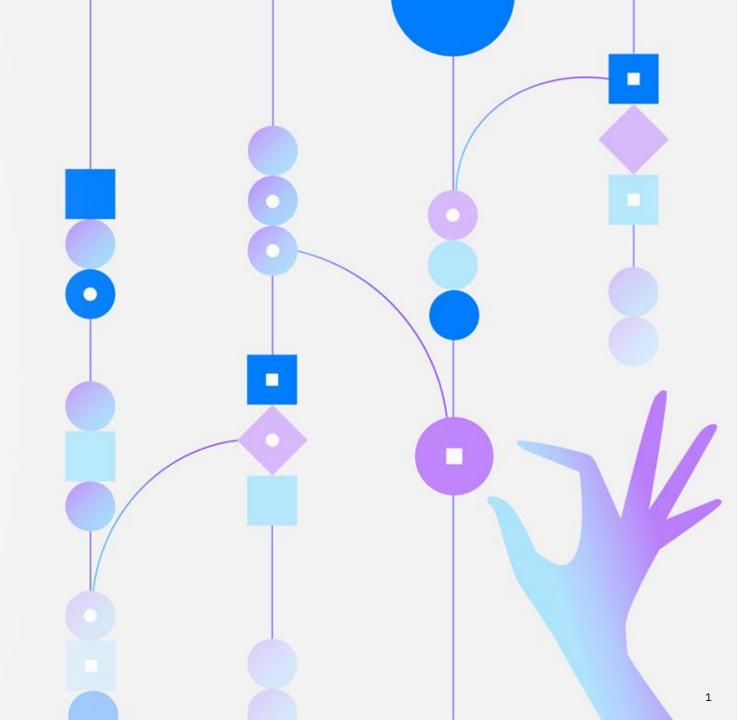


# AI Powered Document Workflows

Extract. Act. Automate

IBM Consulting, July 2025



Document-heavy processes are at the core of every business function, across industries. From invoices to contracts, claims to onboarding forms, document processing is critical but often inefficient.

## **Business Need and Opportunity**

80% of enterprise data is unstructured — primarily documents

\$1–3 trillion
Manual document
processing cost to
businesses annually in
inefficiencies

(Source: Gartner)

(Source: IDC)

# Only ~70% accuracy

of Existing AI tools, require rigid templates, high technical involvement, leading to manual corrections

(Source: Forrester)

# **The Opportunity with Agentic AI**

### Self-Serve AI

- Business users define what to extract and how to process in natural language
- Faster Time-To-Value
  No coding, no templates configure and scale across processes

# Up to 70% cost savings and 4x faster processing

Reach 100% accurate extraction and > 90% straight through processing. Agents learn and adapt over time with human feedback

## Cost savings and increase revenue

Remove certain manual processes altogether. Accurate AI enabled auditing reduces revenue leakage and faster processing

# Document Processing is central to several business functions in almost every industry

### Banking and Finance

Loan applications, KYC, financial statements, Trade finance document processing Regulatory filings

### Insurance

Claims processing, Underwriting, Policy issuance, Compliance reviews

### Legal and Compliance

Contract analysis, NDAs, Compliance documentation, Due diligence



### Healthcare Lifesciences

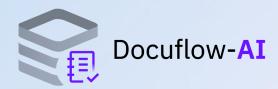
Patient intake,
Medical coding, Claims, prescriptions, billing
Pharmacovigilance
Prior Authorization

### Manufacturing and Supply Chain

Purchase orders, Invoices Shipping documents, Quality reports

### **Cross Industry**

HR onboarding, Vendor onboarding, Expense processing, Product onboarding



# Docuflow-AI: Reinvent Document processing using Agentic AI

Extract. Tune. Act. Automate. — Using Natural Language

### **App Overview**

**Docuflow-AI** is Agentic-AI Powered general purpose document processing workflow solution.

- Empower business SME to define workflows using natural language.
  - Data Extraction
  - o Validations / calculations
  - Actions
- Build workflows for different business function (invoices, contracts, statements, etc.) from same solution.
- Integrate with other systems / solutions

### **Use Cases**

Invoice to Pay Energy Trading

Contract Analysis 2-3-4 way match

Due Diligence KYC

### Capability highlights



### **Intuitive, Accurate, Complete**

Business users can setup, validate and tune complex extraction and action workflows. Workflows also learn from user feedback (advanced tuning included).



### **Scale And Integrate**

Apply to various use cases. Utilize the app UI or integrate the workflows as pipelines to power other business applications



### **Chat with Data**

Chat at document level or extracted database level for complex analysis using natural language.



