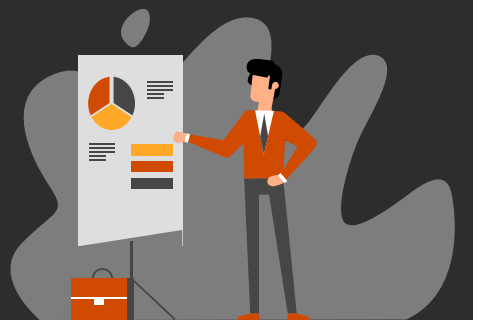
- Microsoft
- IKEA
- Vedanta,
- ICICI Bank
- Standard Chartered Bank
- Federal Bank
- IDFC Bank
- Barclays
- UBS
- BNY Mellon

Why PwC India?

- One Stop Provider for end-to-end TPRM needs, supporting clients in their day-to-day business
- Extensive and specialized knowledge across supply chain and third parties across industry domains

Key Differentiators

- **Experience of handling numerous SRM/TPRM** projects in Industry space helping clients in designing, implementation and running comprehensive Third party risk management prog. Including vendor governance prog.
- **Our 'Depth of Regulatory Knowledge'** to give you a balanced operating model aligned with regulatory expectations
- **Integrated team of experts having global expertise in key domain areas** such Operational, Human rights and Legal and Regulatory, Cyber Security, Reputation, ESG etc
- Our 'Proprietary product such PwC Prudence, **PwC-TP Risk Protect** and other tools help you digitalize and automate TPRM Lifecycle



Services View - Governance, Risk & Compliance

Our Capabilities

Teams

Functional Consultants

Technical Developers

System Architects

PMO, Quality & Risk

Infrastructure Support

Automation

Robotics, AI / ML, Modelling, Data Mining, and CCMs Analytics, PwC IP

Alliances

Alliances and Relationships with the leading GRC Product Vendors

Accelerators

Frameworks, Scripts, Operating Model, Project Plan based accelerators

Sectors / Industries

- Financial Services
- Global Captives
- FMCG
- Oil & Gas, Power & Utilities
- IT & ITeS
- E-Commerce
- Retail
- Steel
- Pharmaceutical
- Manufacturing
- Media
- Professional Services

GTM Proposition in Risk Transformation

Core Risk Transformation Service Offerings

Dipstick Reviews, Strategy and Roadmap	Vendor Selection	Framework Design, Process Standardization	End to End GRC Technology Implementation	GRC Managed Offering

SELECT GRC Use Cases

Integrated Risk Management	Continuous Controls Monitoring & REPORTING	Audit, Policy & Compliance
Third Party Risk	Data Privacy ROPA	Business Continuity Incident Management
Operational Risk Management	Cyber & Technology (ITSM, ITAM, SecOps. DevOps)	Fraud Crime and Compliance, FTP, PFT, ALM, EFPA, BSP, LRM

Others (Navex, Galvanise, PwC IP)

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Targeted Regions:

US	**Europe**	**SEAC**
UK	**Middle East**	**Canada**
	New Zealand	**Australia**

Services View – ERP Governance, Risk & Compliance

Our GRC team helps in Proactively managing technology risks, business process & compliance risks and maintaining the business continuity and operational resilience. Within BRC, we have a pool of **80+ subject matter experts** in GRC Team who specialize in SAP, Oracle & Security who have delivered wide range of **GRC Projects for Fortune 100+ Companies**.

Wide Variety of Project Experience...

- 60+ large scale SAP GRC & Security Engagements
- 15+ Oracle Risk Engagements & MS Dynamics Engagements
- 40+ Global engagements driven by our PwC India team remotely
- 40+ Team members with certifications: CISA, SAP GRC, SAP Functional Certifications

Benefits for your clients..

- Increased Expertise
- Improved Business Focus
- Improved Compliance
- Skilled pool of resources
- Agility & Faster Response Time

Network Firms:

- PwC Switzerland: SAP GRC, Role-Redesign, SoD Clean-up
- PwC UK & UAE: SAP GRC, SoD Clean-up, Rulebook Review, Mitigation Control, SAP Functional & UI Masking
- PwC US: SoD Clean-up, Mitigation Control, SAP Functional
- PwC Germany, Vietnam, KSA and others

Our Core Service Offerings in GRC Space

GRC and ERP Security (SAP, Oracle & MS Dynamics)

- **Managed services -** Application Security & GRC
- **ERP Security** – User access matrix definition, role re-design/ clean-up
- **ERP GRC** – GRC Implementation, pre and post implementation support
- **iRPA -** BOT implementation for continuous monitoring along with SAP GRC AC/ PC
- **Continuous controls monitoring** using GRC PC/ custom scripts
- **Key Risk indicator Definition and design** using GRC RM
- **SOD ruleset** - Rulebook design and analysis
- **Mitigating controls** – Design & automation

Data Governance & UI Masking

- **UI Masking Implementation**
- **Data governance design and monitoring**
- **Data Privacy and Security**

Marquee Clients with Network Firms:

- ABB
- Fujitsu
- Compass Group
- National Grid
- PepsiCo Inc.
- Stericycle
- Lifeblood
- First Abu Dhabi Bank
- Saudi Electric Company
- OpenText
- Shell
- CitiBank

Key Differentiators

- **Past Experience** We have successfully executed multiple large-scale engagements enabling our team wide variety of experiences and assisting clients in their maturity journey
- **People** Experienced resources with diverse skill sets and On-demand resource augmentation
- **Tools & Technology** In-house developed tools to support engagements and Hands-on experience on emerging technologies
- **Off-Shore Delivery** Flexible off-shore, onsite and hybrid model as per requirements
- **Knowledge Base** Good repository of accelerators built over the years for fast tracking engagement execution

