



Artificial Intelligence in Finance

*"AI is going to be the key to understanding and solving many of the world's most complex problems." – **Satya Nadella, CEO of Microsoft***



Mr. Sandile Mahlaba
Provincial, Local Government and SITA
Executive : Microsoft South Africa



THE FUTURE OF AGENTS

AI is about to completely change how you use computers

And upend the software industry.

By **Bill Gates** | November 09, 2023

What is 4th Industrial Revolution

The Fourth Industrial Revolution (4IR)

What is the 4th Industrial Revolution

Definition: The fusion of **Physical, Digital, and Biological Systems**, transforming how we **Live, Work, and Govern**. Driven by **AI, Robotics, IoT, Cloud, Blockchain, 5G, Biotechnology, and Quantum Computing**.

4IR is characterized by **Hyper-Connectivity and Convergence** through Cyber-Physical Systems, Intelligence everywhere enabled by **AI and Machine Learning**, **Blurred Boundaries between Physical, Digital, and Biological** worlds, and the exponential Speed and Scale of Innovation Cycles that Accelerate Disruption.

It presents Immense Opportunities: **Smarter Governance and Digital Public Services**, the creation of **New Industries and Jobs** in **AI, Green Technology, and Biotechnology**, and improved outcomes in **Healthcare, Education, Agriculture, and Mobility**, while driving Digital Inclusion through **Skills and Access**

Ultimately, ***4IR is not just about Technology but about Reshaping Economies, Societies, and Human Potential.*** It's demanding that **Nations, Businesses, and Individuals Adapt, Reskill, and Innovate** in order to Thrive.





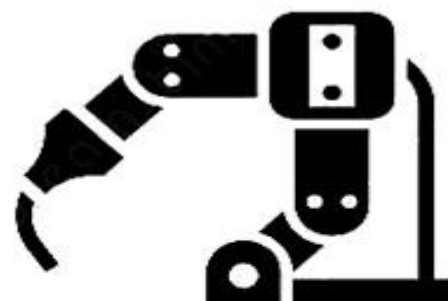
– 18th Century

Industry 1.0
Mechanical production
equipment powered by
steam



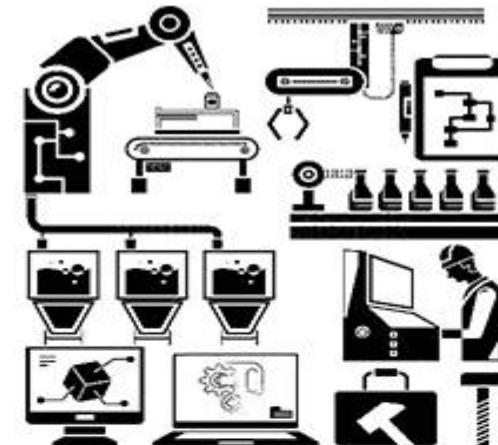
– 19th Century

Industry 2.0
Mass production assembly
lines requiring labour and
electrical energy



– 20th Century

Industry 3.0
Automated production
using electronics and IT



– Today

Industry 4.0
Intelligent production
incorporated with IoT,
cloud technology & big data

History of Eskom – renewable energy (3)

- The Government Gazette of 6 March 1923 announced the establishment of The Electricity Supply Commission (Eskom), effective from 1 March 1923
- The hydro station in the Sabie River came into commercial operation in mid-1927. The Sabie River Gorge hydro station was the first station designed by Eskom engineers
- 1965-1967: Cahora Bassa hydro-electric power station on the Zambezi River, in Mozambique (between South African and Portuguese governments) It was intended to supply electrical power along a 1 400 km route to South Africa – first power transmitted from Cahora Bassa in May 1975



