



# **SAP BTP Webinar**

## **Boost Operational Efficiency with SAP AI Business Services – A focus on Document Information Extraction**

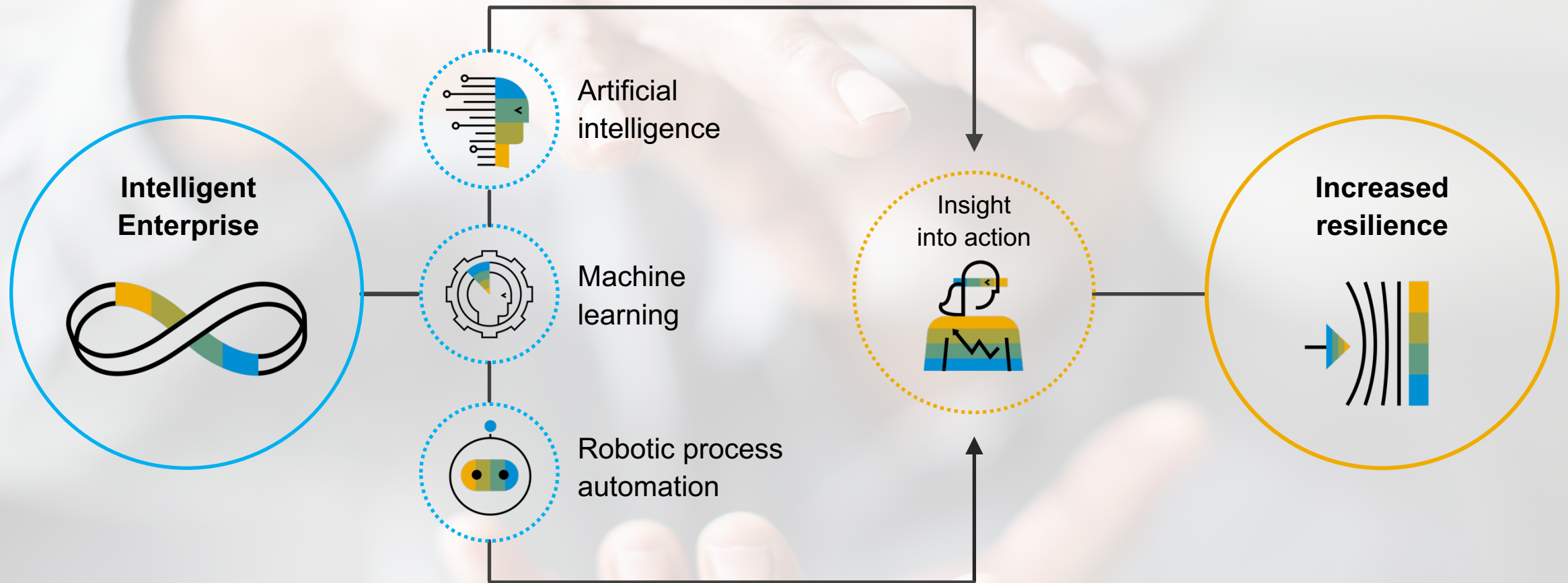
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# Innovative Technologies Support Business Resilience





# Essential AI Capabilities Future-Proof the Business

AI-enabled solutions help companies:



Streamline enterprise processes and operations:

- Analysis
- Optimization
- Recommendations
- Planning
- On-demand monitoring



Improve existing products



Create innovative new products

Deliver an exceptional customer experience



# The Future of Intelligent Enterprises Demands AI Capabilities

**By embracing these key technologies . . .**



Artificial intelligence



Machine learning



Robotic process automation



**. . . SAP helps intelligent enterprises benefit from these capabilities:**

Analysis

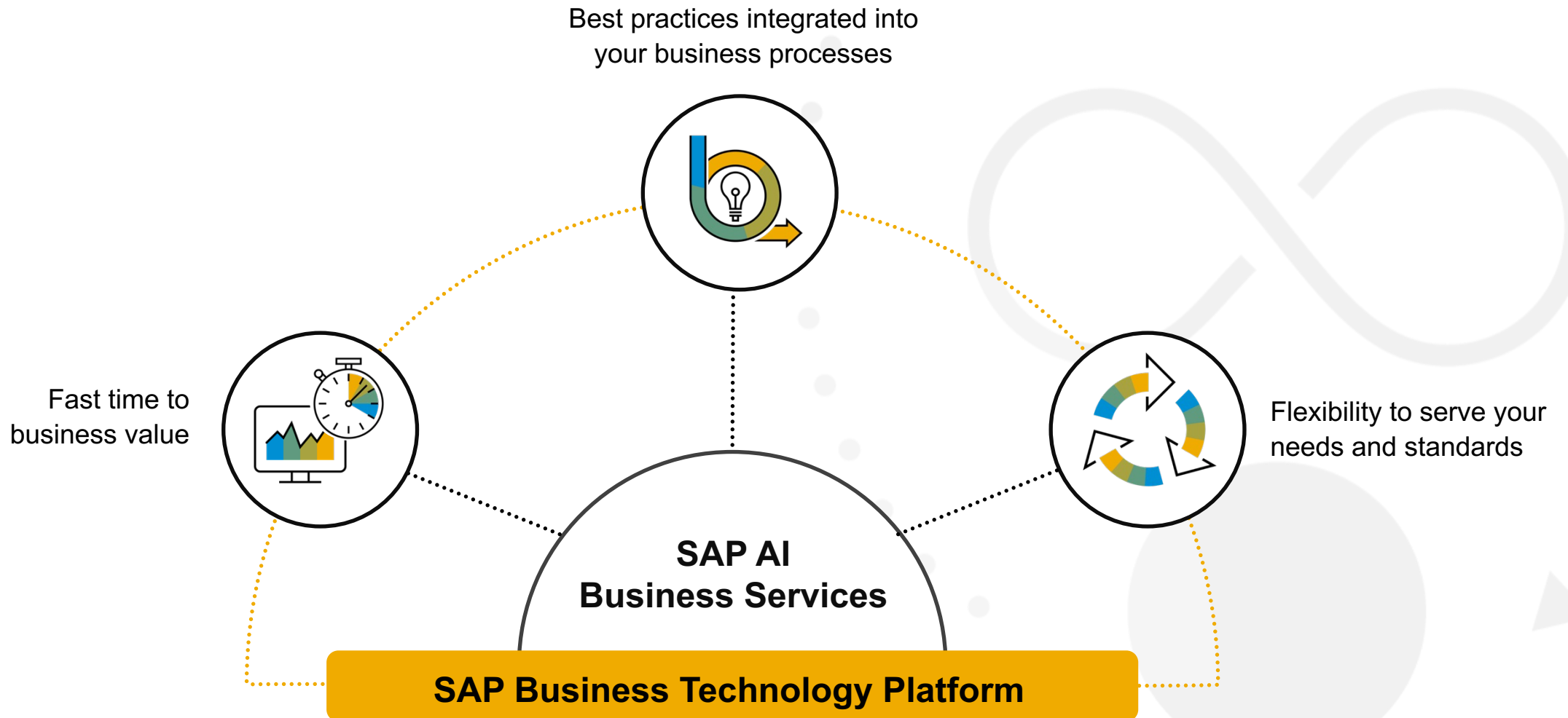
Optimization

Recommendations

Automation

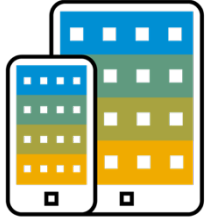
Data extraction

# Realize Rapid Value from AI Technologies with SAP AI Business Services





# Automate & Optimize Business Processes with SAP AI Business Services



Add intelligence to your applications using AI models pretrained on business-relevant data, available on SAP Business Technology Platform.

