



# *The Robots are Coming: Driving Efficiency in Contracting*

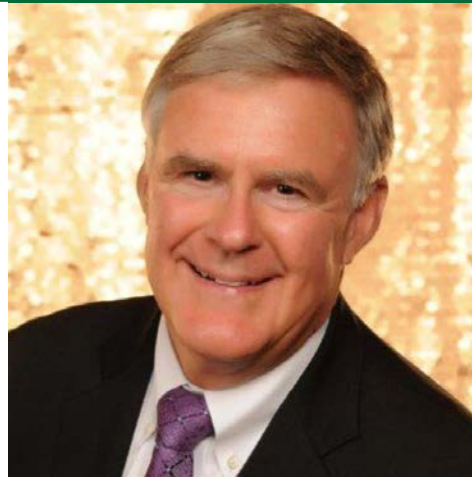
*Workshop Session #4*

March 13th, 2019



# Today's Agenda

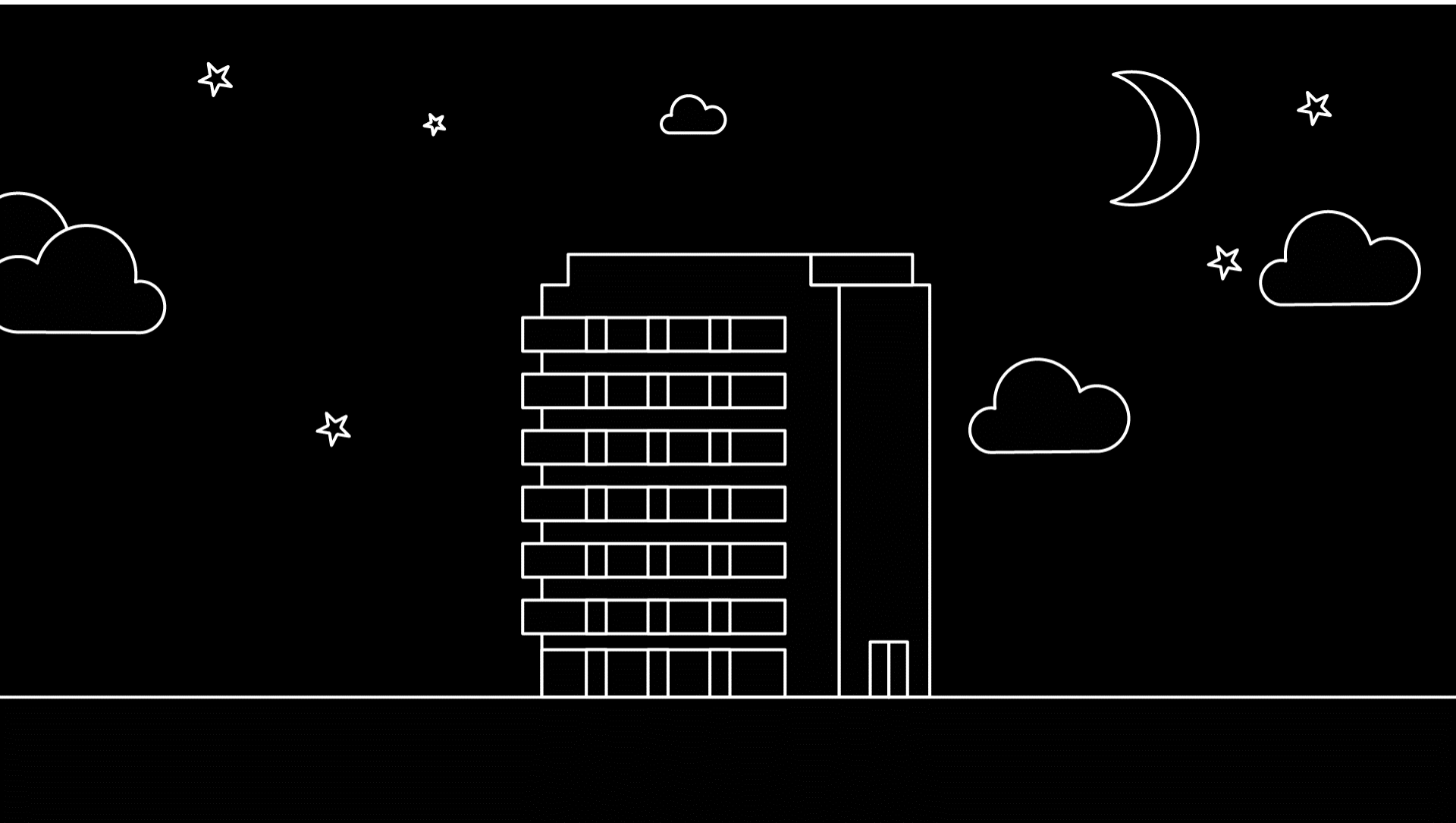
- ✓ Workforce of Today vs. Workforce of Tomorrow
- ✓ What is Robotics & Cognitive Automation and What are the Potential Impacts?
- ✓ Agencies with Robotics w/ Federal Use Cases
- ✓ *Current Processes Breakout Exercise*
- ✓ The Robotics Roadmap



