pwc

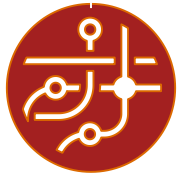
Approaching Robotic Process Automation with confidence

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*

Where does RPA sit on the automation spectrum?

Today → **Future**

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

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 repetive tasks on your desktop** (supervised)

Robotic Process Automation (RPA)

Automating labor-intensive, repetitive activities across multiple systems and interfaces (supervised & unsupervised)

Intelligent Process Automation (IPA)

Aliases: Cognitive Computing, Smart Workflows

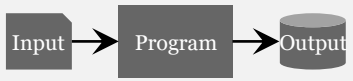
- **Combining RPA with artificial intelligence technologies** to identify patterns, learn over time, and optimise workflows

Algorithmic Business

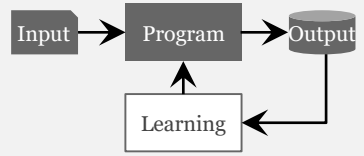
- **Industrialised use of complex mathematical algorithms** to drive improved business decisions or process automation for competitive differentiation

How do RPA and IPA differ?

RPA directly mimics human behaviour



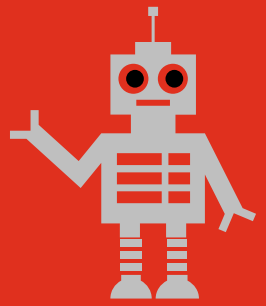
IPA learns how to become more efficient



TECHNOLOGY STATE ▶ Current State Trending ⏭ Future State

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.

Saving potentials

Audit trail
Fully maintained logs essential for compliance.

Productivity
Freed up human resources for higher value-added tasks.

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.

Retention
Shifts towards more stimulating tasks.

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

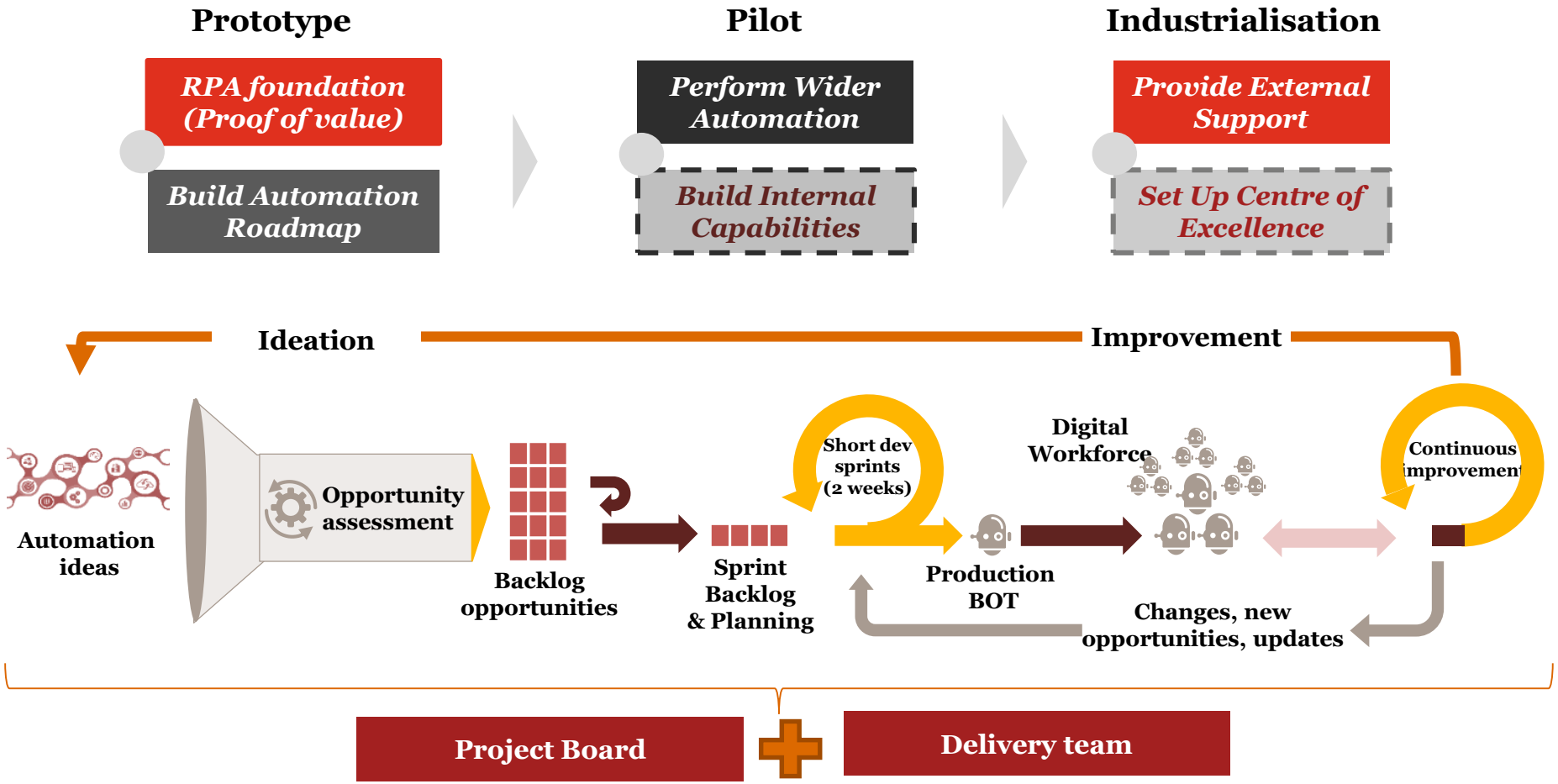
Duration
RPA projects run in 4 week sprints with a return of investment below 1 year.