Available via CPEA and SAP Store

## Business Document Processing



### Business Entity Recognition

Detects and highlights named entities in unstructured text



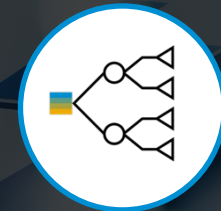
### Document Information Extraction

Automatically extracts information from unstructured documents and classifies them



### Personalized Recommendation

Get accurate recommendations based on users' browsing history and/or item description



### Data Attribute Recommendation

Perform classification and regression tasks

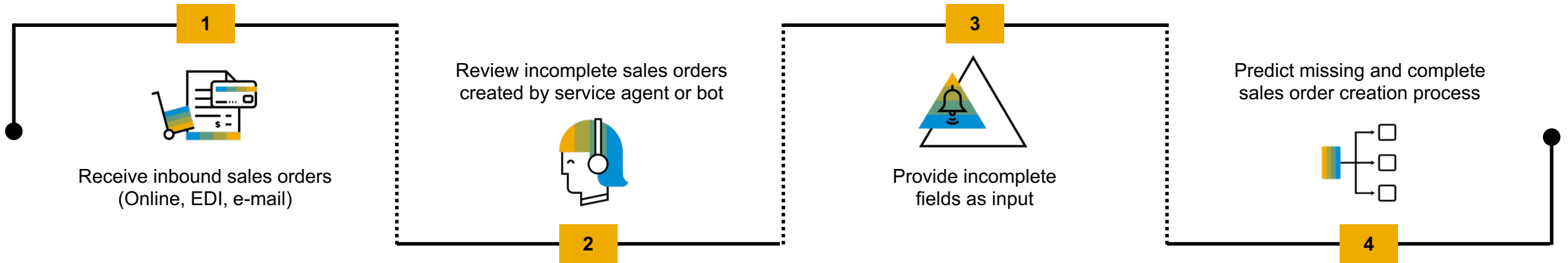
Available on  
SAP BTP Free Tier

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SAP BTP Free Tier

# Sales Order Auto Completion



## Business Challenge

- Incomplete and overdue sales orders due to missing information
- High manual effort needed to retrieve missing information
- Delay in order fulfillment in the order-to-delivery process



## Solution

### Data Attribute Recommendation

- Feeds incomplete fields as input to service
- Offers the potential to combine with rule-based procedures
- Classifies sales order exceptions for automated processing

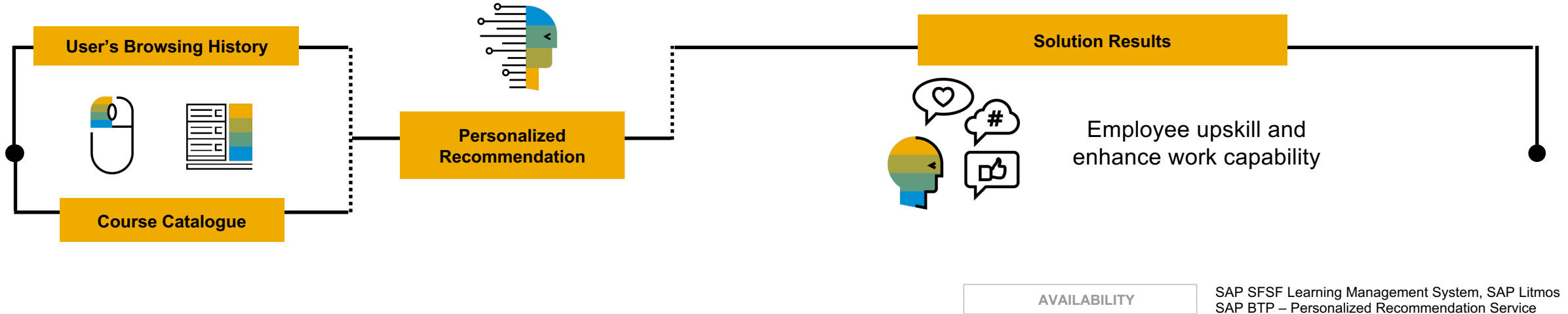


## Benefits and Value

- Reduced manual efforts for order completion significantly
- Expedited overall sales order processing
- Leveraged extensive cost-saving potential