Industry Sector • Power & Utilities • BFSI • Manufacturing • Automobile • Technology Services • Oil & Gas

Services view - ERP/Application Security & Controls

Enabling clients to design, implement and operate a robust, preventive controls and security environment across their ERP landscape

Configurable and Interface Controls
- **Design and Test**
- **Continuous monitoring through Centre of Excellence (COE)**
- **SAP and Oracle GRC Implementation – Process Controls**

Segregation of Duties (SOD) Management
- **Role Design**
- **Managed service through COE**
- **SAP and Oracle GRC Implementation for Access Controls**

Opportunity Landscape

01 Business Process Transformation

ERPs are an integral part of transformation exercises requiring focus on controls and compliance

02 ERP Consolidation and Implementation

Embedding controls as part of ERP upgrades, consolidation of applications and greenfield implementations

03 Risk Transformation

Controls automation design focusing on configurable and interface controls

04 Managed Services

SOD and controls monitoring challenges – bandwidth, skillset, technological aids

Benefits derived by clients

- Zero-day readiness for SOX and ICFR compliance
- Optimal reliance on ERP environments by external auditors
- Reduced :
  - cost of compliance
  - involvement of internal teams
  - fraud scenarios
- Permanent reduction of SOD conflicts
- Comprehensive and real time risk monitoring

Services view - Business Continuity & Disaster Recovery

'360 DEGREE' Approach

We look into multiple facets not only from internal organisational requirements but also external i.e. sectorial and country specific regulations.

'FLEXIBLE & ADAPTIVE' Frameworks

Flexible and adaptive framework which can accommodate unforeseen changes in business and is easy to maintain & mature.

Focus on 'RESILIENCE'

We have moved away from traditional concepts of business continuity and have a strong emphasis on Resilience.

Key accounts

Bharti Airtel	HCL Technologies	Dubai - DTCM	State Bank of India	Malaysian Airport
Dabur India	Genpact	ITC Limited	Adani Group	Cairn India

BCM Offerings

01	**BCM Framework Implementation** End to end implementation of BCM Framework
02	**BCM Gap Assessment** Determining gaps in the existing BCM framework baselined with industry standards
03	**BCM Risk Assessments** Comprehensive continuity focused threat - risk assessments around People, Technology (IT/OT), Site etc.
04	**BCP & Crisis Management Plans** Setting up Enterprise Crisis Management Framework with plans such as Business Continuity Plan,
05	**BCM & IT-DR Maturity Assessments** Assessment in-order to determine the BCM/IT-DR Maturity of the target organization
06	**BCM & Crisis Simulation Exercises** Simulation of crisis scenario and validation of the response and recover arrangements to determine overall readiness
07	**BCM Training & Awareness** Developing BCM related training and running BCM awareness campaigns
08	**BCM Audits, Assessments & Reviews** BCM Audits, Assessments & Reviews inline to requirements of Internal Audits, Regulatory Requirements

Services view – IT Audits

Rich experience in executing offshore engagements	Prior experience in conducting similar projects	Delivery Capabilities	State of art tools & technologies to provide cybersecurity services	Member firms are utilizing our IT Audits capabilities
Conducted offshore IT assessments for clients in more than **30 countries**	Conducted IT audits of various **domestic & international organizations**	**200+ IT risk management professionals** with various professional certifications such as CISA, CISSP, CEH, ISO 27001:2013 LI &LA etc.	Our **24*7 IT lab has high speed connectivity** & secure infrastructure	**Provided over 200k hours of support to PwC Network firms** for external client service in last 5 years..

Key Service Offering – IT Audits

IT General Controls Review	IT Governance & Strategy Review	IT Operations review	Application security reviews	IT Risk and Security Compliance Assessments

Services view – Software & Hardware Asset Management

Key Service Offering – ITAM Managed Services

Proactive License Management

Proactive software license management for assisting clients with identification of compliance risks and potential cost savings

SAM Tool Management

Support clients with continuous support on industry renowned applications and offering in-house developed tool to manage the inventory

SAM process design framework

Process review of software lifecycle and maturity assessment based on ISO 19770 standards

Hardware Asset Management (HAM)

IT hardware asset inventorization and review of HAM governance model including recommendations for enhancements

Key Clients

- Unilever
- Saudi Telecom
- Airtel
- Infosys
- Fareportal
- Saudi National Bank
- Oxford University
- Land'o Lakes
- Tata Group
- Flipkart
- Microsoft
- Autodesk
- Adobe
- VMware
- Dassault

Member Firms Alliance

Delivered multiple engagements in 11 different countries. In active discussions with more than 10 countries.

LMCC Team Capabilities

- 100+ Dedicated ITAM Professionals
- ~3000+ ITAM engagements delivered
- In-house developed proprietary ITAM Tool
- SMEs for 200+ software publishers
- SAM Policy Review and Implementation
- Certified experts in ITAM Tool Management

Services view – CSV

Why?

- All regulators such as US FDA, UK MHRA, and EU EMA have stringent quality management system requirements. 21 CFR Part 11 and 21 CFR Part 820.1/ 820.3/ 820.5 from FDA mandates controls around QMS.
- All companies are facing increasing cost of non-compliance.

What?

- Computer System Validation (CSV) is focused on software, infrastructure and computing platform qualification for systems that support regulated activities and records for product quality

How?

Sectors:
- Pharma
- Technology
- Chemical
- Consumer Products

Increase footprint in Global corridors:
- APAC,
- MENA,
- Africa
- EU
- Merging CSV as a solution along with PwC solutions offered to regulated sectors

100+
Man years of experience of Pharma / Biopharma / Lifesciences / Medical Device Industry Expertise

8+
years, average team member experience coupled with audit facing in US FDA, PMDA, MHRA, EU, DCGI , WHO, NPCB.

