

Robotic Process Automation (RPA)

Speaker : Mukesh Kala, UiPath MVP

Agenda

- What is RPA
- What Robots can Do
- Benefits of RPA
- RPA Across Industries
- UiPath Business Automation Platform
- RPA with AI

What is RPA

- **Robotic Process Automation (RPA)** refers to software technology that allows for the automation of routine, repetitive tasks that are usually performed by humans.
- RPA tools use artificial intelligence and machine learning algorithms to mimic human actions such as clicking buttons, entering data, and navigating applications.
- The goal of RPA is to increase efficiency, accuracy, and speed of business processes by reducing the workload on human employees and minimizing the risk of errors. This technology is widely used in industries such as finance, healthcare, customer service, and human resources.
- RPA, or Robotic Process Automation, refers to software tools that automate routine and repetitive tasks by imitating human actions, such as clicking buttons and typing text.



What is RPA

RPA is the technology that enables a software program to mimic human actions while interacting with computer applications to accomplish required tasks. Some human interactions that can be automated are:



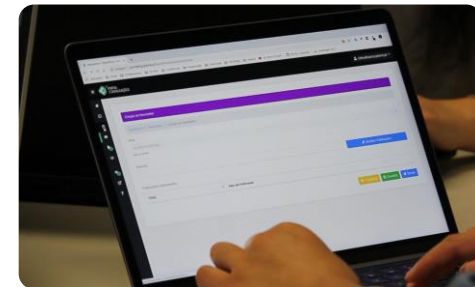
Keyboard inputs



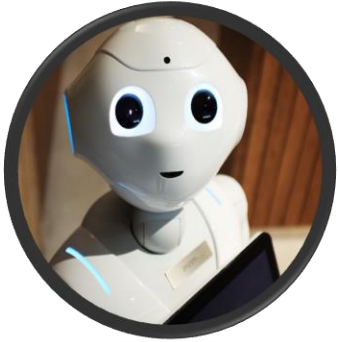
Mouse movements / clicks



Reading computer screen



What RPA is Not ?



Walking and Talking Robots or Humanoid



Warehouse Robots



Human Replacements

What Robots can Do ?



Log in to any application



Connect to system APIs



Move files and folders



Extract content from documents,
PDFs, emails and forms



Read and write to databases



Open emails and attachments



Scrape data from the web



Make calculations



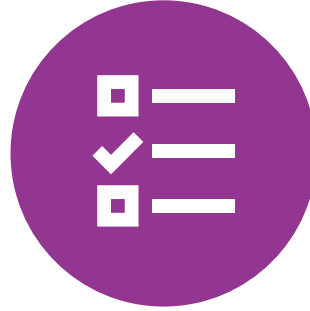
Benefits of RPA



Increased Execution
Speed



Enhanced
Accuracy



Improved Regulatory
Compliance



Reduced Cost of
Process Execution



Easier Scaling

RPA across Industries



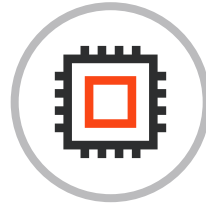
Supply Chain

- Inventory management
- Invoice & contract management



Client Services

- Address change
- Scheduling appointments



IT

- Server & app monitoring
- Routine maintenance & monitoring



Accounting

- Accounts/Reports Reconciliation
- Account Creation & Update



HR

- Payroll
- Onboarding & offboarding



Operations

- Order Creation & Update
- Work Order Request

RPA in Utilities

- **Billing and Invoicing:** Automating manual tasks related to billing and invoicing, such as data entry, reconciliation, and report generation.
- **Meter Reading:** Automating the process of collecting, processing and updating meter reading data.
- **Customer Service:** Automating routine customer service tasks, such as account creation and information updates.
- **Data Management:** Automating tasks related to data management, such as data validation, entry and reconciliation.
- **Supply Chain Management:** Automating tasks related to procurement, inventory management and supplier management.
- **Workforce Management:** Automating tasks related to employee management, such as time and attendance tracking and scheduling.
- **Regulatory Compliance:** Automating compliance-related tasks, such as reporting and audits.