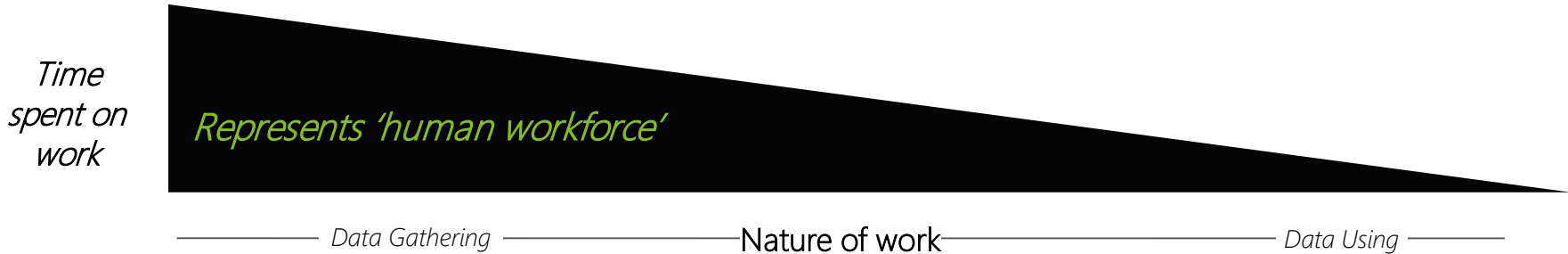
***Rick Skigen***  
*Robotics Manager*  
*Deloitte Consulting*