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70+
CSV, CFR, IT Compliance related projects

PMP / ISO 9001:2005 / Six Sigma - Green Belt Skills coupled with domestic and international exposure

Service Offerings

Computer System Validation / Computer Systems Assurance

CSV assistance as per GAMP5/ / company applicable requirements, from Validation Planning to Report.
- Prospective/Retrospective /Concurrent/Revalidation
- Risk based right sized approach for validation with Electronic Records & Signatures; Assessments & Reports.
- CSV documentation package support from URS, FRS, CS, DS, GxP, Risk assessments, DQ, IQ, OQ, PQ & TM.

CQV and Equipment Qualification

- Commissioning Qualification Verification for GMP facilities (Greenfield & brownfield)
- FAT, SAT Support
- Equipment Qualification as per Annex 15;
- Decommissioning
- Technology Transfer
- Facility Design Reviews

Data Integrity Audits / Assessments

Assessments for ALCOA Principles as per Data Integrity guidelines
- System specific
- Process specific
- Enterprise wide
- 21 CFR Part 11
- Annex 11
- CSV Audits. Review of CSV Compliance status and remediation's

Risk Management

- Risk Based Gap Analysis – Product Specific / Process specific
- Enterprise Risk Management (Risk Registers)
- Development of Risk Management Framework.
- Integration of Risk into QA Programmes
- ICH Q9 Risk Management Services
- ISO 14971 – Device Risk Analysis
- Validation Risk Assessments

Business Process Improvements; Automation

- Business Process Improvements, Reengineering.
- GxP & IT Road map / Strategy.
- Robotic Process Automation (RPA)/ Robotic test Automation (RTA) assessments and Implementations. Technology enablement for paperless Validation

Training

- Customized Trainings based on the company need for GxP, CSV and IT Compliance
- Workshop based trainings
- 1-5 days of Training modules based on the company need

CSV Compliance Office / Managed Services

- Managing clients IT, Quality and Compliance Services completely or Partially as Managed Services Model.
- Staff Augmentation / Loan License

Supplier Audits / Assessments

- Develop Supplier audit framework
- IT Solution / Application providers, IT Infrastructure Platform Hosting organizations/ CMOs/ Suppliers Audits

Quality Management System

- QMS Review / Develop and Upgrade Services for GxP, CSV and IT.
- Review; Develop SOPs and Templates and Work Instructions

Mock Audits

- In reference to product specific for a specific regulatory body or whole facility for ISO or WHO GMP or PIC/S certification
- Facility licensing Preparation

IT Infrastructure Compliance (In-house / Cloud)

IT Compliance as per ISPE and ITIL framework
- IT Infrastructure Review / Audit
- IT Infrastructure Qualification on Cloud / In house

Services view – QMS

Key facts…

$2-$20 Mn Cost to address warning letters for LS companies	**4000+** warning letters issued to food companies	**30%** warning letters on QMS for LS companies due to CAPA
$500 Mn Cost of resolving QMS issues	Last 2 years **500+** warning letters on GxP processes for food companies	Average cost is **$10,000** for executing one CAPA

Why

- India ranked third worldwide for pharmaceutical production and out of these 500+ are US FDA approved plants - 2000 GMP plants - at least 20% of these are planning to go for QMS automation.
- Compliance with stringent quality standards and rigorous regulations passed by FDA and other global regulations like 21 CFR Part 11 and 21 CFR Part 820.1/ 820.3/ 820.5
- Rising demand for effective management of organizational processes and the need for meeting consumer/ patient safety
- Reduce the corporate risk associated with various quality non-compliances.
- Improves organizational effectiveness with overall increase in compliance and sustainable processes at higher quality with lower cost.
- Promotes accountability at steering committee/ executives level.

How

- An digital QMS system reduces audit time and findings, and a decreases risk of product recalls.
- We have seen increasing use of automated systems to manage quality in life sciences companies.
- The illustrative processes that are automated include –
  - CAPA,
  - Event Handling,
  - Audit,
  - Change Control,
  - Deviation Management,
  - Complaint Handling,
  - Risk Management
  - Reporting

PwC has alliance with Veeva and TrackWise in North America.

Our Service Offerings

eQMS Implementation

- Assist client with new implementations for eQMS applications like TrackWise, Qualio, MetricStream, SAP ERP, etc.. and Intellect using PwCs tools and accelerators.
- Configure various QMS processes (CAPA , Deviation, Change Control etc.) as per global regulatory standards.
- Configure the application integration requirements with SAP, LIMS, DMS and TMS etc.
- Implement customized reports for the configured processes
- Design and impart trainings to SMEs on the application and make them aware on the various processes, functionality, workflows configured in the eQMS along with dos and don'ts.

End-to-End implementation of Quality Management Processes

- As-is understanding workshop
- Quality process streamlining and harmonization
- Future state quality management processes finalization
- Establish a Quality Transformation PMO, governance structure, and roles and Vendor evaluation and selection for eQMS
- Alignment of eQMS software to be implemented
- Plan, develop and realize the eQMS software implementation

Validation Services (Applicable for Pharma, life sciences and healthcare) Support

- Integrated service for implementation and validation in a single package by utilizing the experts from both the verticals.
- Design and implement CSV deliverables depending on implementation or upgrades
- End to End validation support from GxP analysis to validation reporting for eQMS application

Application Support

- Provide Application Maintenance Services (AMS) for eQMS application.
- Work on the tickets raised and help ensure resolution is provided as per the agreed SLAs.
- Provide the support in bug-fixing and process enhancements as a part of AMS.

