Approaching Robotic Process Automation with confidence
Robotic Process Automation - In a nutshell

- **Computer coded software**: Independent but compatible
- **Mimic interactions of users**: Scalable and auditable
- **Work cross-functional and cross-applications**: Non-Intrusive
- **Enable the automation of repetitive, rule-based processes**: Rule-based automation

Enable the automation of repetitive, rule-based processes.
Where does RPA sit on the automation spectrum?

The Technology Continuum represents a forward-looking perspective on the evolution of RPA capabilities over time.

Today

- **Macros and Scripts**
  - Rules-based automation within a specific application

- **Business Process Automation (BPA)**
  - Reengineering existing business processes e.g. workflows

- **Robotic Desktop Automation (RDA)**
  - Automating repetitive tasks on your desktop (supervised)

Future

- **Robotic Process Automation (RPA)**
  - Automating labor-intensive, repetitive activities across multiple systems and interfaces (supervised & unsupervised)

- **Intelligent Process Automation (IPA)**
  - Combining RPA with artificial intelligence technologies to identify patterns, learn over time, and optimise workflows

Algorithmic Business

- Industrialised use of complex mathematical algorithms to drive improved business decisions or process automation for competitive differentiation

How do RPA and IPA differ?

RPA directly mimics human behaviour

IPA learns how to become more efficient
What are the expected benefits? Why organisations adopt RPA?

**Low risk**

Non-invasive technology

RPA can be overlaid on existing systems, allowing creation of a platform compatible with ongoing developments in sophisticated algorithms and machine-learning tools.

**Accuracy**

The right result, decision or calculation the first time.

**Consistency**

Identical processes and tasks, eliminating output variations.

**Audit trail**

Fully maintained logs essential for compliance.

**Productivity**

Freed up human resources for higher value-added tasks.

**Scalability**

Instant ramp up and down to match demand peaks and troughs.

**Retention**

Shifts towards more stimulating tasks.

**Saving potentials**

**Cross-industry**

RPA can be used across industries since it follows procedures in use.

**Reliability**

No sick days, services are provided 365 days a year.

**Right shoring**

Geographical independence without business case impact.

**Audit trail**

Fully maintained logs essential for compliance.

**Scalability**

Instant ramp up and down to match demand peaks and troughs.

**Duration**

RPA projects run in 4 week sprints with a return of investment below 1 year.
Where does RPA really work?

- Bridging legacy systems
- Service quality improvement
- Reduced cycle times
- Compliance & Control
- Data integration
Key learnings from our Robot implementations
RPA journey at a public sector organisation

Prototype

RPA foundation (Proof of value)

Build Automation Roadmap

Pilot

Perform Wider Automation

Build Internal Capabilities

Industrialisation

Provide External Support

Set Up Centre of Excellence

Ideation

Automation ideas

Opportunity assessment

Backlog opportunities

Sprint Backlog & Planning

Short dev sprints (2 weeks)

Digital Workforce

Production BOT

Changes, new opportunities, updates

Improvement

Project Board

Delivery team

Continuous improvement
Assign announced students to team lists

Send employment mails

Process student documents (mail / web form)

Add student data in HR system and download contract

Request access badge through web tool

Process signed contracts
The robot in action (video)
Lessons learnt from our projects

- Identify opportunities and start small
- Optimise before automating
- Exception handling
- Access & authorisations
- Testing is crucial
- Think about the quality
- Early involvement of IT, Security and Risk
- Communication and training
“FAIR” bots

Risk and controls challenges from AI & RPA implementations
New risks and challenges introduced by robots

It’s important to get all the steps right and to think about the risk and controls upfront. Honing your focus on the relevant risks and asking the right questions will ensure you get the most out of your RPA investment.

**Human risks (examples)**

- Human errors, e.g. resulting in incorrect data entries or data processing
- Insufficient review and exception management
- Control activities are not executed in a timely manner
- **Completed control activities are not properly documented or control evidence is not properly stored**
- Humans perform unauthorised activities or are given inappropriate access to systems
- Segregation of duties issues within small teams
- Lack of systems, process and controls understanding
- **Controls and process breakdown due to the lack of communication between teams (i.e. onshore & offshore)**
- Turnover or absence of key control owners

**Bot risks (examples)**

- Configuration errors; controls executed by bots are not suitably designed or operating effectively
- Insufficient exception management and alerting
- Insufficient bot monitoring or oversight
- **Under logging (or over logging) of audit trail**
- Bots are given inappropriate access to systems, and humans have inappropriate access to the RPA technology
- Segregation of duties issues for developers/configurators
- Lack of documentation and communication, e.g. the system change management process doesn’t take into consideration bots
- **Absence of a back out/back up plan in case of RPA failure**
- Cyber security of bots
Risk framework for RPA and AI

**Functional**
- Business Process Controls
- Business Process Redesign
- Functional Requirements
- Performance
- Methodology

**Operational**
- Regulatory Compliance
- Operating Effectiveness
- Benefits Management
- Business Continuity and Disaster Recovery
- Control Centre Governance
- Monitoring/Quality Control
- Audit

**Governance**
- Commitment
- Sponsorship
- Business objectives
- Organisation Priority
- IT Asset Management

**Technical**
- Methodology
- Configuration
- Testing
- Operational Readiness
- Deployment
- Legacy System Changes
- Information Security
- Data and Privacy Security

**Program Management**
- Planning
- Scope
- Decision Making
- Resource
- Integration
- Oversight
PwC “FAIR” (Framework for AI and Robotics)
Details risks, controls and supports preparation of AI & RPA audit program