Where does RPA really work?

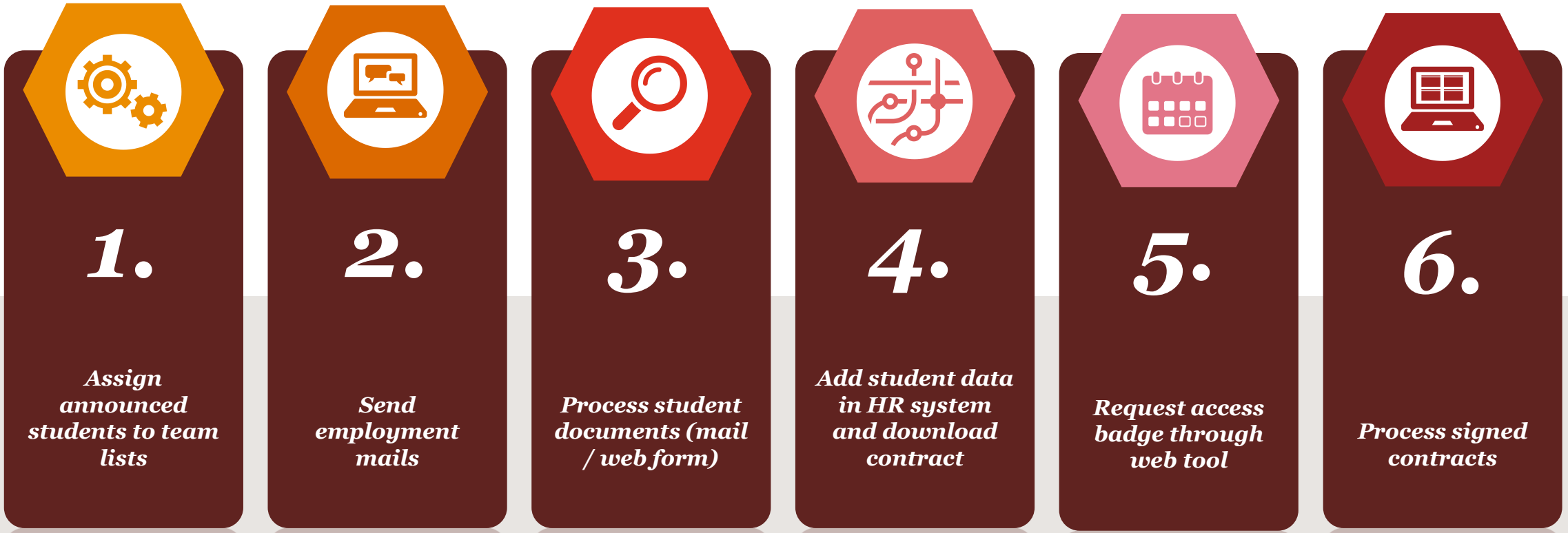
- *Bridging legacy systems*
- *Service quality improvement*
- *Reduced cycle times*
- *Compliance & Control*
- *Data integration*

Key learnings from our Robot implementations

RPA journey at a public sector organisation



Automatic registration of job students



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

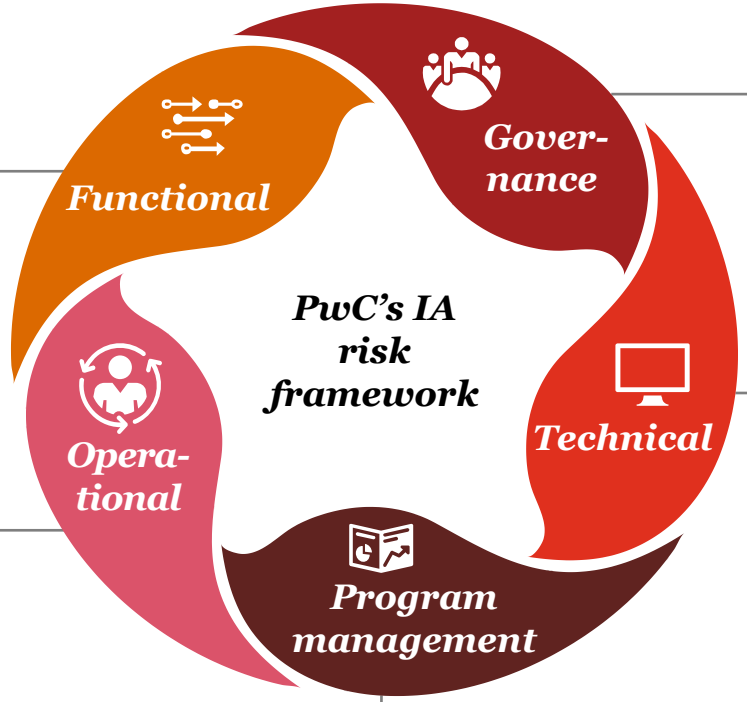
Bot risks (examples)

- **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