Sectors

- Pharmaceuticals Industry
- Medical Device
- Consumer Product
- Biotech / Bio Pharma
- Nutraceutical
- Information Technology
- Oil & Gas
- Chemical
- Auto

Services view – Project Management as a Service

The PwC PMO model is customized based on client requirements and circumstances to ensure active alignment between our added-value services and client needs. The model offers flexibility so that phases sequence and deliverables may be adjusted to meet the client's priorities and requirements.

Capabilities

- **Strategy alignment assurance**
- **Progress tracking & reporting**
- **Resource management**
- **Risk/Issue management**
- **Communication & stakeholder management**
- **Interdependency & collaboration management**
- **Required standards assurance (Project Governance)**
- **Standardized tools and templates**

Delivery Models

Staff Augmented support

A targeted, skilled resource is deployed to address specific capability gaps, and bringing best practices as per PwC's toolkit

Experienced PMO professionals/Project managers/Business Analysts deployed directly with clients existing multi-disciplinary teams and working under business direction and supervised by Business. Flexibility to implement business frameworks, as well as leverage the full suite of PwC accelerators that can be used to streamline delivery by implementing standardized project processes .

Managed Services

A central team providing end-to-end Project Management Services, is deployed to deliver extensive packages of work using PwC's proprietary service catalogue, directed and supervised by PwC

A central team of highly-trained professionals with access to Full-service catalogue to allow choice of PMO elements most suited to programme, aligned to business. This model gives business the opportunity to improve rates, flexibility on resource allocation and leverage the use of both our near and offshore talent as and when required. The team is supervised and maintained under PwC completely to deliver the pre-defined outcomes. PwC will also help enhance business internal Project Management capabilities by workshops/trainings etc.

Functional Expertise

Project Management	Change Management	Business Analysis
Testing Strategy	Agile / Scrum experts	Financial Reporting
Data Visualization	Cyber Security	Integrated Risk Management

Domain Expertise

Finance	Technology	Risk & Reg.
Legal	Operations	Supply Chain
Customer Experience	Forensics	Human Resources

Team Statistics

Team

110+

Experienced Programme Managers at Senior Associate, Manager and Senior Manager grades.

Accreditations

185+

Industry-recognized project management certifications achieved collectively

Footprint

80+

Engagements across , including major financial and non-financial accounts

Experience

85%

Of our team members have minimum 2 years+ hands-on project experience

Ready to use Templates

60+

Well documented, standardised project management templates ready to use for uniformity

Services view – Integrated Risk Management

Our team provides range of services such as **strategy and direction, vendor selection, process standardization, end to end implementation and managed offerings across multiple subject areas** spanning across risk domain.

Product Implementation Expertise
- Oracle Financial Services Advanced Analytics (OFSAA)
- SAS Risk Management
- FCCM, ERM, EPM, EGL
- Risk and Finance Data Mart
- Visualization and BI Tools

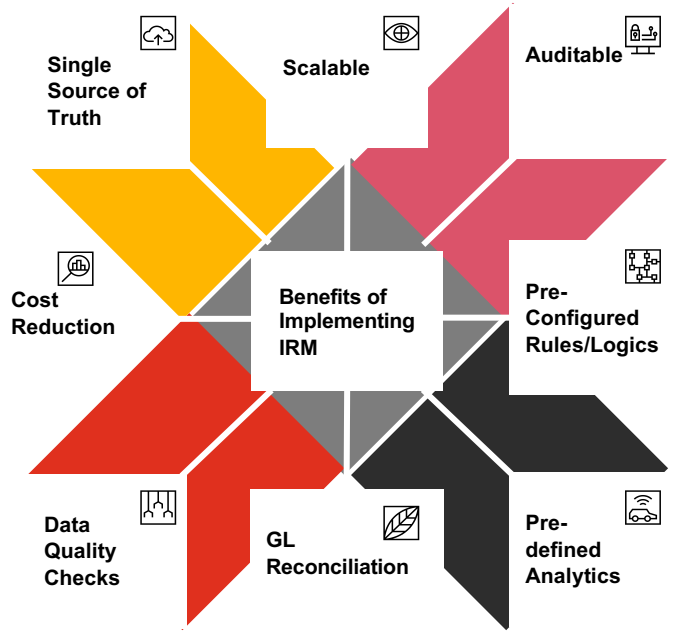
Solutions
- Enterprise Risk solutions likes credit risk, operational risk, market risk, ALM, LRM,FTP, PFT Pillar II, Stress testing, economic capital.
- Governance Compliance Management
- Financial Crime and Compliance
- IFRS 9, IFRS 17, Balance sheet Planning

Implementation Services
- End to End imple mentation of risk solution
- Configuration and Customisation as per client requirements
- Development and Testing of solution
- Automation of reporting framework
- Production and DR Migration

Managed Services
- Level 1 and Level 2 support on various risk tech solution
- Change Management for enhancements
- Daily Batch Execution and Maintenance
- Upgrades and patch applications
- Customised development
- Continuous performance improvement

Solution Designing
- Provide solution design and technological architecture
- Provide end to end data flow design
- Vendor Evaluation
- Central PMO for risk technology implementation

System Validation and Assessment
- Review system design and architecture
- Review configuration and end to process
- Suggests GAP and provide solution to fill the GAP
- Suggest enhancements to meet end objective
- Compliance and Data Deficiency Report



Benefit from partnering with PwC

An integrated, end to end implementation service to manage your Integrated Risk and finance Technology lifecycle

Product Agnostic	Sector Agnostic	
Qualified Professionals	Extensive Experience	Product Expertise
Technology Agnostic	Solution Agnostic	
Accelerators Toolkit	Tailored Approach	Commitment to co-creation