# Learning Recommendations



## Business Challenge

Employees struggle with finding relevant courses

- Overwhelming volume of information that makes it difficult to notice and keep track of useful information
- Lack of effect tools that makes it difficult for the employees to find the most useful information



## Solution

### Personalized Recommendation

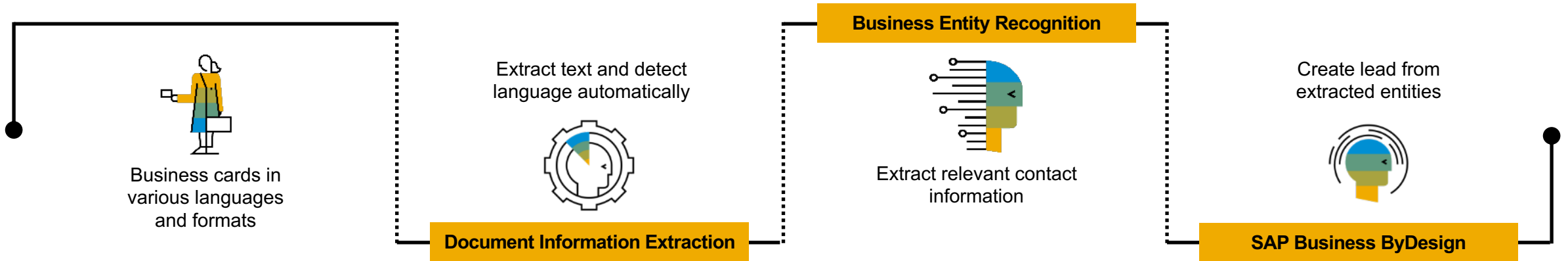
- Connects employees with personalized learning beyond traditional course catalogues to fit their learning goals and situation.



## Benefits and Value

- Connect employees with personalised learning to fit their learning goals and situation, enabling them to upskill and have personal growth.
- Make better use of vast amounts of relevant and current learning content available
- Talent development to build a better workforce
- Help organizations create a culture of learning

# Intelligent lead capturing from business cards



## Business Challenge

- Business cards collected at events or conferences need to be entered manually to capture leads
- Business cards typically come in various languages and formats
- Manual lead capturing might lead to errors and increases the processing time



## Solution

### Document Information Extraction

- Automatically extracts structured information from unstructured documents such as business cards

### Business Entity Recognition

- Extract contact-relevant information via pre-trained business card model



## Benefits and Value

- Reducing the manual work
- Speeding up the overall process
- Reducing extraction errors
- Focusing on value-creative tasks
- Immediately productive via pre-trained models