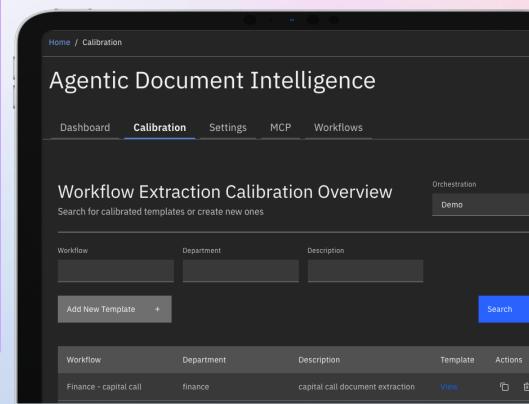
### Agents to act

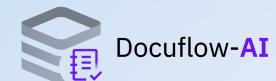
Simple to complex actions enabled by agents and tools connection via MCP

### Benefits & Value

Up to 100% Extraction accuracy at document level
>40% Reduction in processing cost and time

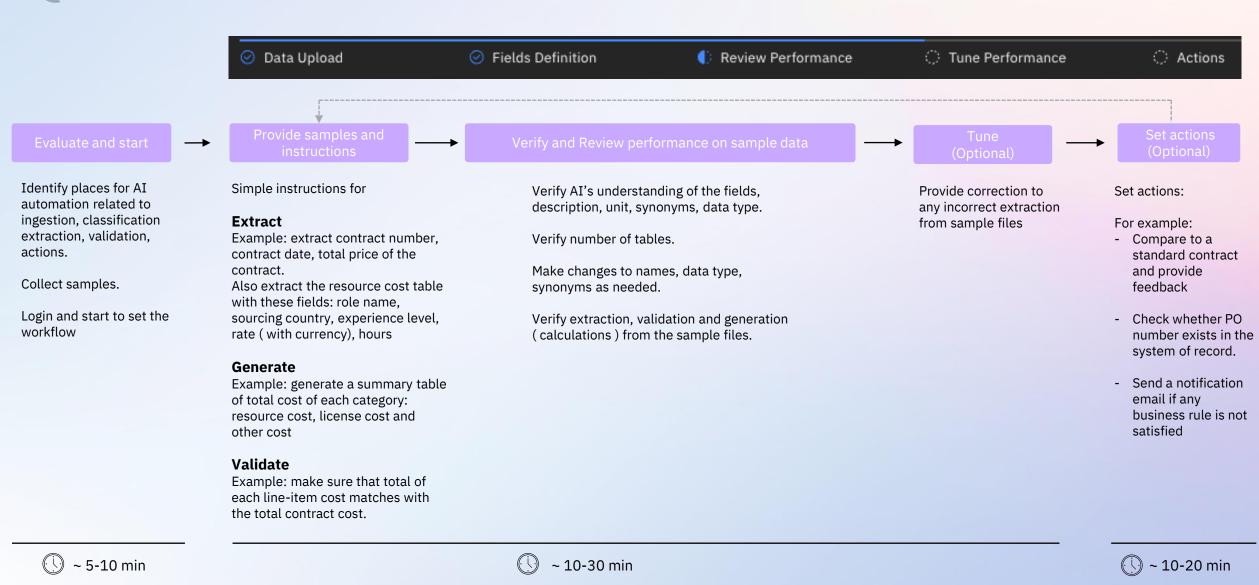
Revenue Leakage

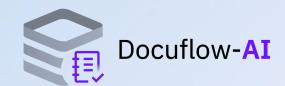




# Setup (calibration) flow



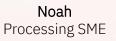


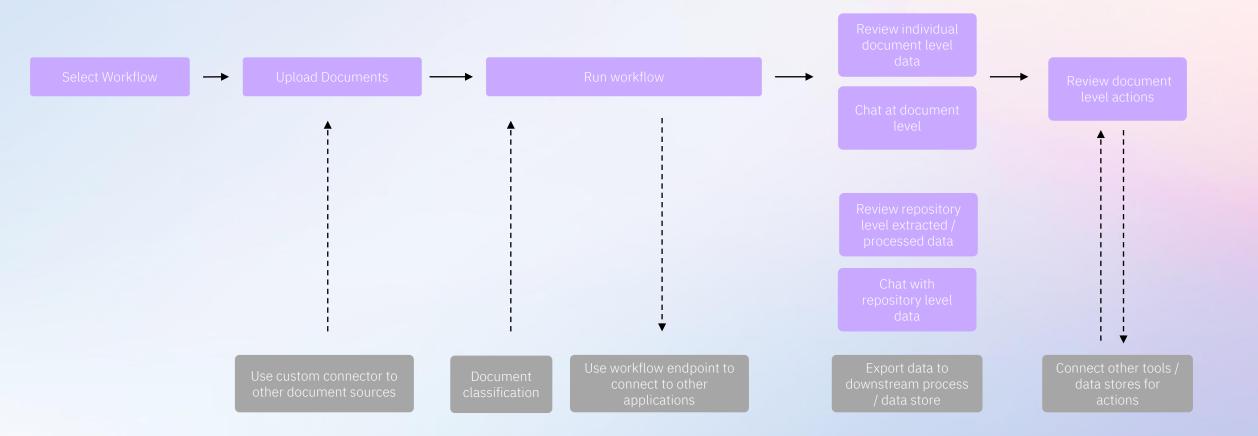


# Operational use of Workflow









### Features and Innovations



Supercharge setup and use with Agentic AI

## (Extract – Validate > Act)

Fron understanding user intent, to defining validation rules and performing actions, agents and advanced orchestration make the complex job easy and accurate.



# Accuracy and Completeness

Utilizing latest research, models and innovative techniques to

- > Mistral OCR for reading text
- > Segregation of task for agents
- > LLM as judge for reflection



# Tuning based on user feedback

Advanced Reinforcement Learning with Human Feedback loops for advance prompt tuning to improve accuracy over time with human feedback