Addressing Pain Points in Project Management

PwC Project managers address potential pain points pre-emptively

Visibility

- Provide visibility to senior management about project and benefits realization
- Identify gaps in realization of strategic objectives
- Clarify and align expectations of outcomes and project decisions
- Tie in with the enterprise processes, reporting, and coordination

Evaluation

- Escalate current risks and identify potential risks proactively
- Mediate issue resolution
- Ensure proper communications to relevant stakeholders

Cost and Schedule Adherence

- Improve chances of successful completion;
- Improve schedule attainment, cost control, resource optimization and benefits achievement

Accountability

- End to end accountability of deliverables
- Clear and defined RACI
- Clarify reporting structure for escalation

Planning and Governance

- Improve monitoring and control of projects.
- Better manage business processes and systems integration
- Increase efficiency in tracking progress of projects and programs
- Integrate project plans of all dependent projects

Quality

- Adherence to the Quality Management Plan.
- Periodic audit of the processes being used to achieve quality standards
- Control quality at every stage

Standardized Templates

Services view – Project Management Model Delivery Excellence

PwC has developed a PMO model which assesses and delivers programs and projects using the 12 elements of delivery excellence

Leaders are enabled to govern and make timely decisions using high quality management information

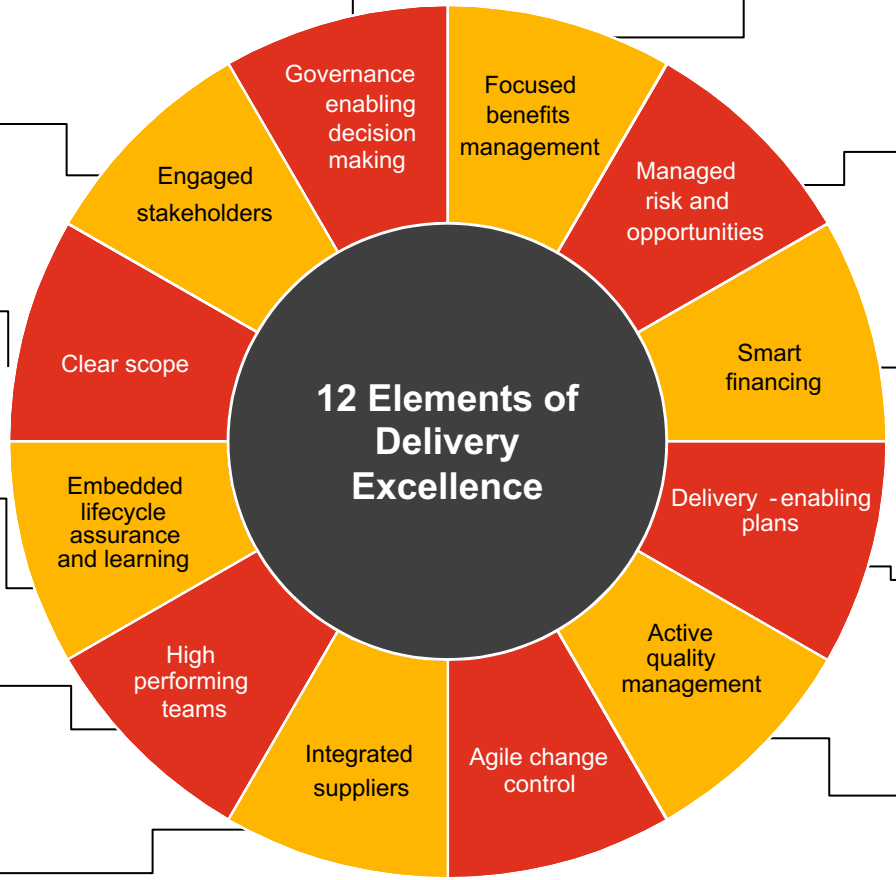
Stakeholders are identified and so kept appropriately informed so as to be able to contribute to the success of the program

The scope of the program is defined, communicated and agreed so that it supports the business strategy objectives

A clear assurance plan is defined to outline the nature, timing and extent of planned assurance, quality reviews and embeds learning

A highly motivated program team is built with organizational support, with the right blend of skills and attitude to deliver quality product

An effective approach has been taken to engage with suppliers, including adequate governance of their activities



A realistic business case with benefits is clearly defined and subjected to an appropriate level of challenge

Effective risk identification processes are put in place and the key risks are mitigated, and good opportunities utilized

The budget and associate processes and reporting standards for effective cost estimation and program financial management and reporting are established

Realistic, achievable project plans are defined and aligned with the project team, key stakeholders and suppliers

An quality plan is developed based on appropriate standards, communicated, and the right behaviors are put in place

Our Global Presence – Working with Network Firms

Mentioned below is a high-level overview of engagements delivered by our team in collaboration with Network Firms. We have additional credentials in each of the areas and have references available, if needed. We are collaborating with Network Firms on large proposals in GRC & Security Space.

