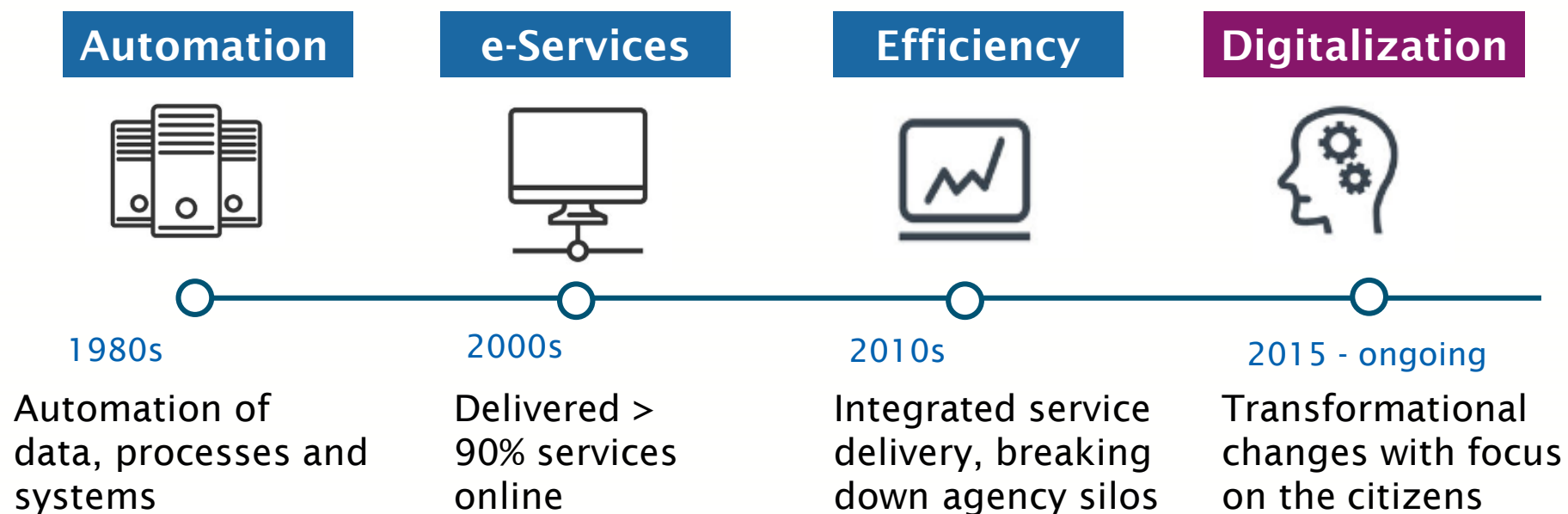


# Global Government Innovation Summit

## Innovation in Process Automation *Singapore's Public Sector Journey*

Paul Loke  
Accountant-General's Department  
February 2019

# Singapore Government's digitalisation journey



# Smart Nation is about using technology to achieve significant transformation

In the areas of ...



## Digital Economy

- Increased business efficacy
- New jobs and opportunities
- Supporting Future Economy