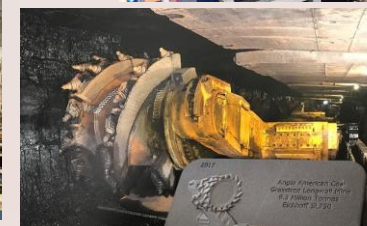



sasol

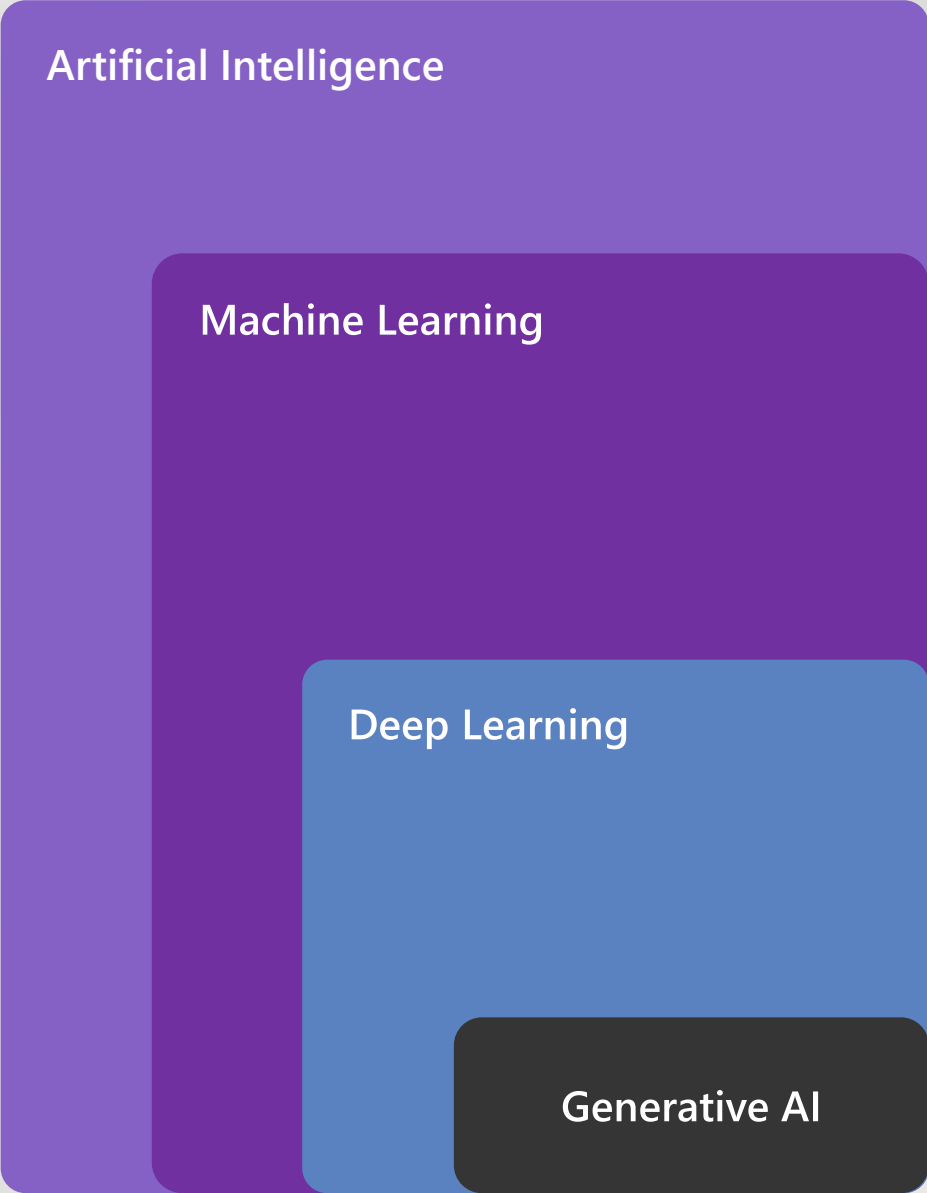


Construction on the Sasol plant in Sasolburg started in the middle of 1952, with the first units coming into operation in 1954.

Our journey because of you #Sasol70Years



ai (What)



Artificial Intelligence

Machine Learning

Deep Learning

Generative AI

1956

Artificial Intelligence

The field of computer science that seeks to create intelligent machines that can replicate or exceed human intelligence

1997

Machine Learning

Subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions

2017

Deep Learning

A machine learning technique in which layers of neural networks are used to process data and make decisions