Network Firm	Risk Transformation	Data privacy	Supply Chain & TPRM	GRC Services	Business Continuity	IT Audits	IT Program Management	LMCC
PwC Switzerland		✓	✓	✓	✓	✓		✓
PwC UK	✓	✓	✓	✓	✓	✓	✓	✓
PwC US			✓	✓	✓	✓		✓
PwC UAE	✓	✓		✓		✓	✓	
PwC Australia				✓				✓
PwC KSA	✓	✓	✓	✓	✓	✓		✓
PwC Netherlands				✓				
PwC Vietnam	✓			✓				
PwC Germany	✓	✓						✓

Collaboration with PwC India

We will leverage Centre of Excellence Structure for you based on the requirements specific to the engagement:

Dedicated Skilled Resources
- Deployment of dedicated skilled resources having domain expertise
- Scaling up/Scaling down of resources based on project requirement

Specialized Skillsets
- Availability of Team members specialized in skillsets needed to deliver various engagements (Oracle, SAP, Integrated GRC Solution, Data protection, BCP DR etc.)
- Adaptation to emerging technologies (e.g. iRPA Integration with ERP applications)

Committed hours from SMEs
- Devoted hours of Subject Matter Experts having relevant experience in conducting engagements virtually
- Committed hours from senior leadership team

Tools and Technology
- We will leverage our PwC proprietary as well as customized tools for performing engagements.
- Multiple POCs in progress for design & development of automation solutions

Fast Collaboration
- Depending on the project requirement, we can go for quick collaboration resulting in
  - Speedy resource augmentation
  - Accelerated onboarding to project

Service Level Agreement
- We will define SLAs/KPIs to monitor and measure the performance of CoE

Accelerator for Governance Risk & Compliance Solutions & Application Controls

GRC Access Control

- Library of automated controls to mitigate the access conflict risks and continuous monitoring of the controls
- Comprehensive risk ruleset for **350+ SoD & SAT Risks** across various industries
- Detailed mitigation controls for **200+ SoD risks**
- Customized User Access Review (UAR) solution

Oracle GRC

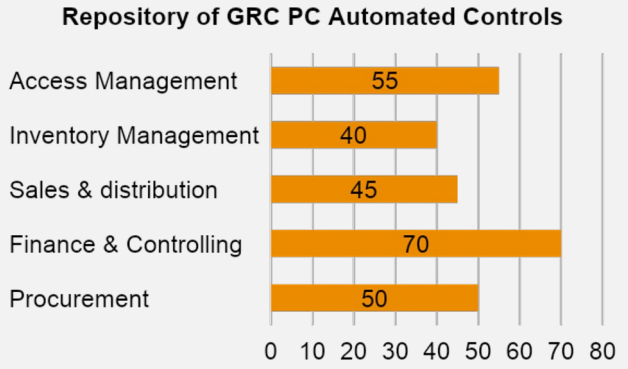
- Automated access & SoD controls
- Pre-built library of access & SoD controls
- Advanced Financial controls

Oracle Security

- Cross Application SoD Review
- Oracle Security Health Assessment
- Repository of mitigation controls

GRC Process Control

- Library of automated controls to mitigate business risks
- Custom License Management in GRC
- Customized PowerBI dashboards
- Control design steps for 200+ controls which are globally used



UI Masking

- Critical/Sensitive data masking/hide/blocking as per the business need

SAP ETD

- Custom solution to monitor critical events
- List of custom business rules for **100+ critical events**

Role Design/Re-design

- Health check reports for role & user access management
- Tool to analyze transactional data of roles & user access
- Repository of task-based roles in SAP
- Optimal Role design in Oracle and pre-built configurable security rules

SAP Risk Management

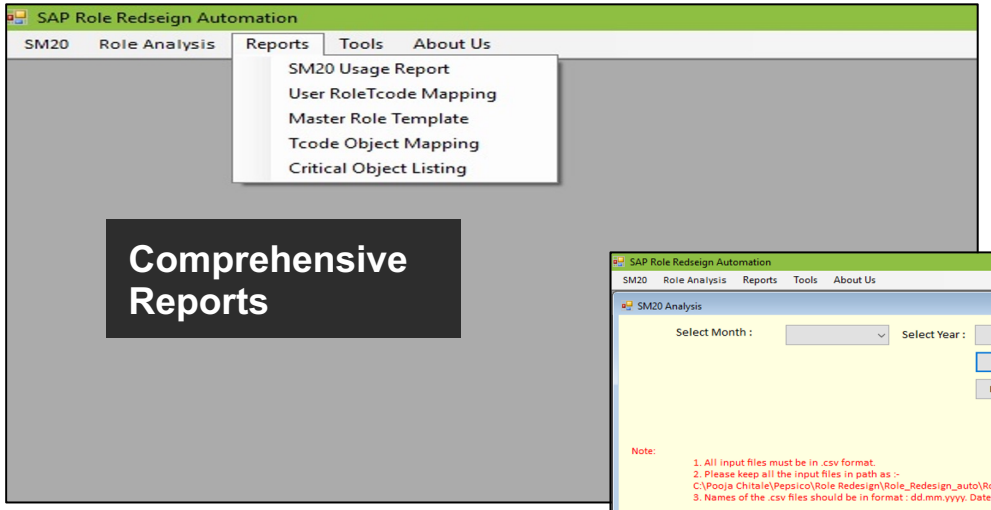
- Repository of system driven risk library to enable centralized risk and controls monitoring in SAP
- Repository of system driven mitigation plans

Our past experience that we can bring during collaboration

- **Industry Knowledge**
- **Subject Matter Expertise**
- **Strong knowledge database**
- **Design thinking approach**
- **Hybrid Project Methodology (Agile + ASAP)**