## Digital Government

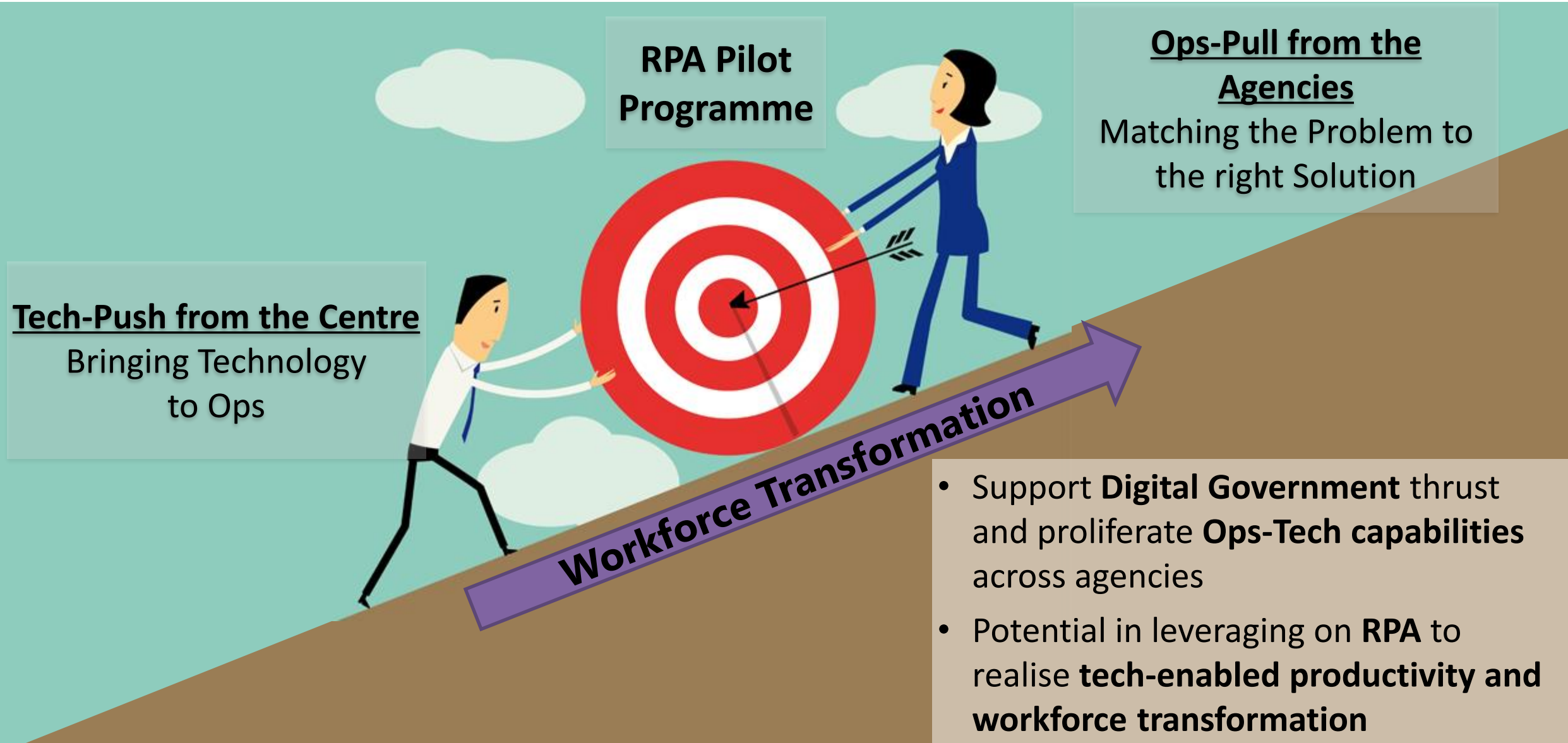
- Integrated and seamless Government services
- Greater intelligence for policy making and operations



## Digital Society

- More convenient and connected lived experience
- Sense of optimism and opportunity

# Public Sector Transformation – Ops-Tech Integration



# Public Sector RPA Programme



Test out and implement RPA in public agencies' business environment



Assess benefits (productivity gains, ROI, scalability to other business processes, etc.) within agency and within the Public Service



Enable capability build-up with dedicated RPA team to propagate RPA and related automation solutions across Public Service

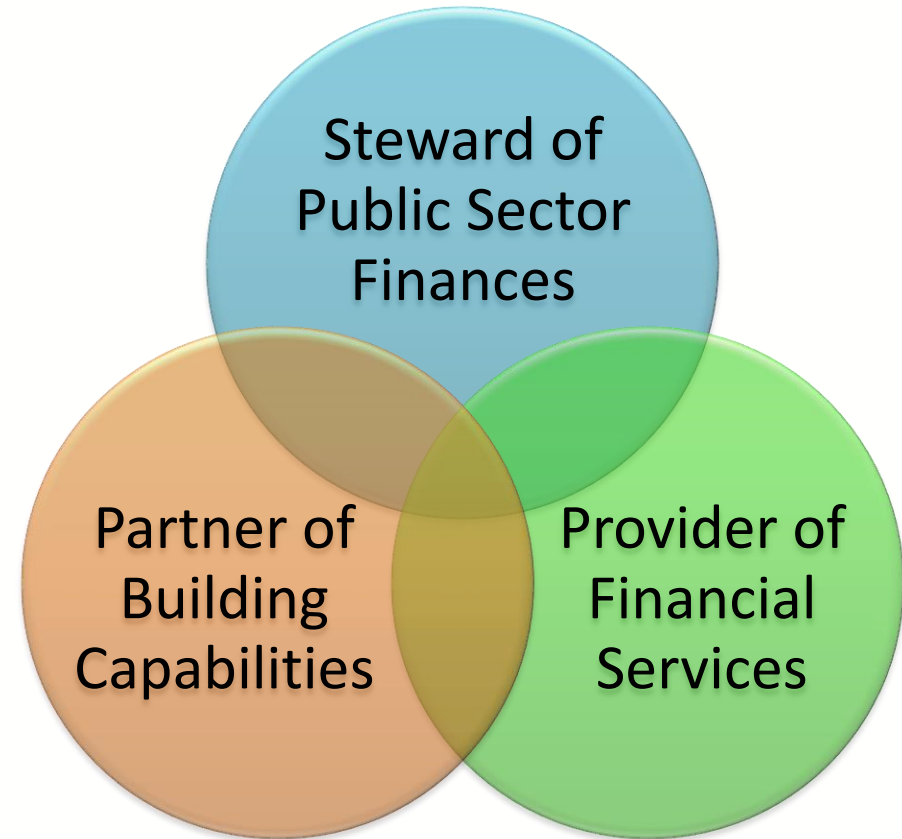
# Wide Representation of Agencies & “Archetype” Processes