***Robert "KNOB" Moses***  
*Specialist Leader*  
*Deloitte Consulting*

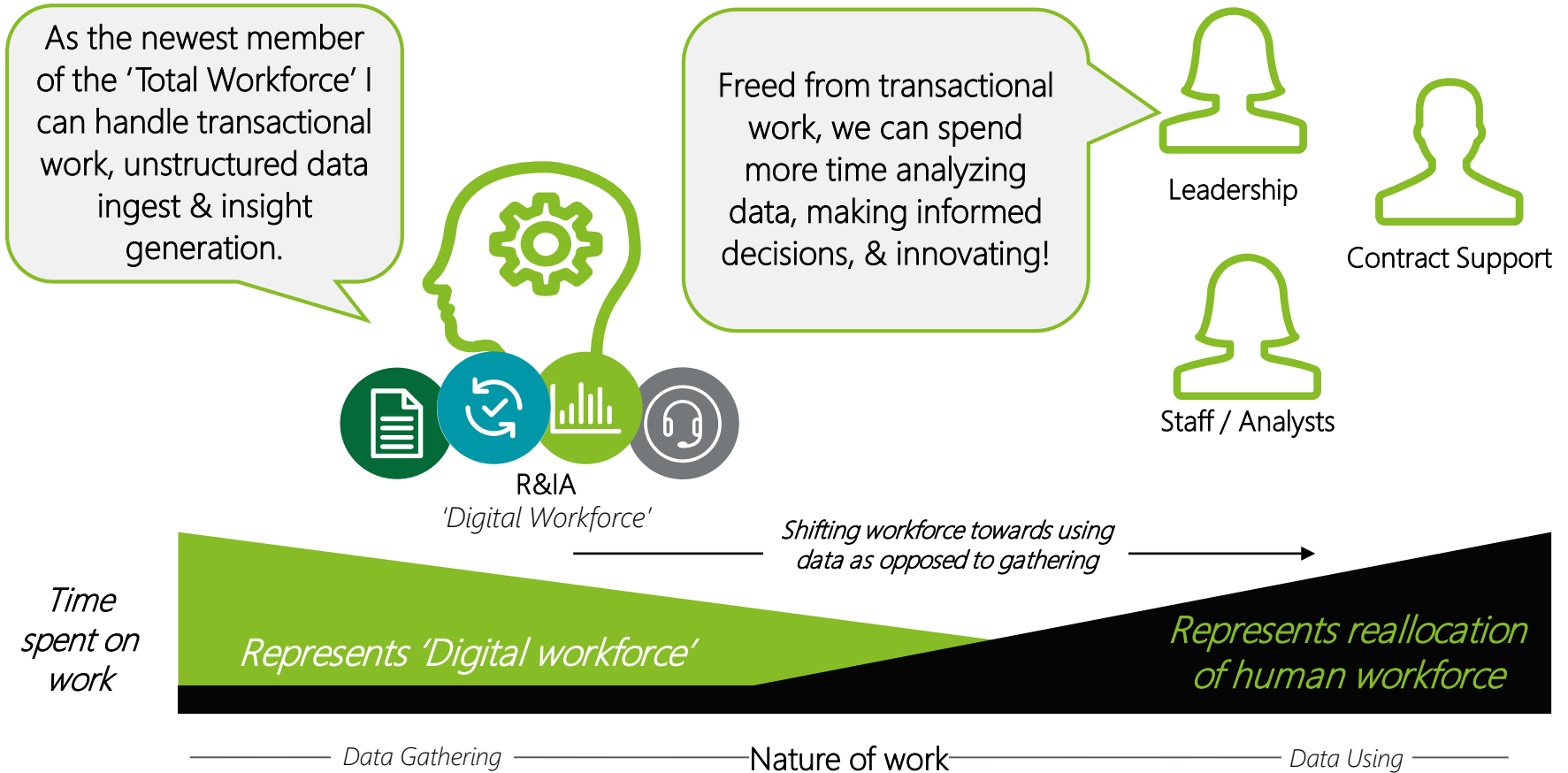




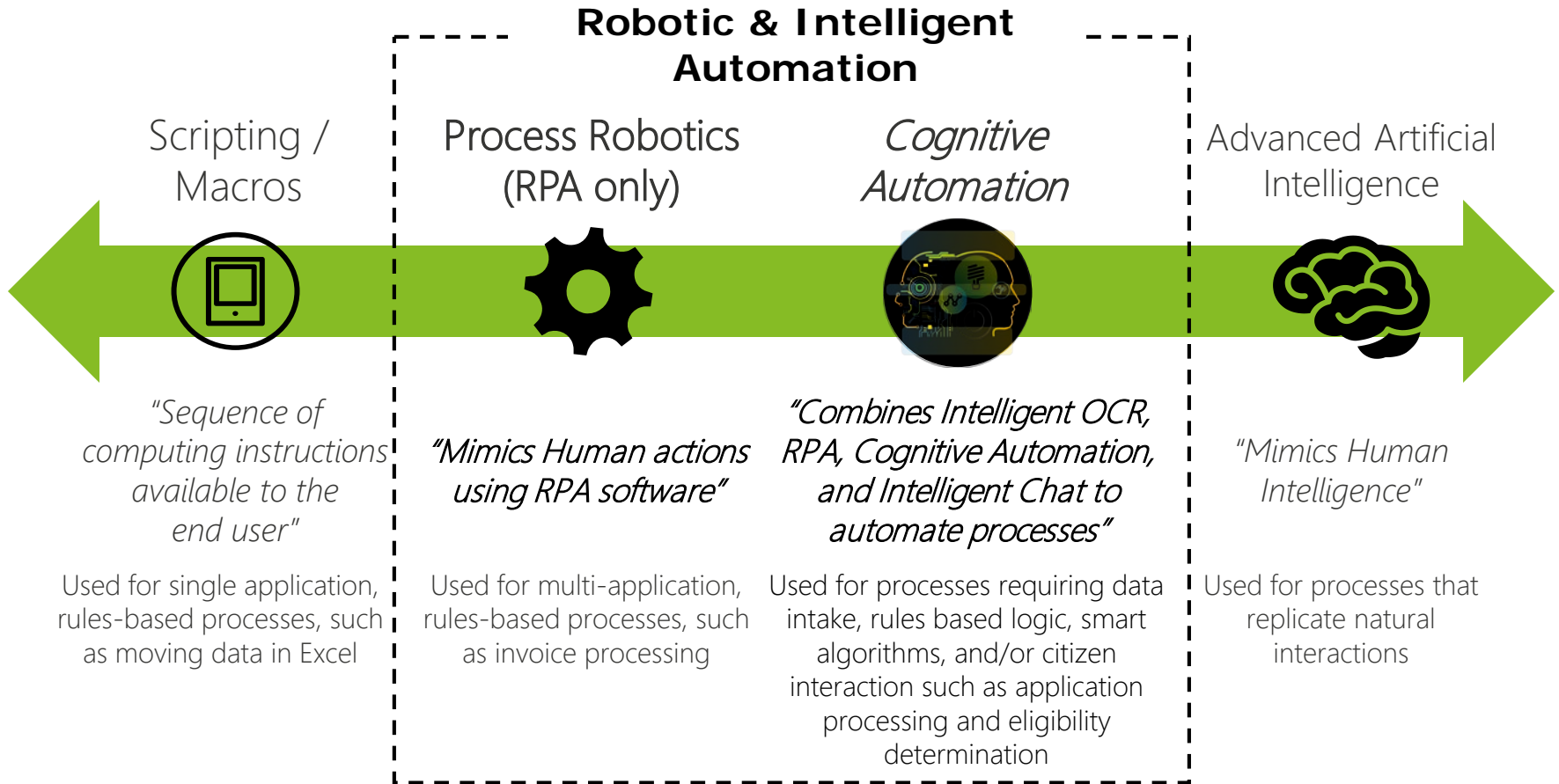
The workforce of today has three primary personas doing all transactional/administrative work along with mission driven work



# R&IA add a fourth 'Digital Personal' to the 'Total Workforce' of tomorrow



# Robotic & Intelligent Automation extends Process Robotics to include Intelligent Optical Character Recognition and Intelligent Automation



*Robotic & Intelligent Automation (R&IA) moves the Public Sector further along the AI spectrum*