The UiPath Business Automation Platform

Discover

Continuously uncover opportunities for process and task improvements helping you identify the highest ROI areas



Your
Processes

PROCESS MINING

TASK MINING

COMMUNICATIONS MINING

IDEA CAPTURE & MANAGEMENT

Automate

Get more done with a digital workforce that seamlessly collaborates with your people and automates work via UI and API, powered with native integrated AI



Your
Applications

LOW-CODE DEVELOPMENT

UI & API AUTOMATION

PROCESS ORCHESTRATION

INTELLIGENT
DOCUMENT PROCESSING

INTEGRATED NLP & AI/ML

Operate

An enterprise-grade foundation to run and optimize a mission critical automation program at high scale



Your
People

ANALYTICS

CONTINUOUS TESTING

UNIFIED MANAGEMENT
& GOVERNANCE

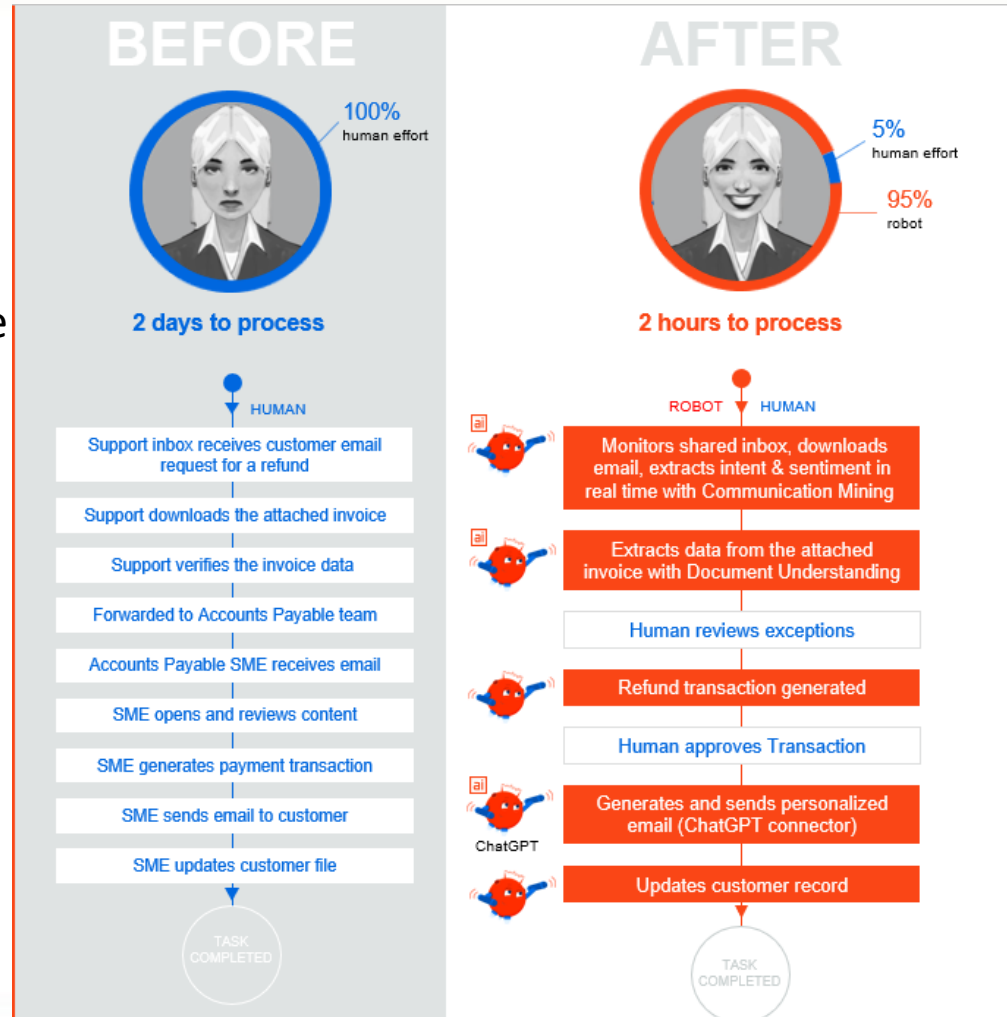
FLEXIBLE DEPLOYMENT

Example

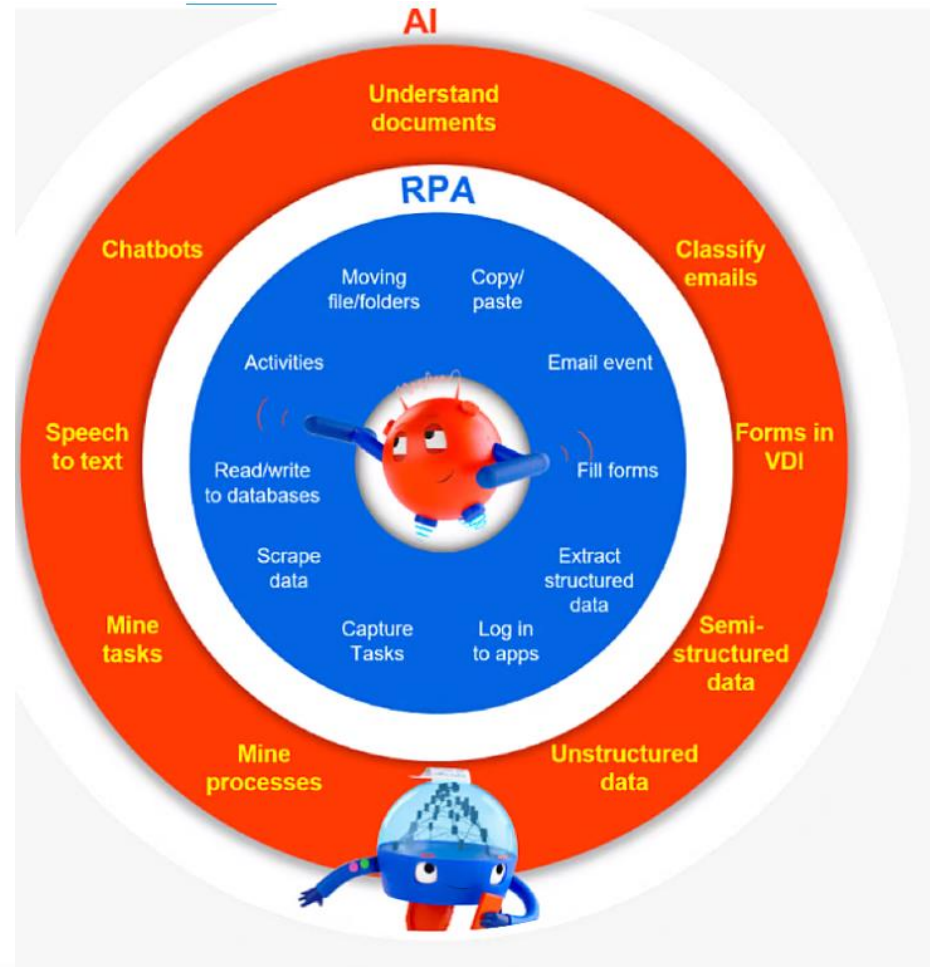
Customer type: eCommerce

Technology Utilized: Communications Mining, Document Understanding, ChatGPT/Generative AI and UiPath Robots

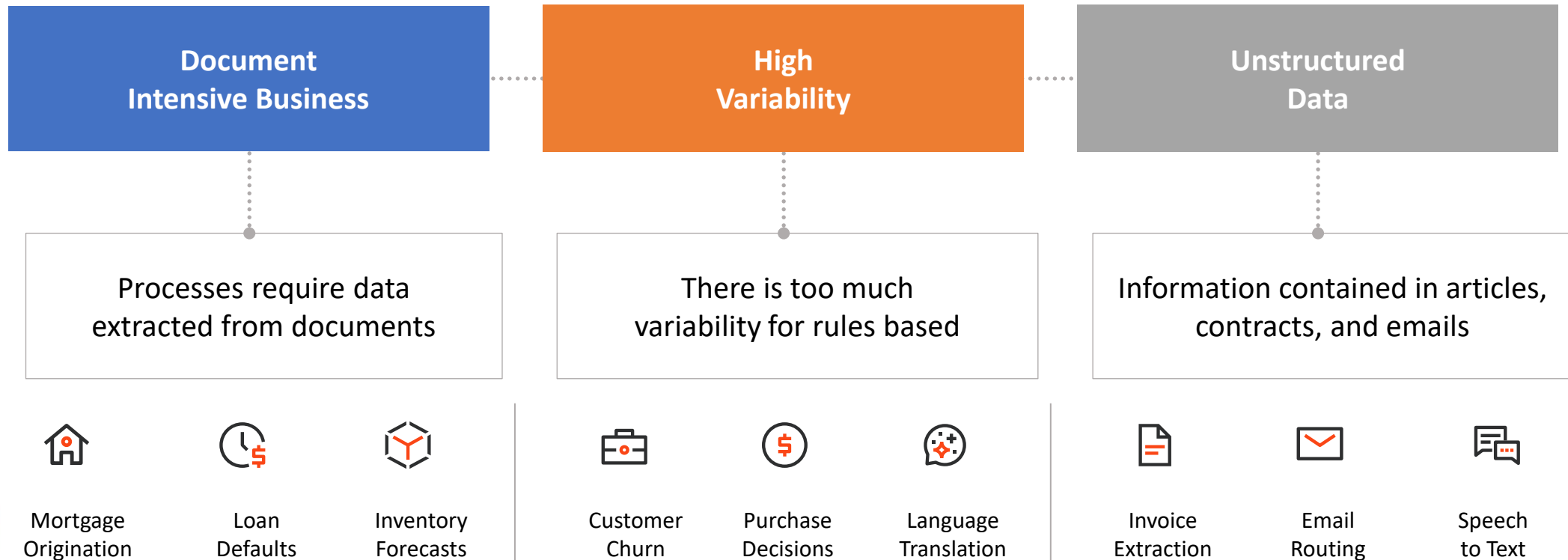
Used AI Models: Communications Mining LLM, OOB Invoice Model, ChatGPT for customized email generation