|                         |             |   |
|-------------------------|-------------|---|
| Human Resources         | AGD         | Payroll Audit on Merit Increments, Performance Bonuses and Salaries |
|                         | EDB         | Calculating Promotion Eligibility                                   |
|                         | MINDEF      | Processing Self-Employed Make-up Pay Claims for Nsmen               |
|                         | NP          | Contract Management for Associate Lecturers and Full Time Staff     |
|                         | PSD         | Staff On-boarding   |
|                         | A-STAR      | Exit Clearance for Employee Resignation                             |
|                         | MOE         | Staff Deployment  |
| Finance and Procurement | GovTech     | Monthly Expense Reporting   |
|                         | NEA         | Process Purchase Order and Purchase Request                         |
|                         | NLB         | Publishing of ITQ in GeBiz  |
|                         | PUB         | Cash Collection Receipting Process                                  |
|                         | IMDA        | Payment processing of Accounts Payables (AP)                        |
|                         | NRF         | End-to-end Payment Processing                                       |
|                         | StateCourts | Reconciliation of Budget and Expenditure                            |
| Business/Ops            | CAAS        | Air Traffic Reconciliation  |
|                         | HDB         | Managing Payment and Billing to Service Providers                   |
|                         | SSG         | Course Providers’ Request Approval                                  |
|                         | MTI         | Tracking of Industry Transformation Maps                            |

# THE AGD EXPERIENCE

# Accountant-General's Department

- A department under the Ministry of Finance
- Manage civil service wide systems including government's accounting, cash management, payments to vendors, payroll and claims to serving officers, and government pensions
- Service Delivery:
  - Over 100,000 vendors providing Goods & Services to the Government
  - Over 120,000 serving officers and pensioners monthly





# Supporting Public Sector Finance Transformation

## MISSION

*Putting finance at the heart of decision-making*

## VISION

*A future-ready leader in transforming Public Sector finance*

### Strategic Finance Leader

“Leader in the Transformation of Public Sector Finance”



- Strengthening policy formulation and implementation through finance
- Transforming systems and processes
- Building capabilities