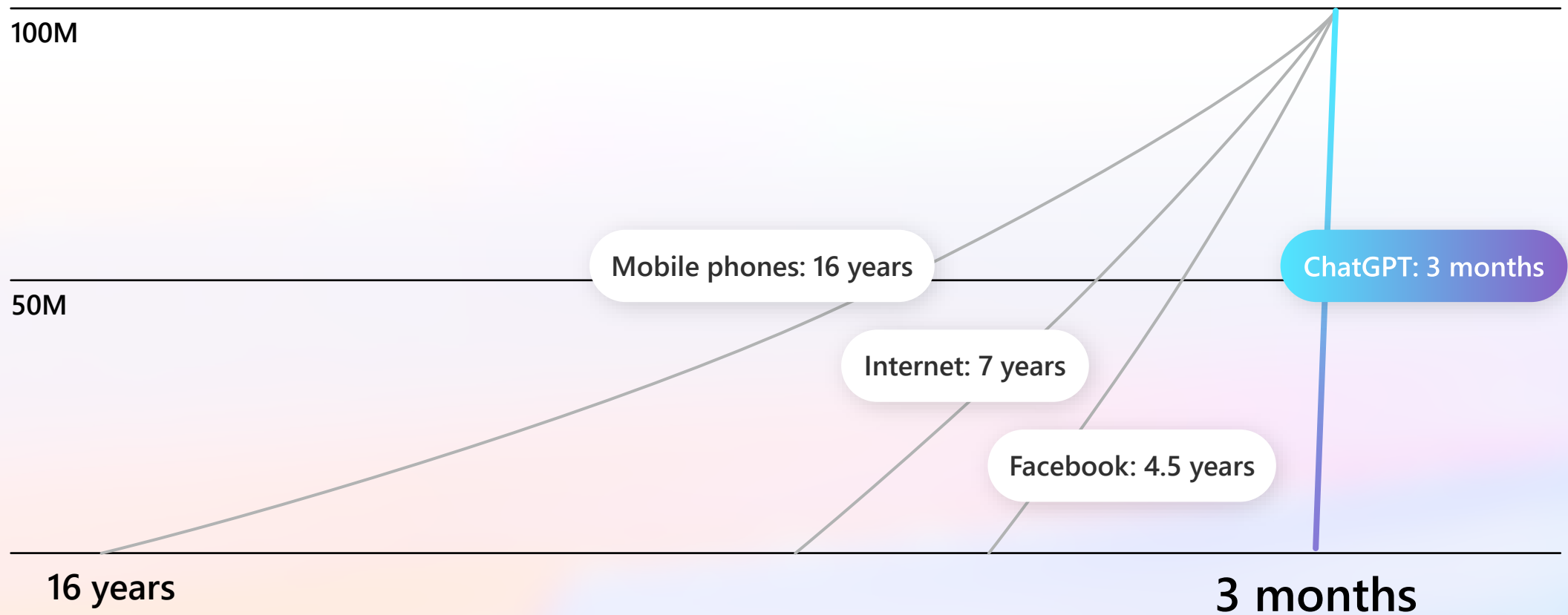
2021

Generative AI

Create new written, visual, and auditory content given prompts or existing data.

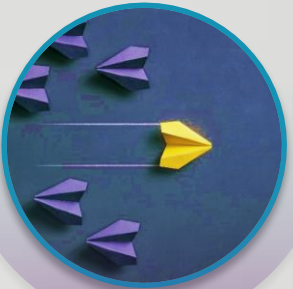
Generative AI technology is here

Time to reach 100M users



How we build AI-powered business processes

Trust. Accuracy. Accountability.



Guide users

How do I ...?
What is this ...?
How can I fix...?



Empower users

Find data
Inquire on insights
Generate reports



Ensure best decisions

Identify outliers
Assess impact
Learn patterns



Take action

Automate actions
Efficiently handle exceptions
Automate user-defined scenarios

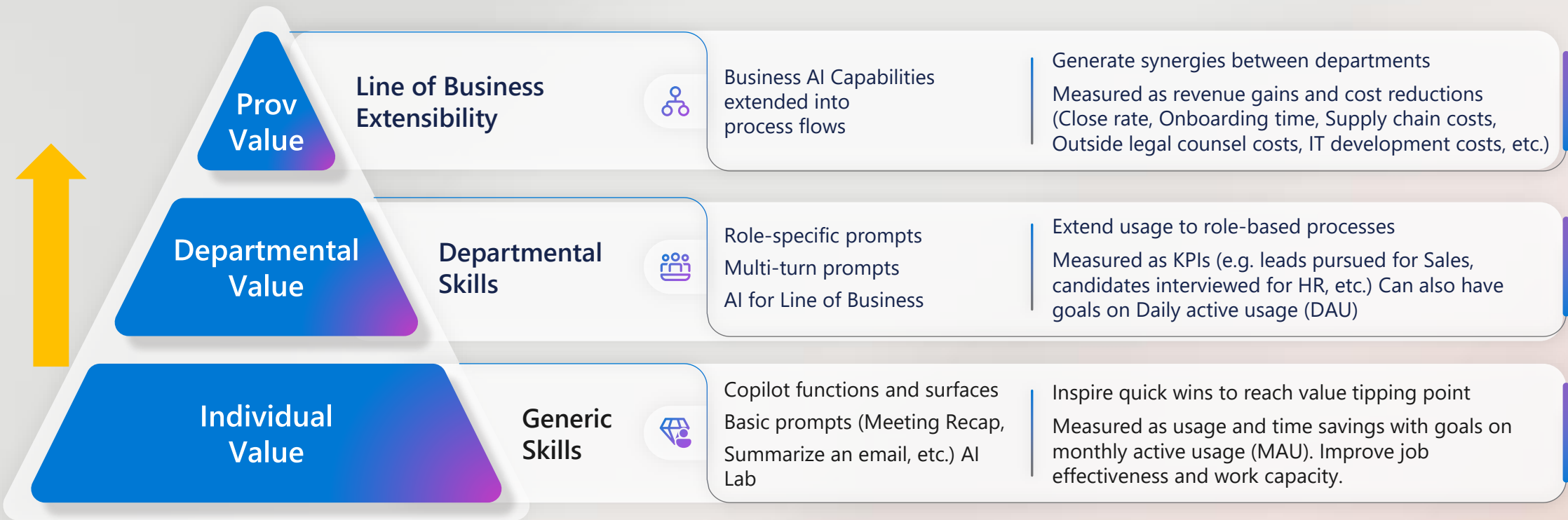
From lower stakes...