RPA and AI



Why AI ?



Document Varieties

- ✓ Articles of formation
- ✓ Attorney general letters
- ✓ Automotive & dealer invoices
- ✓ Bank statements
- ✓ Bill of lading
- ✓ Business checks
- ✓ Capital calls
- ✓ Certificate of good standing
- ✓ Credit default swaps

- ✓ DMV forms
- ✓ Invoices
- ✓ IRS forms –
W2, W9, 941, 944, W9, 1120, 1120-S
- ✓ IRS schedules C, E, F
- ✓ IRS transcripts
- ✓ Legal contracts
- ✓ Letters of explanation
- ✓ Mailing envelopes
- ✓ OTC medical receipts



- ✓ Packing slips
- ✓ Passports & passport cards –
US & international
- ✓ Pay stubs
- ✓ Purchase orders
- ✓ Receipts
- ✓ Shipping invoices
- ✓ States issued IDs
- ✓ Utility bills –
US & International

Document Understanding (Generic)	Build a model from scratch for any document type.				
Invoice (Languages)	Generic	Transportation	Delivery Notes	Insurance	ACORD25
	India		Packing Lists		ACORD125
	Australia		Vehicle Title		ACORD126
	China	Banking	Bank Statements		ACORD131
	Japan		Financial Statements		ACORD140
Billing	Purchase Orders	Tax	Checks	Complementary Models	Document Classifier
	Receipts		FM1003		Document Splitter
	Utility Bills		1040		Named Entity Recognition
	Remittance Advice	I9	Multilingual Text Classifier		
Personal ID	Passports		4506-T		
	ID Cards		990	Image Classifier	

Use Cases



CASE STUDY

Automation fuels ambition for SOCAR Turkey

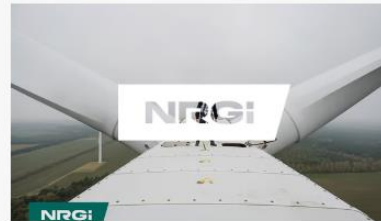
Since 2019, the business has automated 58 processes with its five digital colleagues, saving 30,000 staff hours, reducing errors, and minimizing bottlenecks and waiting times.



CASE STUDY

Vertiv improves efficiency and accuracy with UiPath automation platform

Vertiv, a global provider of critical digital infrastructure and continuity solutions, enhanced its operational efficiency and reduced costs with automation.



CASE STUDY

How UiPath helped NRGi turn billing into a competitive differentiator

Learn how automation was crucial to NRGi's success by reducing unnecessary activities and eliminating as many tasks as possible.



CASE STUDY

Getting the RPA foundations right leads to quick results—and customer benefits

Learn how management at Water Plus adopted RPA to help agents achieve more in their roles, and how people adapted to software robots as a result.



CASE STUDY

Ignitis Group Reduces Opex and Improves Customer Service with RPA

See how Ignitis Group drives cost and operational efficiencies with process automation by focusing on delivering value for money and innovation to customers.



CASE STUDY

Transforming efficiency experiments into enterprise fit automation at Bristol Water

Read Bristol Water use of robotic process automation (RPA), from experimental beginnings to enterprise-wide implementation.