### Code Models

Utilizes code models to perform data transformation and calculations for the "Generate" feature. Makes it more accurate compared to directly utilizing LLM call for data transformation



# **Confidence Score**

Advanced and more realistic Confidence Score estimate for field extraction which is more accurate compared to a more conservative out of the box LLM provided confidence score.



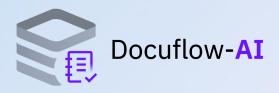
# Chat with document and Database

Chat with data at document level and also at extracted database level. Ability to query using natural language to generate insights at repository level for all extracted data.



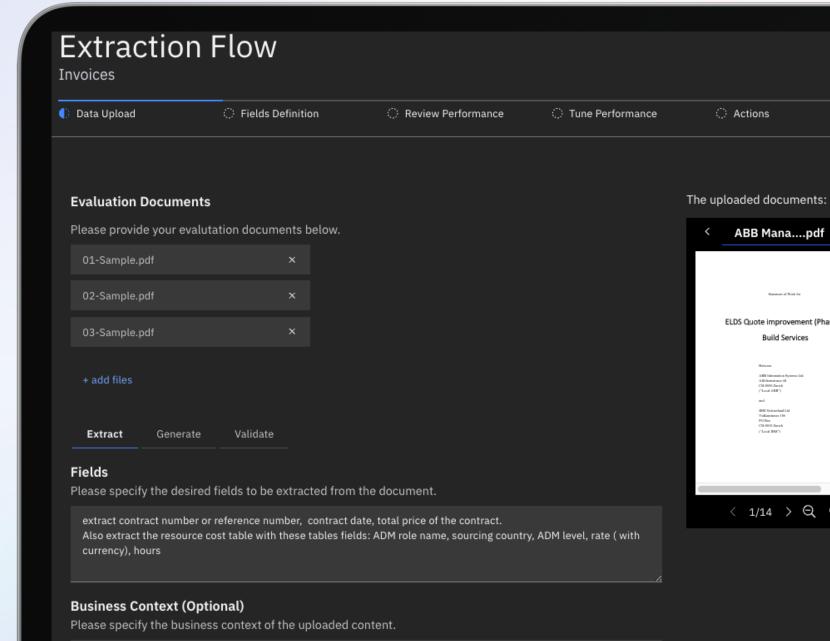
## MCP integration

Take the agentic actions to next level using the advance MCP server integration to connect variety of tools such as email notification, API connections etc.



### Configuration (advanced SME persona)

- Upload samples
- Document preview
- Define Document Type and context
- Define Workflow
  - Fields for Extraction
  - Data Generation
  - Output Format Required
  - Validations
  - Action (FR)
- Run the configured AI engine
- Evaluate Performance of the AI engine
- Tuning for extraction improvement
- Submit the AI Engine