...to higher stakes

Microsoft AI Value Journey

Grow value from a base of solid usage and individual productivity by optimizing departmental processes and impacting the metrics that are important to your organization.



Microsoft AI Value Journey

with Microsoft 365 Copilot

Foundational skills for new users



1

Recap a meeting

– let Copilot keep track of key topics and action items so you can stay focused during the meeting and avoid listening to the recording after.

→ Draft an email with notes and action items from meeting



2

Summarize an email thread

– get quickly caught up to a long, complex email thread.

→ Click on the Summarize icon



3

Draft email

– personalize the tone and length.

→ Draft an email to [name] that informs them that Project X is delayed two weeks. Make it short and casual in tone.



4

Summarize a document

– get right down to business by summarizing long documents and focusing on the relevant sections.

→ Give me a bulleted list of key points from file



5

Tell me about a topic/project

– provide insights and analysis from across multiple sources to get up to speed quickly.

→ Tell me what's new about topic organized by emails, chats, and files?



6

Give me some ideas for ...

– boost your creativity with ideas for your work such as agendas, product names, social media posts, etc.

→ Suggest 10 compelling taglines based on file



7

Help me write ...

– jumpstart creativity and write and edit like a pro by getting a first draft in seconds.

→ Generate three ways to say [x]



8

What did they say ...

– when you vaguely remember someone mentioning a topic, have Copilot do the research.

→ What did person say about topic



9

How do I ...

– let Copilot help you build or fix formulas in Excel.

→ How do I sum values that are greater than 0?



10

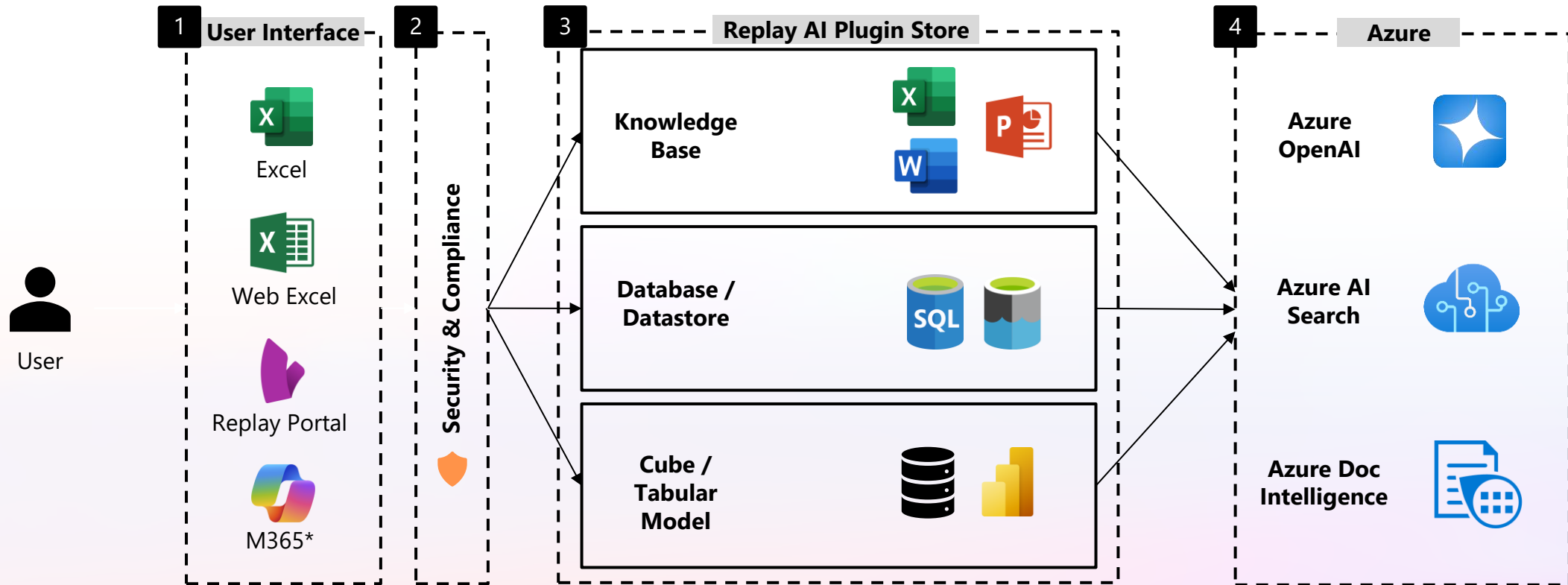
Translate a message

– with business becoming increasingly international, it's important to be able to read or write messages in other languages.