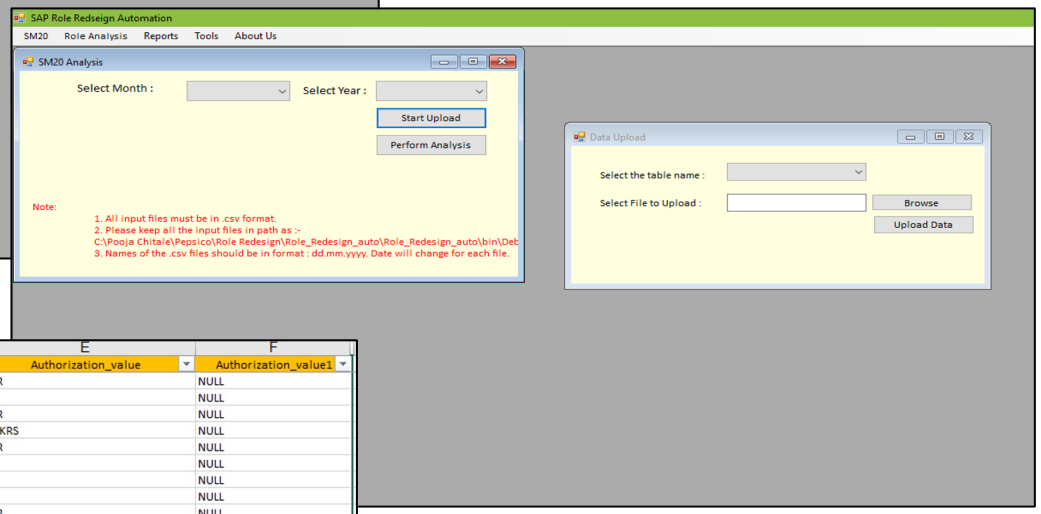
Accelerator: Access Management Automation (AMO) Tool

- **SoD Free Task Based Roles : Tool will help the organization to create the risk-free task-based roles based on the organization's requirement,**
- **Tool will make the best use of all the existing data and will give the comprehensive reports at each stage**
- **Tool will have the comprehensive knowledge database for the task-based roles, critical authorization objects and risk library.**
- **The tool will provide the design for new roles based on the analysis performed on the existing data and industry best practices.**
- **New tool will be compatible with both ECC and HANA platforms. Necessary changes for HANA compatibility will be incorporated in the tool**



Comprehensive Reports

SM20 Usage Analysis



role	tcode	authorization_obj	Authorization_	Authorization_value	Authorization_value1
ZPS:FI:AM:AST_ACQ	ABZON	A_A_VIEW	VIEW	STAR	NULL
ZPS:FI:AM:AST_ACQ	ABZON	A_B_ANLKL	ACTVT	02	NULL
ZPS:FI:AM:AST_ACQ	ABZON	A_B_ANLKL	ANLKL	STAR	NULL
ZPS:FI:AM:AST_ACQ	ABZON	A_B_ANLKL	BUKRS	$BUKRS	NULL
ZPS:FI:AM:AST_ACQ	ABZON	A_B_ANLKL	ACTVT	STAR	NULL
ZPS:FI:AM:AST_ACQ	ABZON	A_B_ANLKL	ACTVT	01	NULL
ZPS:FI:AM:AST_ACQ	ABZON	A_B_ANLKL	ACTVT	03	NULL
ZPS:FI:AM:AST_ACQ	ABZON	A_B_ANLKL	ACTVT	77	NULL
ZPS:FI:AM:AST_ACQ	ABZON	A_B_BWART	BWASL	STAR	NULL
ZPS:FI:AM:AST_ACQ	ABZON	A_B_BWART	ANLKL	STAR	NULL
ZPS:FI:AM:AST_ACQ	ABZON	F_BKPF_KOA	ACTVT	01	NULL
ZPS:FI:AM:AST_ACQ	ABZON	F_BKPF_KOA	ACTVT	02	NULL
ZPS:FI:AM:AST_ACQ	ABZON	F_BKPF_KOA	ACTVT	77	NULL
ZPS:FI:AM:AST_ACQ	ABZON	F_BKPF_KOA	KOART	STAR	NULL
ZPS:FI:AM:AST_ACQ	ABZON	F_BKPF_KOA	ACTVT	03	NULL
ZPS:FI:AM:AST_ACQ	F-90	A_B_ANLKL	ACTVT	01	NULL
ZPS:FI:AM:AST_ACQ	F-90	A_B_ANLKL	BUKRS	$BUKRS	NULL
ZPS:FI:AM:AST_ACQ	F-90	A_B_ANLKL	ANLKL	STAR	NULL
ZPS:FI:AM:AST_ACQ	F-90	A_B_BWART	BWASL	STAR	NULL
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ZPS:FI:AM:AST_ACQ	F-90	F_BKPF_BUK	ACTVT	01	NULL
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ZPS:FI:AM:AST_ACQ	F-90	F_BKPF_GSB	ACTVT	77	NULL

Output in Excel

Citations

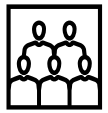
IT Controls Testing Automation using Robotics

Context & Background

- Client is one of the largest Oil and Gas exploration and production company operating in India with centers in multiple states.
- 100+ SOX IT control testing, review & maintenance was performed manually by the client
- PwC team proposed a two layered approach for control testing wherein, “Type 1” controls were purely automated by GRC PC. “Type 2” were automated by integrating RPA & GRC PC

What we Delivered

IT Process Transformation Outcome



70% Overall effort reduction

85% Increase in the accuracy rate

Centralized repository for controls across 40+ domains

Increased frequency of testing

Leveraging Best Practices of both GRC PC & RPA

The engagement was delivered within a timeframe of 6 months including end to end test of design and testing of effectiveness of controls.

How did we start?

- **We studied all the RCMs in different business processes/systems/ domains which were applicable to the client**
- **We carefully noted which all controls can be automated and via what technology which will suit the existing IT setup of the client**
- **Our suggestion of SAP GRC PC, AC and SAP iRPA (SAP BOT) was appreciated for the long-term strategy at the client**
- **We proposed 80% of automation that could be achieved using the technology suggested**
- **We delivered 80% of automation promised**

We demonstrated our skills

- **We presented demos using sandbox system and relevant case studies for control automation. Our past record of successful implementations helped us achieve our goals**

How did the process transformation helped?