# Robotic & Intelligent Automation (R&IA) is delivered through software that can be trained to undertake rules-based tasks

## Intelligent OCR

- ✓ Use of Machine Learning, NLP, and OCR engines to perform content classification and advanced extraction
- ✓ Verification of extracted data via connection to external services
- ✗ Adobe PDF reader
- ✗ Simple rules-based text conversion

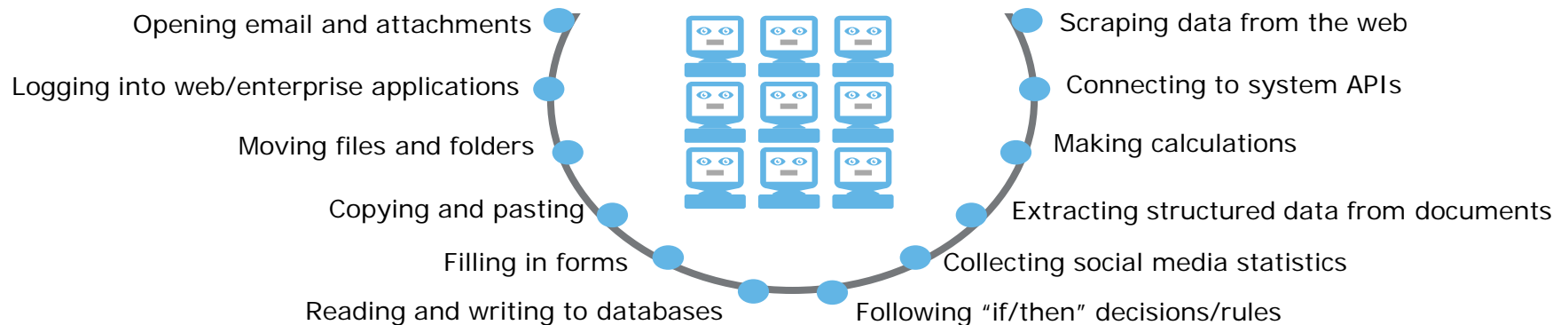
## RPA

- ✓ Software
- ✓ Rules-based
- ✓ A tool
- ✗ Physical, walking, talking robots
- ✗ A system or application