→ Translate the following text into French:

For more prompts, visit Copilot Lab at: aka.ms/CopilotLab

MS Finance AI Ecosystem



**M365 / Teams integration will be delivered in future phase*

- 1 User accesses Replay AI plugin via available UI
- 2 System checks Security layer to ensure user has permissions to access data
- 3 User engages with plugin metadata and infrastructure
- 4 User query + plugin metadata provides grounding context to Azure Generative AI services

AI-enabled process improvements in **Quote to Cash**

Project	AI enablement	Impact	
Accelerating Finance launch	Leverage historical data to create efficiencies and scale SME knowledge, accelerating the Finance launch process to maintain compliance and market competitive advantage	50%	Reduced requirements gathering cycle time per launch
Case categorization and summarization	Assigns case to proper agent which results in fewer handoffs. Provides agents with concise overviews and suggested steps for lengthy user questions which reduces case handle time	22%	reduction in case handle time
Smart cash application	Automates payments application using intelligent matching logic, which uses historical payments data and automatically links payments to outstanding invoices, leading to fewer client queries, faster payments, and lower days sales outstanding	20k	hours of time saved by agents per year
Minimized late payments and disputes	Detects customers early who have elevated risk of late payment. Creates AI-generated prioritized workflow list and streamlined agent-to-customer conversations to accelerate cash collection	10%	improvement in collection efficiency
Intelligent collections	Identifies outstanding invoices and late payments and drafts messages to those customers	1,200	hours per month of manual time saved
Concession creation	Simplifies and standardizes commercial contract concession creation and drafts of new policies to improve both customer and seller experience	80%	reduction in concession creation time
Revenue processing agent	Consolidates transaction insights, contextual next best actions, and work instructions, thereby streamlining workflows and enhancing user experience	15%	reduction in Mean Handling Time (MHT)

Impacts realized by specific teams

AI-enabled process improvements in record to report

Project	AI enablement	Impact
Commercial contract reviews	Reads 10K contracts and provides risk scoring to tag 30% that require an assessment by a technical accountant and to focus in on flagged terms	50% time reviewing standard contracts
Auto approval and anomaly detection in reconciliations	Continuously monitors and analyzes transactions that impact balance sheet accounts, identify those that are atypical for manual inspection, and auto-reconcile standard, low risk scenarios	48% balance sheet transactions auto-reconciled
Close query management	Create a self-serve tool for period-end close related queries and draft responses to those queries	10K hours saved on manual analysis of data per year
Journal entry preparation	Eliminated inefficiencies from the general accounting process including preparation of journal entry templates, postings, and reviews	18K hours saved on JE preparation per year
Draft financial statements	Generate review of the first draft of Annual Financial Statements received from partner, calling out anomalies and variances	15% less time spent on completing AFS draft
Procedure automated workflows	Reads and ingests procedure documents and then executes the tasks at regular scheduled intervals, automating large quantities of transactional level tasks	36% reduction in time spent on manual, repetitive tasks
Intelligent comments	Automating commentaries for Balance Sheet and P&L variance analysis for period-end close review and publishing, CR4 SOX control	60% less time preparing commentaries to QoQ/YoY variances

- *Impacts realized by specific teams*

AI-enabled process improvements in tax & treasury

Project	AI enablement	Impact
Single source cash forecast	Centralizes FX cash collection forecast which frees up time for subsidiaries to prepare and submit forecast, reduces P&L volatility, and reduces FX balance in reserve	50% P&L volatility
Tax return review	Automates tax review verification, data validation and reconciliation against financial sources. Expedites the review process between the Proforma Workpapers and tax return files	60% time saved in tax return review
Direct Income Tax audit prep	Gathers required audit documentation into one location and reviews to prepare for the audit	97% reduction in time for audit prep
Bank account reconciliation	<u>Copilot for Finance</u> to reduce the manual reconciliation of large amounts of data across bank accounts and improve compliance, accuracy, and readiness for tax reporting	22% decrease in manual time

AI-enabled process improvements in **planning & analysis**

Project	AI enablement	Impact
Machine learning forecasting	Proactively applies 25+ machine learning models to thousands of time series in parallel, automatically handling feature engineering, back testing and model selection to deliver results in minutes and significantly improve accuracy	50% less time spent on forecasting
Financial insights assistant	Use natural language and smart plugins to extract insights and analyze data from multiple sources -- dynamic, AI-generated queries transforms complex data into clear, actionable intelligence	250K hours saved by analysts annually
Data reconciliation	Copilot for Finance reduces the manual reconciliation of large amounts of data, improve compliance and accuracy of reporting	20% less time to reconcile data
Earnings summaries	Copilot summarizes insights from investors and analysts post-earnings, significantly shortening the time needed to manually create email updates	50% reduction in preparation of analyst reaction summaries