<https://www.uipath.com/resources/automation-case-studies?filterResources=&Industries=Energy-and-Utilities>



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India Smart Utility Week (ISUW)



CLIENT: UIPATH

UiPath Uses Its Own Technology to Streamline Operations and Enhance Employee Work Life

2,800	\$43,000	98%	15%	23%
Hours saved in invoice processing	Saved in invoice processing	Reduction in AIT requests spent on common IT request resolution	Of IT requests resolved automatically	Of employees adoption mentoring solution

CLIENT OVERVIEW

UiPath has a vision to deliver the fully Automated Enterprise™, an enterprise-wide automation to unlock their greatest potential. UiPath offers an end-to-end platform for automation, combining the leading Robotic Process Automation (RPA) solution with a full suite of capabilities that enable every organization to rapidly scale digital business operations.

Leveraging AI-enabled automations to discover business processes, speed invoice processing, optimize IT help desk services, and boost employee learning and recognition.

As the market leader in robotic process automation (RPA), UiPath helps thousands of enterprise customers globally improve operations and cut costs with RPA enterprise automation powered by artificial intelligence (AI). These companies are not the only beneficiaries of our technologies. The UiPath leadership team strongly advocates using its own products and solutions and those from UiPath partners to improve operational efficiencies, cut costs, and make UiPath a great place to work.



CLIENT: LG CHEM

AI Cases Applied to LG Chem's OCR


350	14,000	70%+
tasks automated since 2019	total hours saved	processing time reduced

CLIENT OVERVIEW

LG Chem has a business portfolio consisting of petrochemicals, advanced materials, life sciences, and subsidiaries specializing in batteries and others and aims to become one of the top five chemical companies in the world. The Digital Transformation (DX) of the company is leading the analysis and

LG Chem's battery business unit (prior to its spinoff) maintained a business process where its trading partners had to upload reports prepared by their contractors after calibration of their test equipment. The unit used UiPath Document Understanding.

Robotic process automation (RPA) has been extensively used for automating repetitive work, and when coupled with artificial intelligence can transform a wider range of business processes. LG Chem started deployment of RPA in 2019. Initially, RPA was used to automate, and



INDUSTRY: RETAIL REGION: NORTH AMERICA CLIENT: MAJOR RETAILER AND ACCELERATE

AI-enhanced Robots Process 93% of Invoices Automatically for a Major Members-only Retailer

7,000	30	160+	95%
Invoices processed monthly	seconds now spent on processing an invoice that used to take 3-5 minutes	hours saved monthly	confidence score for invoice processing with ML model

CLIENT OVERVIEW

Accelerate's mission is to help companies accelerate automation within their business processes using robotic process automation (RPA), Application Programming Interface (API) integration, and AI Technologies such as machine learning (ML) and natural language

RPA consultant Accelerate implements UiPath Document Understanding to help automate invoice processing for a major retailer and helps the employees focus on more important tasks.

The accounts payable (AP) process plays a vital role in any company's finances, so efficiency is critical. Many AP teams in large organizations, however, know the reality of trying to manage hundreds or even thousands of invoices every month.



CLIENT: THERMO FISHER SCIENTIFIC

Thermo Fisher Scientific Cuts Invoice Processing Time by 70% for 824,000 Documents Processed Annually


824,000	70%	85%	53%
Invoices processed annually	reduction in time needed to process invoices	accuracy in automated data collection	straight-through processing

CLIENT OVERVIEW

Thermo Fisher Scientific is a global provider of scientific instruments, laboratory and pharmaceutical equipment and supplies, patient diagnostic services, and related software products. The Fortune 500 company operates through several subsidiary brands, including Thermo Scientific, Fisher Scientific,

Founded over 70 years ago, Thermo Fisher Scientific has grown to become a major global enterprise. It has more than 90,000 employees in various business units serving customers in 50 countries.

The company's Smart Automation Global Business Services (SAGBS) unit works from locations in Prague, Hungary and Costa Rica, providing support to EMEA and North America to purchase-to-pay (P2P), record-to-report (R2R) order-to-cash (O2C), HR, procurement, and customer care operations.



CLIENT: HERITAGE BANK INDUSTRY: BANKING AND FINANCE REGION: ASIA PACIFIC & JAPAN

Heritage Bank: Driving Automation With RPA and AI


98%	90%	80
The accuracy of Heritage's most recent machine learning model, built by UiPath, and deployed on AI Center	The level of process automation that Heritage will attain when completing living expense reports	Total processes that have been automated since 2017

CLIENT OVERVIEW

Heritage Bank is Australia's largest mutual bank, with 80 branches. The company provides at retail financial products, including home loans through its branch network and through a network of mortgage brokers across every state and territory in Australia.