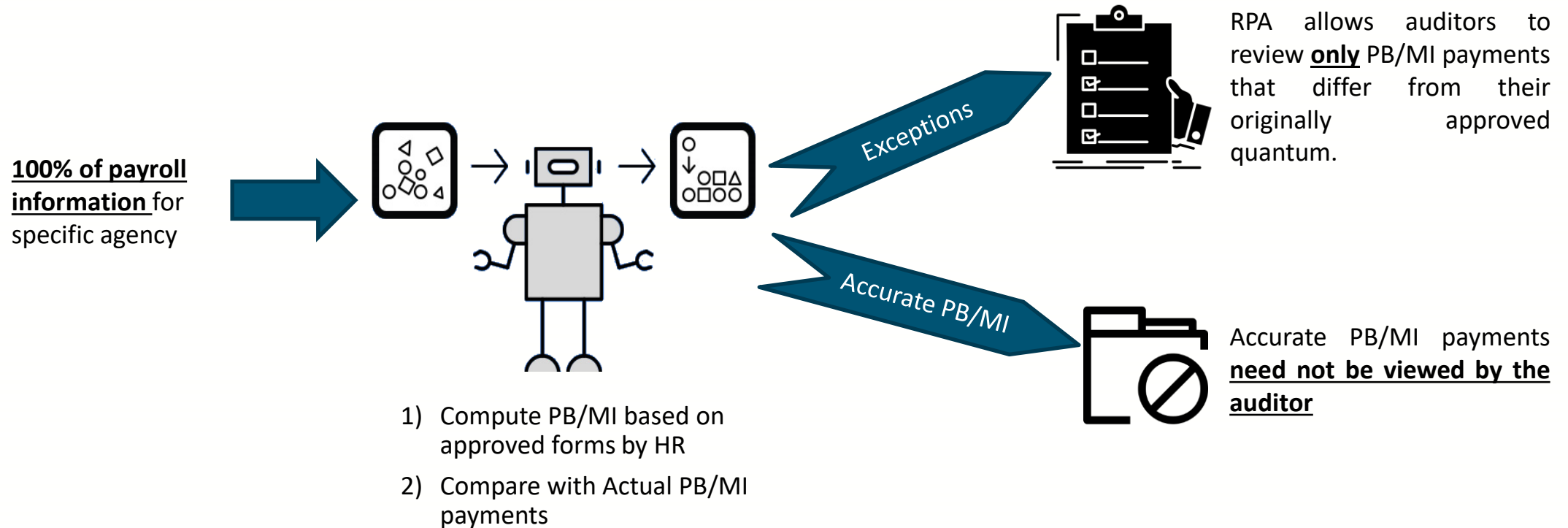
# Financial Analytics



# Early Exploration

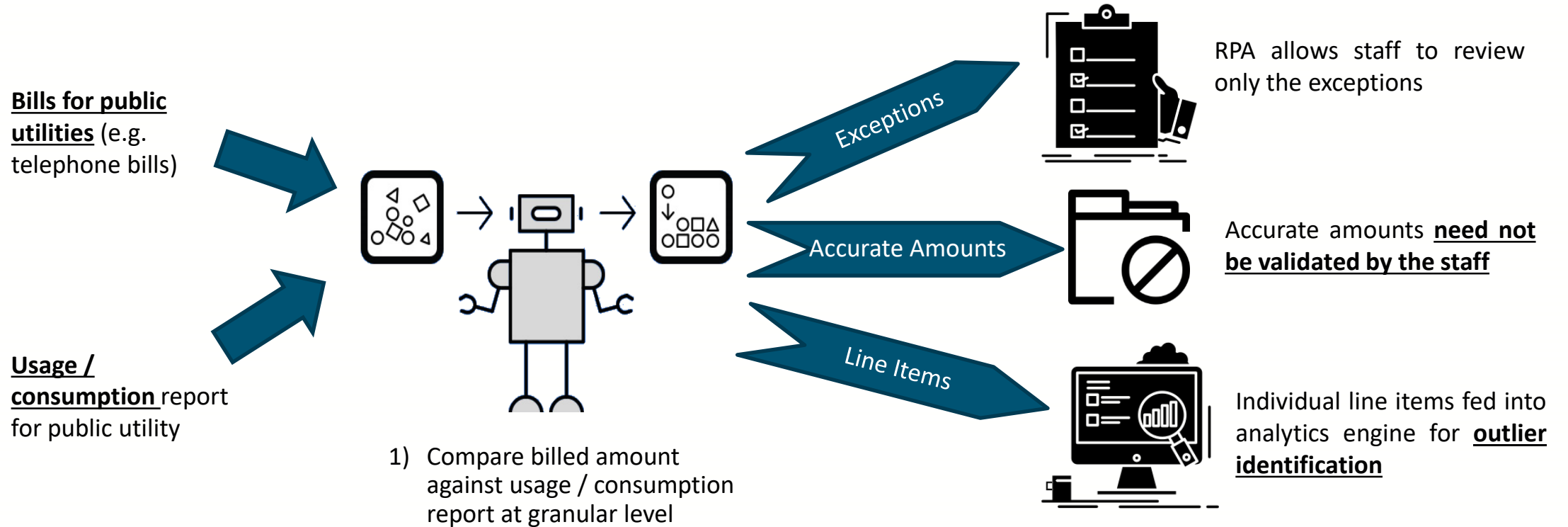
- Small, agile trials with simple use cases
  - Increase awareness of RPA
  - Allow staff to learn and get comfortable with automation
  - Simple use cases that could be implemented with free tools
- First pilot implementation – Daily Update of Exchange Rates into NFS@Gov (Civil Service Finance System)
- Other projects include:
  - Payroll Audits
  - Public Utilities Block Billing (PUBBS) Post Payment Checks
  - Bank Reconciliation

# Payroll Audits



RPA with **minimal human intervention** allows the auditors to gain additional insights and look into areas otherwise deemed confidential without **compromising the confidentiality of data**

# Public Utilities Block Billing (PUBBS) Post Payment Checks



- RPA **reduces the time** taken by staff to check the monthly bills and allows **analysis of the individual line items** to identify outliers / anomalous trends
- RPA can be shared with other government agencies, most of which undertake similar checks for the usage / consumption of public utilities