AI-enabled process improvements in

Project	AI enablement	Impact
Procurement data insight acceleration	Accelerates speed to insights for contract data, supplier spend, and procurement business processes	25% faster speed to insights
Supplier search	Evaluates suppliers and streamlines the RFP process by drawing actionable insights from historical supplier and sourcing meta-data and use insights to recommend optimal supplier	20% more accurate supplier search results
Sourcing strategy recommendation	Provides bid vs no bid sourcing strategy recommendation based on supplier evaluation and historical input	3.5 weeks reduced from strategic sourcing process
Supplier compliance certification validation	Automates the review and validation of documents related to supplier compliance certifications	650 hours per month saved
Supplier case summarization	Dynamics 365 agent Copilot increases efficiency of case management, reduces handoffs, and increases customer satisfaction	13% reduction in cases needing handoffs
Invoice payment automation	Automates steps of the invoice payment process where possible, limiting handoffs within our own organization	60% reduction in time to process invoices
Streamline expense reporting	Streamlines and consolidates expenses where applicable	70% reduction in expense report volume

AI-enabled process improvements in

Project	AI enablement	Impact
Procurement data insight acceleration	Accelerates speed to insights for contract data, supplier spend, and procurement business processes	25% faster speed to insights
Supplier search	Evaluates suppliers and streamlines the RFP process by drawing actionable insights from historical supplier and sourcing meta-data and use insights to recommend optimal supplier	20% more accurate supplier search results
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AI-enabled process improvements in risk management & compliance

Project	AI enablement	Impact
Deal document inspection	Translates, reviews, and extracts key insights from customer contracts, tender documents, and amendments. Searches and summarizes knowledge management docs	23% less time on document inspection
Journal entry anomaly detection	Reduces financial reporting risks of fraud or misstatements with machine learning algorithms built to review thousands of journal entries to detect anomalies	50% faster time to anomaly detection
Expense policy checks	Automatically reviews executive expenses on regular basis, leading to more consistency in the reviews, and with potential to scale to 100% coverage of expenses	70% less manual time reviewing expense reports
Knowledgebase Management System	Chat solution to answer internal queries, reducing case volume and increasing efficiency of internal team	80% time savings in audit queries
Audit and investigations briefing tool	Reads audit issues and creates a summary briefing to prepare reports	25% less time spent on audit briefings
Insights and action report	Analyzes multiple data sources to create insights and generate executive-ready report	60% reduction in time on insights report

Persona Ai Use

KPI – Outsourcing spend



Roles

Budget Analyst	Controller
Financial Planner	Data Manager
Treasury Manager	Strategic Planner
Risk Manager	



Microsoft AI solutions

Microsoft 365 Copilot
Microsoft 365 Copilot for Finance

As a cost center, Finance teams face the challenge of constantly achieving more with fewer resources. By assisting with everyday tasks, Copilot can help increase time for additional analysis, proactive audits, collections processes, and financial reporting.

How Copilot can reduce finance department spending

Keep communication lines open

- Draft communications such as approval requests, status emails, and supplier communications
- Summarize stakeholder meetings around budget status and approvals
- Create sourcing strategy decks

Reduce outsourcing requirements

- Assist with manual tasks allowing processes to be done internally

Avoid spend on finance system updates

- Extend financial systems with Copilot
- Extrapolate the risk and degree of impact by accessing customer data and distribution records to identify patterns for corrective change

KPI – Cost per analysis request



Copilot can help with lowering resolution times which in turn leads to increased analyst productivity and higher customer satisfaction rates.

How AI can help average request times

Boost productivity

- Rapidly find information
- Diagnose problems faster
- Check for similar issues and resolutions
- Quickly send follow-up communications

Speed data analysis and reporting

- Quickly analyze trends
- Generate informative charts
- Create strategy presentations



Roles

Average resolution time
can require input from:

Analyst



Microsoft AI solutions

Microsoft 365 Copilot

Microsoft 365 Copilot for Finance

KPI – Days sales outstanding



Collections play a crucial role in any business. Timely and efficient collections help ensure healthy cash flow, liquidity, and operational efficiency.

How AI can help reduce day sales outstanding

Improve collections process

- Use Copilot to organize information from past interactions
- Draft communications with Copilot clearly outlining the collection process
- Analyze different payment methods and its effectiveness
- Connect your ERP or finance system to access customer records from directly within Outlook.

Improve customer meetings

- Prepare for the meeting
- Focus during the meeting
- Generate follow up communications regarding outstanding balance or payment plan
- Connect your ERP or finance system to access customer records from directly within Outlook.



Roles

Collection Manager



Microsoft AI solutions

Microsoft 365 Copilot

Microsoft 365 Copilot for Finance

KPI – Risk management



Finance teams grapple with complex tasks—from credit and collections to risk management and compliance. Get real-time insights and strategic recommendations. By automating mundane tasks, Copilot frees up time for critical decisions, streamlining audits, simplifying collections, and accelerating financial reporting.