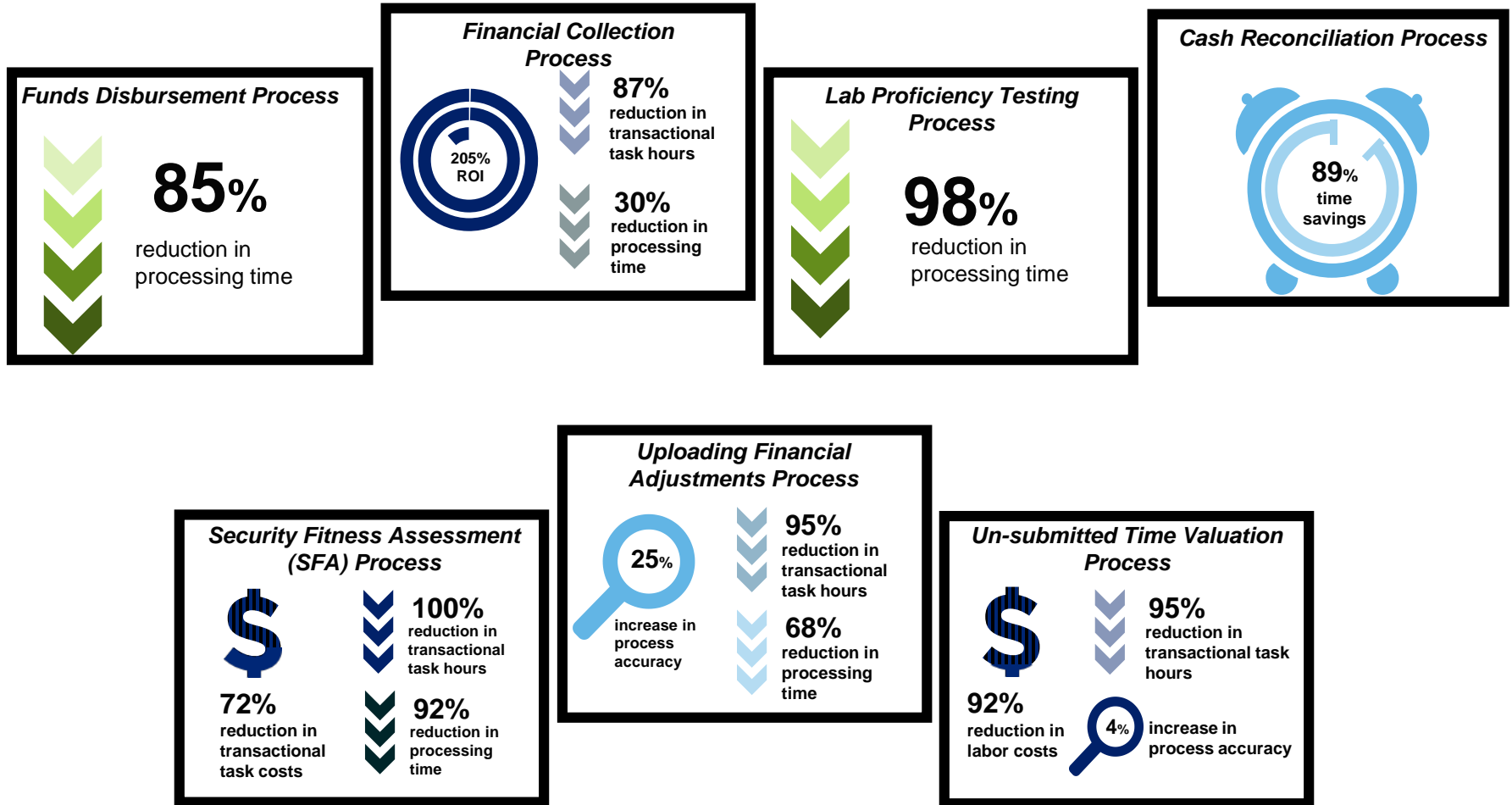
## Intelligent Automation

- ✓ Predictive modeling and machine learning
- ✓ Pattern and image recognition
- ✗ Intended to displace workers from jobs
- ✗ Able to go rogue and act independently