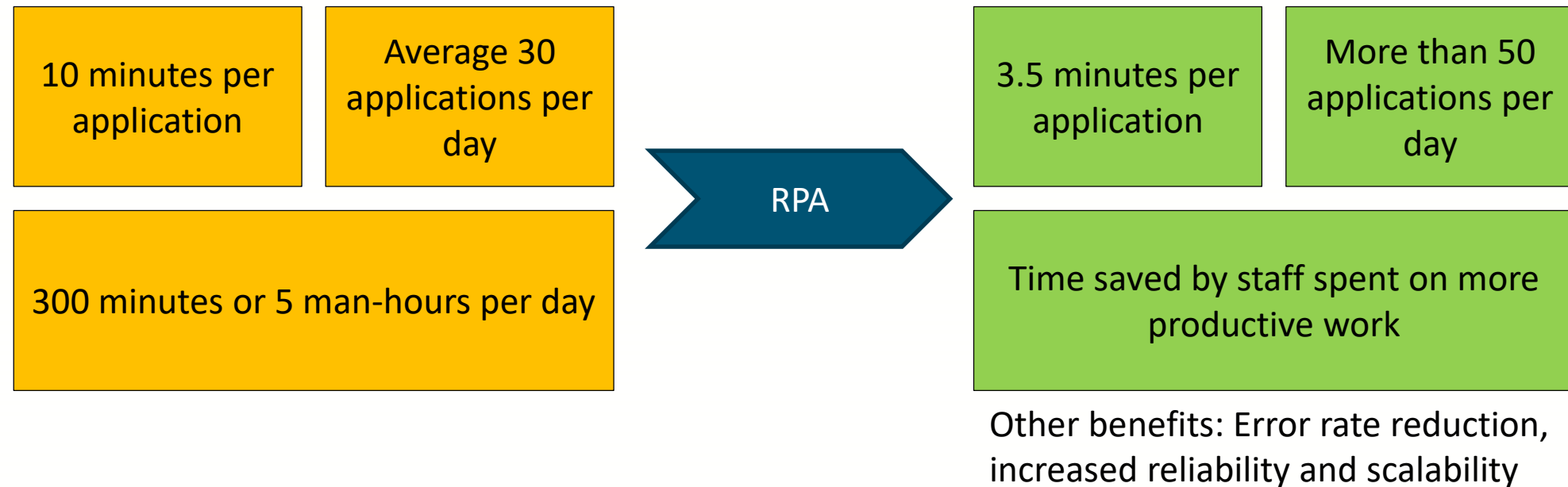
# Other Opportunities

| P# | Process Name                                       | Estimated Benefits<br>(hours per annum) |
|----|--|---|
| P1 | Intermediary Bank Account Reconciliation           | 672                                     |
| P2 | Asian Currency Unit Reconciliation                 | 288                                     |
| P3 | Statutory Board Account Reconciliation             | 384                                     |
| P4 | Daily System Administrator Activity Audit<br>Check | 770                                     |

# OTHER PUBLIC SECTOR EFFORTS

# Land Transport Authority

- About 50 applications for private hire car driver's vocational licenses daily at LicenseOne Portal
  - Each application has more than 55 fields of information
  - LTA staff subsequently manually transfer this information into legacy system for downstream processing





# VITAL (Government Shared Services)

|                                |   |
|--------------------------------|---|
| <b>Human Resources</b>         | Updating of Deployment Transactions   |
|                                | Updating Leave Transactions   |
| <b>Finance and Procurement</b> | Creation of Deposit Records   |
|                                | Weekly e-invoice and late payment monitoring                                  |
|                                | Raising purchase requests and purchase orders for demand aggregated purchases |
| <b>Payroll</b>                 | Updating timesheets of casual employees                                       |

Currently exploring the use of unattended bots for large volume processing without staff intervention, and coordinating the identification and implementation of common tasks/processes for corporate services to facilitate reusability across the Whole of Government.

# Ministry of Home Affairs

|                                  |   |
|----------------------------------|---|
| <b>Workflow and Routing</b>      | Routing of certification of PO based e-invoices   |
|                                  | Routing of certification of Direct e-invoices     |
| <b>Data Entry and Extraction</b> | Preparation of Statement of Receipts and Payments |
|                                  | Deposit Account Reconciliation                    |
|                                  | Bank Reconciliation                               |
| <b>Business/Ops</b>              | Creation of asset shells                          |

# THANK YOU

Paul Loke

EM: [Paul\\_Daniel\\_Loke@agd.gov.sg](mailto:Paul_Daniel_Loke@agd.gov.sg)