How Copilot can improve risk management

Speed data analysis and reporting

- Quickly analyze trends
- Generate informative charts
- Create strategy presentations



Roles

Budget Analyst
Risk Manager

Compliance



Microsoft AI solutions

Microsoft 365 Copilot
Microsoft 365 Copilot for Finance
Copilot Studio

KPI – Spend on financial systems and tooling



Roles

Financial Analyst

Executive Leadership



Microsoft AI solutions

Microsoft 365 Copilot

Copilot Studio

Microsoft 365 Copilot Chat

Microsoft 365 Copilot for Finance

Copilot can be extended into processes to bring data together and speed decision-making without performing expensive updates to financial systems.

How AI can help reduce day sales outstanding

Inform your decisions

- Draft budgets and spreadsheets
- Search for cost variances across different options

Improve your data

- Use Copilot Studio for secure data retrieval from existing systems

A day in the life of a Vendor Engagement Manager

Available with:
Microsoft 365 Copilot

Scenario level:
[Buy](#)

Benefits

⌚ ~1 hour per week

🔄 Areas of investment: Vendor meetings

★ Vendor evaluations

8:00 am – Summarize emails

Kim has several new emails from vendor companies and internal teams. Instead of reading through each email, he uses Copilot to summarize recent emails.



Copilot Chat²

Action: Summarize this thread.

9:30 am – Suggest formulas

Kim uses Copilot for Finance in Excel to analyze a vendor's compliance data.



Copilot in Excel

Example prompt: Suggest formulas for this column. Show insights in charts.

10:00 am – Get key points

During a meeting with the vendor, Kim uses Copilot in Teams to keep track of the discussion. After the meeting, Copilot helps identify next steps.



Copilot in Teams

Example prompt: Summarize key discussion points. Identify agreed-upon next steps.

4:00 pm – Create an agenda

Kim uses Copilot to manage his tasks. He creates a meeting agenda based on this chat history to prepare for his meetings.



Copilot Chat²

Example prompt: Create a meeting agenda based on this chat history.

2:00 pm – Create a presentation

Kim needs to create a presentation for a potential vendor. He uses Copilot in PowerPoint to create a new presentation from this Word file and improve the layout of his slides.



Copilot in PowerPoint

Example prompt: Create a new presentation from this Word file. Change the layout of this slide.

11:00 am – Draft a report

Kim uses Copilot in Word to draft a report, prompting it to bring in specific information from other documents. He also uses Copilot in Word to improve the clarity of his report.



Copilot in Word

Example prompt: Draft content from these documents. Suggest ways to rewrite this content.

Kim
is a Vendor
Engagement
Manager in Finance.



¹Access M365 Copilot Chat at m365copilot.com or the Microsoft 365 Copilot Chat mobile app and set toggle to “Web”.

²Access M365 Copilot Chat at m365copilot.com, the Microsoft 365 Copilot Chat mobile app, or the M365 Copilot Chat app in Teams, and set toggle to “Work”.

³AI Agents allow Copilot to access your organization-specific apps. In the past this would have required an API call to get data from a system of record.

The content in this example scenario is for demonstration purposes only. You should evaluate how Copilot aligns with your organization's business processes, regulatory requirements, and responsible AI principles.

A day in the life of a Budget Officer (Controller)

Available with:
Microsoft 365 Copilot

Scenario level:
[Buy](#)

Benefits

~1 hour per day

Areas of investment: Analysis

Communications

8:00 am – Summarize communications

The day begins with reviewing emails, memos, and updates related to budgetary matters. The budget officer prepares for meetings with other departments to understand their funding needs and priorities.



Copilot Chat²

Prompt: Summarize my emails that are related to the budgetary meetings I have today.

9:30 am – Analyze data

The officer analyzes budget requests from various departments, ensuring alignment with organizational goals. They review the financial data, examining spending patterns, revenue projections, and cost estimates.



Copilot in Excel

Prompt: Compare last 4 years' approved budget and spending vs this year's proposed budget and projective spending.

11:00 am – Summarize meeting

The budget officer attends meetings with department heads, program managers, and finance teams. They discuss budget proposals, adjustments, and potential trade-offs. Collaboratively, they make decisions on resource allocation, considering priorities and constraints.



Copilot in Teams

Prompt: Summarize the key discussion points from the meeting and provide me a list of key action items.

4:00 pm – Summarize communications

The officer ends the day by checking messages and emails that may have been missed due to meeting conflicts. Using Copilot, they can catch up and follow-up as needed tomorrow.



Copilot in Teams

Prompt: Summarize this thread calling out where my name was mentioned and any action items for me.