## What it can do



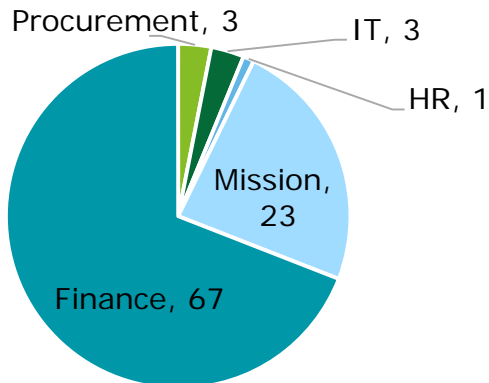
# Robotic & Intelligent Automation has already demonstrated real impacts through various implemented projects throughout Government





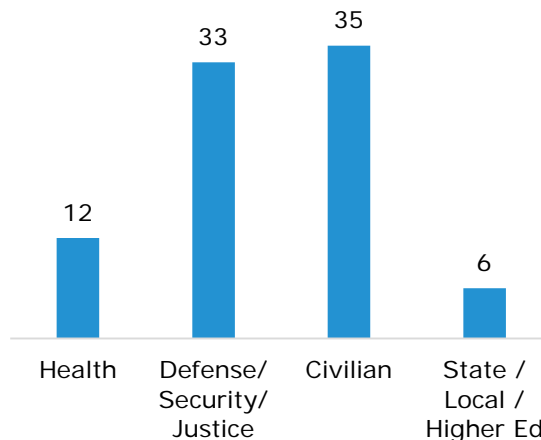
100+ robots are currently being delivered across 36 federal agencies, helping them realize rapid ROI