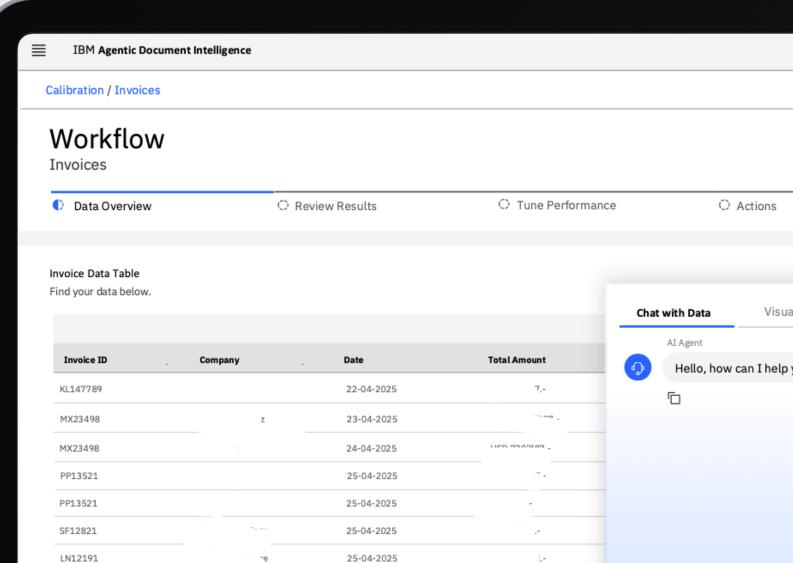


these are contracts between IBM and client for technical resources



### Workflow use (Consumer persona)

- Document Upload (bulk or individual)
- Manage and workflows
- View data at repository level and at document level
- Chat with data at database level or at document level
- Manually provide correction if needed.
   Also used for prompt tuning to improve next set of document processing



25-04-2025

25-04-2025

25-04-2025

25-04-2025

).-

1.-

DD22110

XX22131

LL12821

BB42031

# **Indicative Delivery Timeline**

1 to 3 weeks

Assessment Blueprint Build

- Confirm Sponsoring Organization, Key Users Mapping
- Baseline business processes for transformation
- Identify Strategic & Ops KPIs against specific goals
- Identification of associated AI Risks and their impact on the use case
- Define key customization aspects, upstream and downstream integrations, any specific functional agents, any UI customization or UI/UX integrations.
- Define deployment plan and number of environments (dev, test, production)
- Structure and plan a 8week MVP for the prioritized features.
- Define test plan for 2-3 document types

#### Setup Sprint

- Deploy the Agentic App.
- Get access to data sources
- Gather initial data set
- Set and test with sample data

Sprint

- Build, Test & Playback MVP: implement the business process and validate through weekly playbacks with business users
- Create and integrate required Data Products
- Test out core capabilities
- Test with MVP data set

### Dev Dev Test Sprint

- Train users on agentic app and required governance knowledge, refine AI Assistant-human collaboration, and start KPI tracking
- Prepare production deployment

#### Prepare for Scale

 Structure engagement plan for scale

### **Delivery Squad**

- 8 Delivery Executive
- 8 Agentic AI technical Lead
- 8 Technical Architect
- UX Designer
- 8 Data Scientist
- & AI Engineer
- & Full Stack Developer

- & DevOps
- 8 Test Specialist

### Assumptions and Dependencies

- Setup and onboarding: Environment access prior to project kickoff
  - Asset will be deployed in one development environment and availability zone
  - Azure resources provisioned
  - Required knowledge store finalized

IBM development team onboarded to environment within first week of project

- 2 SME time commitment: SME input needed:
  - Data set knowledge
  - As is process and expected results
  - UI validation

SME feedback within three (3) business days

- Base deployment:
  - Will cover core base features of the app within 8-10 week MVP
  - Following query types will need additional development effort
    - Tool integration like raising ticket in workflow tool like service or any other type of integration with external API
    - Hyper personalization by connecting to user data
    - Queries based structured data sources like data base
    - Complex queries which require custom calculation before responding to user question

### GenAI Assistants, Tools, Assets

- Agentic AI Readiness Score Framework
- ICA Assistant to classify process activities
   Mapping process mining metrics to Agentic AI Readiness Scores.
- ICA Assistant to generate first mapping to agentic architecture
- Agentic app Reference architecture

- Base App deployment code and containers
- GIT Repos
- Documentation and Deployment Guide

# Get in touch and find out more



DocuFlow-AI

Find out more and request a demo in ICA4AA Agentic App Library

Click here



Read more about the technical documentation in our GitHub

**Coming Soon** 



Visit AI Integration Services space on Content+

<u>Click here</u>

# IBM

# Custom Agentic App for an Energy/Utility client

### Problem

Legal Counsels and Compliance officers need to spend great deal of time and effort to study any new contracts to look for:



Lin, Compliance / Legal counsel



Alexis, Procurement Specialist

- key provisions under each clause which are necessary for the organization needs and business function
- information which may be present or hidden in non-standard places in a legal document
- look for compliance with industry and organization standards
- ability to find information on the fly which may be in different places and in different legal language

### **IBM Solution**

Our Custom Agentic App for Contract Management to drive significant productivity

Boost Procurement Efficiencies through Gen AI Enhance compliance,
with a 360 view on
contracts

Surface detailed insights on contract terms and conditions



60-80%

Reduction in time spent reviewing contracts

# **High Consistency**

Reduction in time spent reviewing contracts

70%

Reduction in human error related liabilities

# Empower AI & Intelligent Workflow

In business standards and contract term interpretation

# Working of DocuFlow.AI



## DocuFlow.AI and its features