The customer-owned company is also one of Australia's longest-standing financial institutions. Founded in 1875, Heritage has witnessed countless waves of technological change throughout its long history—from typewriters to the internet and everything in between.

In recent years, however, the company has faced a brand-new challenge: digitalization.



CLIENT: SHINSHU UNIVERSITY HOSPITAL

Shinshu University Hospital Standardized Accounting Decisions with UiPath AI Center

4,559	66%	123
Number of hours saved in the first two years	Less cost to start compared to other AI solutions	Number of hours to create AI for accounting

CLIENT OVERVIEW

Shinshu University Hospital is based in Nagano Prefecture, Japan. It offers advanced medical treatment with great transparency and compassion to provide the best possible treatment. By training the next generation of medical staff to

At Shinshu University Hospital, the RPA Promotion Office has found a way to standardize accounting data



CLIENT: SWECO REGION: EUROPE INDUSTRY: MANUFACTURING

Sweco goes from finance automation to robo-botanists in just two years

150,000	150	400
hours saved in 2.5 years	processes automated	manual tasks retired

CLIENT OVERVIEW

For more than 130 years, Sweco has been transforming society in partnership with its clients. Today, it's Europe's leading architecture and engineering consultancy, employing 18,500 people working on projects that span infrastructure, the built environment, and utilities.

When David Hunter, head of artificial intelligence (AI) and automation at Sweco, joined the business in February 2020, he could see the potential of robotic process automation (RPA) was huge but the challenge would be to implement on a green field. "The business was conducting 100,000 a year, with opportunity for using enhancing automation technology in all of the projects."

As a knowledge business undertaking thousands of projects a year, it



CLIENT: COGNIZANT INDUSTRY: BANKING AND FINANCE REGION: NORTH AMERICA

How Healthcare Organizations Unlock Productivity by Processing Semi-Structured Documents with UiPath Document Understanding and AI Center

2-4 weeks	40%	70%	20%
From first customer to production with expected confidence levels	Reduction in time with GPU for training	Of the scanned documents are semi-structured	Of the documents are structured

CLIENT OVERVIEW

Cognizant is one of the world's leading professional services companies, transforming client business, operations,

UiPath and Cognizant helped leading healthcare clients automate purchase order processing and related documents with AI, saving time, improving accuracy, and reducing risks.



INDUSTRY: BANKING AND FINANCE REGION: EUROPE CLIENT: EVROS TECHNOLOGY GROUP

Evros Technology Group Uses UiPath AI Products to Save Up to 80% of Time Processing Purchase Invoices

21,000	80%	6-8 weeks	80%
Invoices per year	Improvement on time saving	Retaining to increase accuracy from 80% to 90%	Accuracy still improving over time

CLIENT OVERVIEW

Evros Technology Group is Ireland's leading provider of IT managed services and systems integration.

Evros Technology Group has been delivering design, supply, implementation, and IT infrastructure support services to clients for 30 years. Its offerings include managed IT services, cloud solutions, IT outsourcing, networking and security, technology recruitment, business continuity, and procurement solutions.

Irish IT services company looks to UiPath to gain greater efficiencies in financial operations with UiPath Document Understanding and AI Center.



CLIENT: APPRIOHEALTH INDUSTRY: HEALTHCARE REGION: NORTH AMERICA

ApprioHealth Streamlines Time-to-Payment for Healthcare Providers Using RPA and AI Computer Vision

7X	20X	96%
Increases in volume of claims managed	Increases in volume of claims touched	Reduction of claims backlog

CLIENT OVERVIEW

Apprio Inc. provides specialized technology solutions for Defense, Homeland Security, and Federal Healthcare clients. As a subsidiary ApprioHealth helps hospitals, clinics, and healthcare providers deal with the growing number of digital forms and databases that are part of today's healthcare infrastructure. One of

The healthcare industry is notorious for requiring mountains of forms and data entry. With help from AI Computer Vision, ApprioHealth helps its customers process a higher volume of information accurately and efficiently, resulting in improved financial and operating performance.

Thank You

For discussions/suggestions/queries email: isuw@isuw.in

www.isuw.in

Links/References (If any)