**Client Bots by Function\*:**

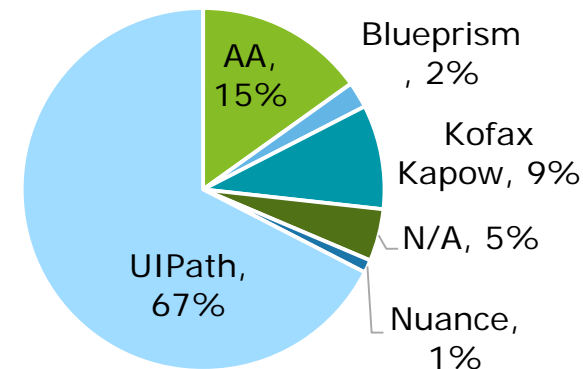


\*Less than total number of bots due to masked or TBD functions

**Client Bots by Account Industry:**



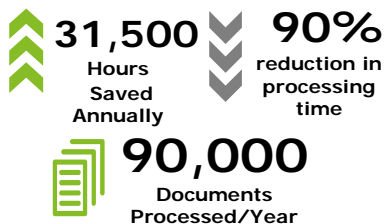
**Client Bots by Vendor Type:**



**Client Highlights**

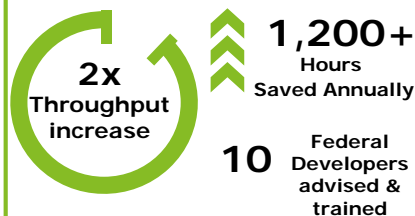
**Scenario 1**

**Document Management**



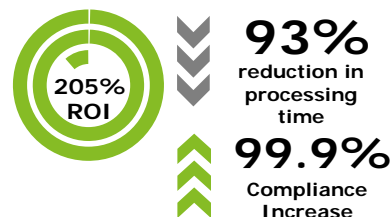
**Scenario 2**

**Reporting & Consulting Processes**



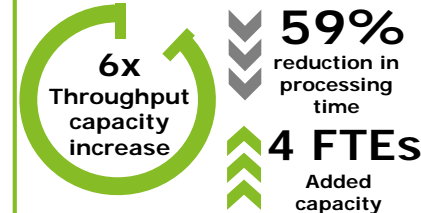
**Scenario 3**

**Supplier Intake**



**Scenario 4**

**Financial and Accounting Processes**



All bots placed in production were completed within 12 weeks



# Process Selection Criteria Used to Identify Processes for Automation

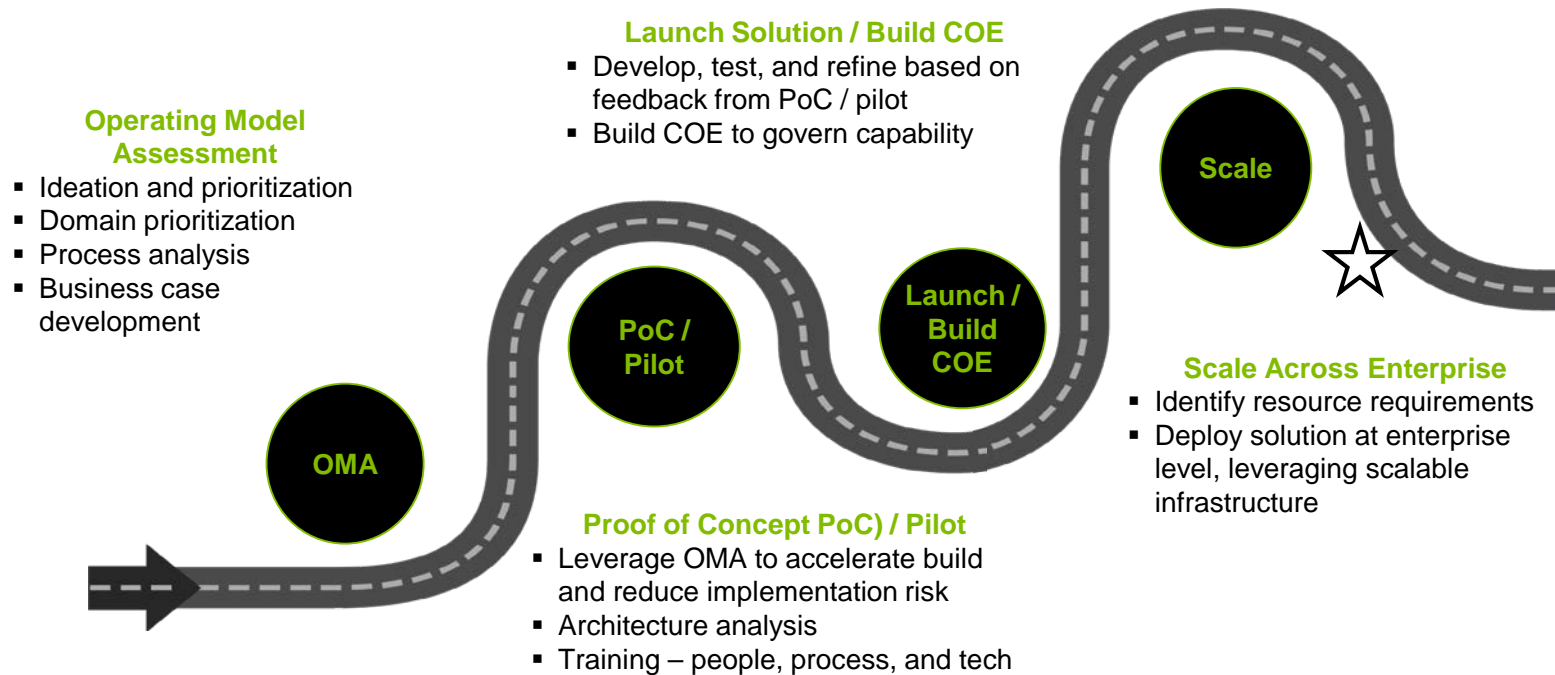
What makes a process a good candidate for Process Robotics?