3:00 pm – Analyze data

The budget officer constantly monitors spending against approved budgets. If overspending occurs, they work with departments to reallocate funds or seek additional approvals.



Copilot in Excel

Prompt: Create a pivot table to Sort the spending data from this quarter by department. Highlight those departments that spent more than their allotted budget.

1:00 pm – Create presentation

After meeting with the other department heads, the officer prepares reports and budget proposals for senior government officials. Clear communication is essential to keep stakeholders informed and maintain transparency.



Copilot in PowerPoint

Prompt: Add a slide based on this updated table from [Word file].

Isabel

is a Budget Officer and plays a crucial role in managing financial resources and ensuring efficient allocation of funds within her agency.



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AI can help procurement employees as they work to negotiate contracts that reduce costs and manage risks. Copilot can help to find information, enhance collaboration, and assist with writing.

KPIs impacted

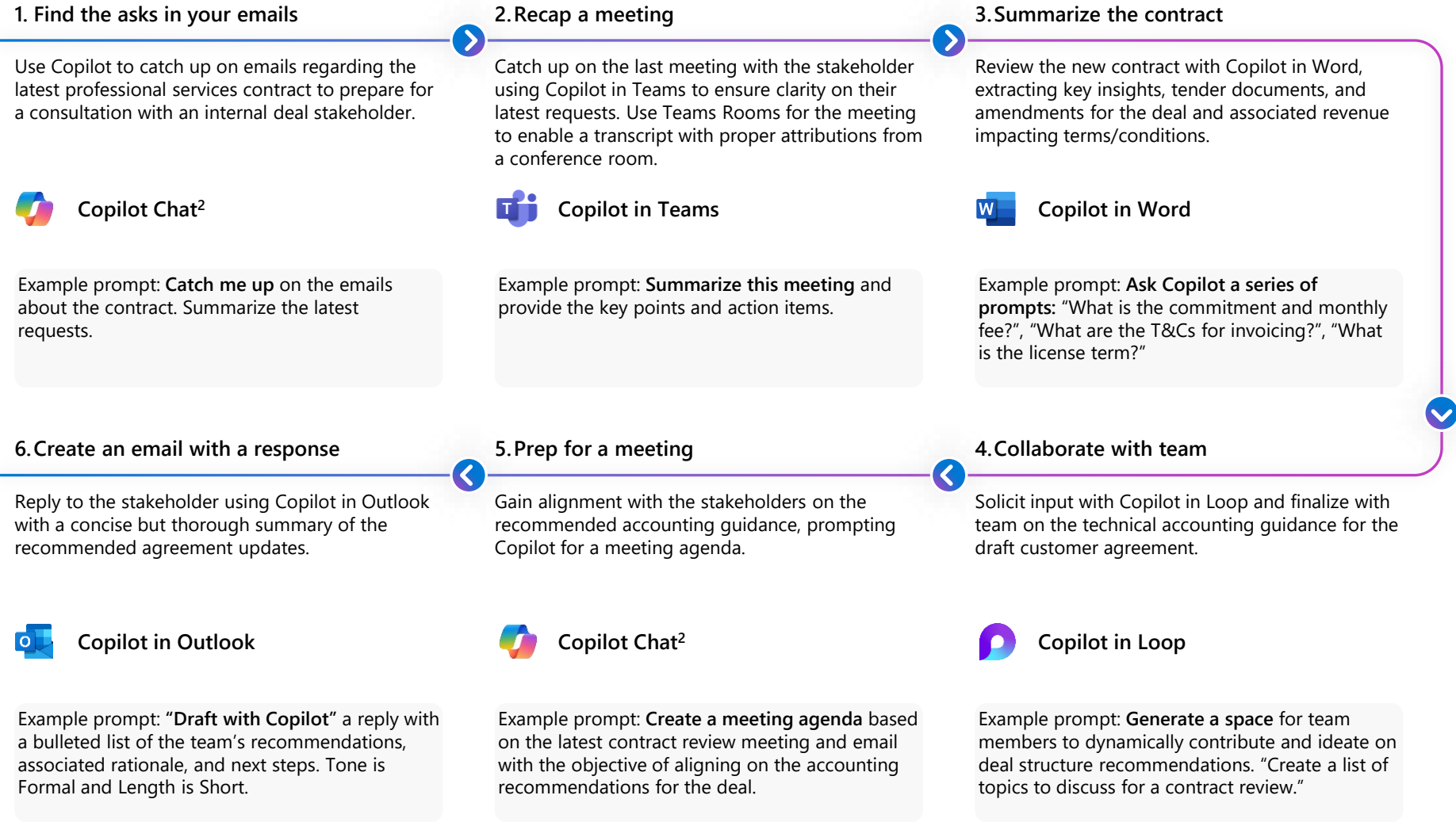
Reduce spending

Risk management

Value benefit

Cost savings

Employee experience



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DEMO

Thank You