Auditor Delight – Since the testing is happening in 100% of the data population with lesser human interventions and more accuracy, the new setup is expected to bring audit cost savings, better governance and reduced time to action on an exception to the client

Expansion of Work – Since client has diversified business within India, other business units are actively thinking about adoption of this successful model of control automation

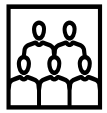
- **Domestic**
- **International**

Business Process Controls Automation

Context & Background

- Client is one of the leading automobile manufacturer
- As part of their business transformation journey, which will fundamentally change the way they operate their business, client selected SAP-GRC as a technology enabler.
- GRC team was set up to ensure that the process design operate effectively across the company and PwC was engaged to support the implementation of SAP GRC-Process Controls. The in-scope processes are Procure to Pay, Acquire to Retire, Record to Report, Order to Cash, Controlling and Inventory Management.

Key Objectives



Effort Reduction

85% increased accuracy

Centralised repository of Business & IT controls

Regular control scheduling

Automation & Reporting

PwC delivered 160 controls including end to end test of design and testing of effectiveness of controls.

Outcomes

With the automation of these controls, the organization has been able to focus on streamlining and bringing parity and transparency in its business processes and being able to plug the gaps which are either operational or system driven. These controls have also helped in automating reporting on key month end parameters for e.g., instances of delayed vendor payments, instances of overdue amount from customers which were manually extracted, hence saving time for the team.

How PwC Approached

- **PwC assisted the client team in identifying key controls to be developed, discussed and designed logic for automation of the identified controls**
- **As part of implementation, developed the logic in system (custom program/standard)**
- **Carried out the entire lifecycle of implementation, including performing unit testing, assisting in user acceptance testing and fixing the issues identified, if any**
- **Went live with the controls through planned go-live; moved the development to production environment, scheduled the controls for automated monitoring**
- **Preparing dashboard for management reporting**

We demonstrated our skills

- **We presented demos using sandbox system and relevant case studies for control automation. Our past record of successful implementations helped us achieve our goals**

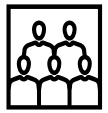
- **Domestic**
- **International**

Controls Baselining and Testing

Context & Background

- We assisted a large multinational beverages company in automating and testing it's IT controls. The project involved baselining and subsequently automating it's global controls library to enable automated testing of IT controls in 44 countries.

Project Key Objectives



Controls Standardization

Controls baselining

Controls Testing and periodic reporting

Reduction in ineffective controls' status

Enhance process efficiency and eliminate manual intervention

The engagement was delivered within a timeframe of 6 months including end to end test of design and testing of effectiveness of controls.

How did the process transformation helped?

- Greater assurance through **~100% controls monitoring**
- **Continuous improvement** in ineffective controls' statistics

- Controls **testing** methodology **standardization**
- **Streamlined** management **reporting**

Project Journey

- **Year 1: Assisted the company in identifying IT controls applicable for each country using their global templates as the base. PwC also assisted the company in identifying design gaps, updating the test scripts and testing the controls**
- **Year 2: RPA Introduction: PwC developed scripts to extract configuration related data from SAP servers and analyzed the extracted data using automated tools.**
- **Year 2-3: PwC included testing of additional controls by including transactional and master data. Controls automation was further strengthened**
- **Year 2 onwards: The project was executed successfully for 4+ years, for 40+ countries and 2,000+ controls tested annually**

We demonstrated our skills

- **We presented demos using sandbox system and relevant case studies for control automation. Our past record of successful implementations helped us achieve our goals**

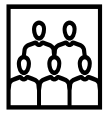
- **Domestic**
- **International**

Supporting Risk Resilience, security design and operations for one of the world's largest Oil and Gas major since 2017

Context & Background

- PwC is responsible for supporting the client across multiple cyber security requirements to improve their compliance posture, adhere to regulatory requirements and increase the risk resilience of their environment.

Key Objectives



Management

Efficiency

Reporting

Support

Risk Assessments & Vulnerability Management

The engagement was delivered within a timeframe of 6 months including end to end test of design and testing of effectiveness of controls.

Outcomes

Increased Protection: Conducted risk assessment across the client's information technology landscape and supported in addressing risk for applications, infrastructure and platforms alike.

Increased Efficiency and Decreased Cost: Work with the client's Global In-house Center (GIC) in flexible delivery models to increase GIC workload and deliver consistent outcomes.

Faster Response Time: A skilled responsive team driving business agility across various business processes to ensure security becomes a business enabler and not an overhead or a blocker.

How PwC Helped

- **Protecting the Crown Jewels:** Performed risk assessments based on Client's risk management methodology to identify risk to critical assets
- **eGRC integration support:** Developed, tested and rolled out multiple iterations of client's GRC too. Also delivered integration activities with enterprise applications
- **Cyber Forensics:** Malware and incident analysis to identify Indicators of Compromise (IoC).
- **Data privacy requirements**: Validated the designed controls around Personal Data and completed the necessary review with the Data privacy Legal counsel.
- **Threat and Vulnerability Management:** Execution of Penetration testing activities on core infrastructure and applications includes reporting vulnerabilities and re-testing once reported as remediated.
- **User identity visibility:** Cleanup of user identities across 200+ applications across client's affiliates
- **RPA secure implementation:** Continuously assessed and monitored the nature of the bots that were deployed and incorporated security best practices through workshops/ sessions
- **Risk PMO support:** Risk Project management in area of cyber security, information security, risk assessments and implementations of services/applications across IT

- **Domestic**
- **International**

Thank you

Data classification: DC0 (Public)

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