Criteria	Description	Sub-Criteria
<b>Number of Systems Used</b>	Process should typically require employees to access multiple independent systems to complete the process.	List of Systems Used Ease of Access / Integration
<b>Transaction Volume</b>	Process need not necessarily be limited to high-value transactional processes. Any process that is labor intensive, time-consuming, or has high-cost impact errors qualifies.	Annual Volume Subject to Seasonality
<b>Prone to Errors or Re-Work</b>	Manual activities in the process today result in errors due to human operator mistakes (e.g. complexity of work or infrequency of activity).	Error Frequency Error Impact
<b>Process Predictability</b>	Process needs to be defined in terms of a set of unambiguous business rules.	Size of Decision Trees Business Logic Complexity Business Rule Documentation
<b>Rules Based Exception Handling</b>	Simpler processes with little exceptions in delivery are excellent candidates in the beginning. With experience, there is potential to expand to processes that are more complex or error prone.	Number of Exceptions Business Rules for Exceptions
<b>Manual Work Involved</b>	Process should have little automation support today and large amounts of manual work.	Number of Keystrokes Number of FTEs
<b>System Upgrade Timing</b>	Process should be avoided if it interacts with a system scheduled for a major planned upgrade within 6 months. Major upgrades beyond minor enhancements need to be planned for in order to prevent rework.	Date of Upgrade System Importance to Workflow Enhancement Scope
<b>Controls Importance</b>	Process that is high-risk or has sensitive data that requires strong oversight and set of internal controls.	Process Risk Levels Audit Data Requirements Regulatory Demands

*Prompt: For what specific task(s) or subtask(s) in the **contracting process** could Process Robotics be employed?*

A deliberate path starts with an assessment followed by a pilot project, and sets the stage for enterprise scalability

## The Process Robotics Roadmap...



# Organizations expanding their automation programs today can learn from a number of common pitfalls that early adopters experienced when deploying RPA at scale

## We have generally observed...



Tactical, quick win RPA implementations are taking precedence over a cohesive, end-to-end strategy that considers change management implications



Organizations taking a de-centralized approach to RPA, testing the capability across multiple functions with uncoordinated initiatives



Organizations focused on demonstrating cost reduction – de-emphasizing broader value propositions of RPA and complementary technologies



Organizations taking a 'try before you buy' approach, testing various vendors in silos before considering Enterprise solutions, limiting the potential for scale



RPA is used to fix broken processes, which increases both complexity, operational and control risk, and increases effort required to automate processes



RPA projects are often conducted in isolation with little consultation with other parts of the business

## However, in planning, the best organizations...



**Define an up-front strategy** including an Enterprise Operating Model, Delivery Methodology, Business Case, Change Management Strategy, and Roadmap



**Establish a centralized capability**, embedding RPA into existing Digitization & Automation programs and initiatives



**View RPA as one component of the *Virtual Workforce*** that can transform the way humans and technology interact, for both employees and customers



**Select one vendor and define an Enterprise Architecture** solution and set of standards that can be replicated and scaled across functional groups



**Stabilize and make processes as efficient as possible** before implementing automation to maximize value and reduce time and effort to implement

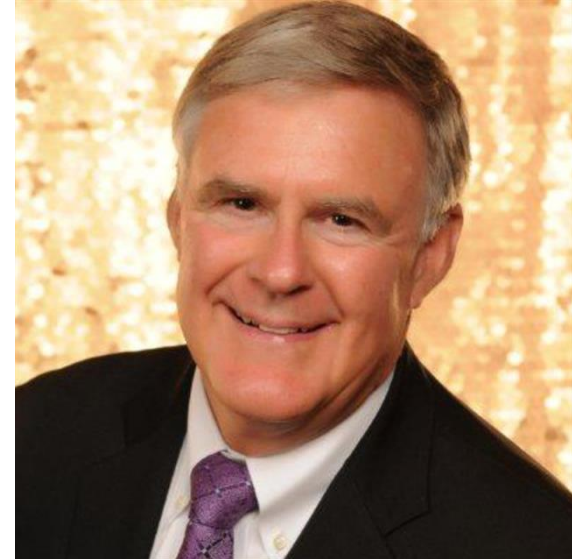


**Engage stakeholders from the program's outset** to ensure effective buy-in and adoption and align the RPA program with other investments and organizational priorities

## Process Robotics Presenters



***Rick Skigen***  
*Robotics Manager*  
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*Robotics Specialist Leader*  
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