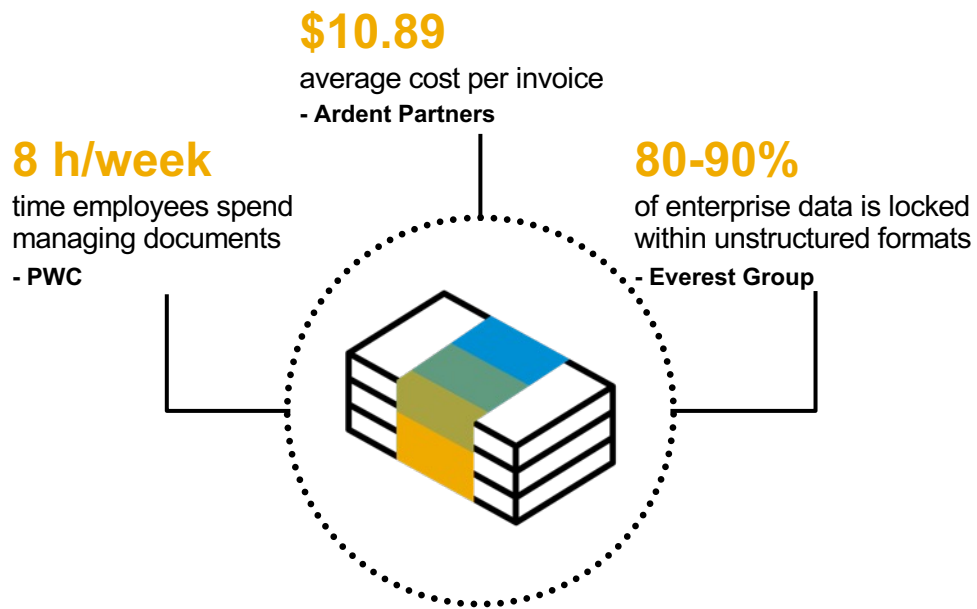
**62%** of accounts payable costs come from **labor**.

Source: APQC, 2015 "[AP Process Cost Per Invoice Processed](#)"



# Document Information Extraction

## Intelligent document processing with SAP



### Document Information Extraction



**Extract** information with pre-trained models for various document types and languages



**Enrich** the extracted information with your master data through automated matching



**Extend** the existing models with your own templates to process additional document types

“SAP captured and converted new invoices we supplied for the demo much more accurately than others, indicating superior expertise.” IDC

“At Aspen Pumps, the Document Information Extraction service from SAP helps us to achieve **~90% of extraction accuracy** for supplier invoices out of the box, laying a great foundation for much faster execution of Accounts Payable processes. It helps to save up to **350 hours monthly** in invoice processing, so approximately **£5000 per month.**” Aspen Pumps | Jon Curlis

Transform **unstructured documents** into **structured information** for **instant value.**



### Accuracy

Achieve more accurate results than classical systems



### Automation

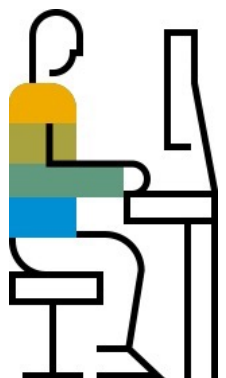
Increase efficiency and enable teams to focus on strategic tasks



### Cost

Reduce processing costs and leverage advantages in follow-up processes

# Problem: Large Amounts of Incoming business documents



John,  
AP-Clerk

**Time2Go  
Company**

**Your Company**  
M. Max Apfel-Birne  
Birkenstr. 24  
54321 Birnenstadt

**Contact:**  
Time2Go Company  
Am Apfelbau 13  
12345 Apfelstadt  
**Tel.** +1134/43215  
**Date:** 01.11.2013  
**Invoice n°:** 123456  
**Customer n°:** 0987

**Invoice**

Amount	Unit	Object	Price
1400	Pc.	Apples	\$1,684.-
120	Kg	Nuts	\$2.000
<b>Total Amount</b>			<b>\$ 3,684.-</b>
19% taxes incl.			

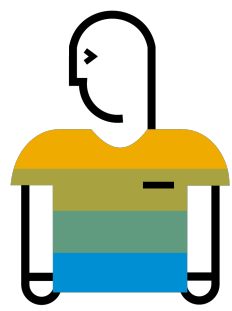
To pay until 11.12.2013

Time2Go Company  
Am Apfelbau 13  
12345 Apfelstadt

DE12 123412341234  
Apfelbank  
XYZ1234ZXY

Company	Time2Go Company
Supplier ID	009753
Invoice N°	123456
Amount	3684.00
Currency	USD
Date	2013-11-01
Position 1	Amount: 1400 Unit: PC Amount: 1684.00 Description: Apples
Position 2	Amount: 120 Unit: KG Amount: 2000.00 Description: Nuts

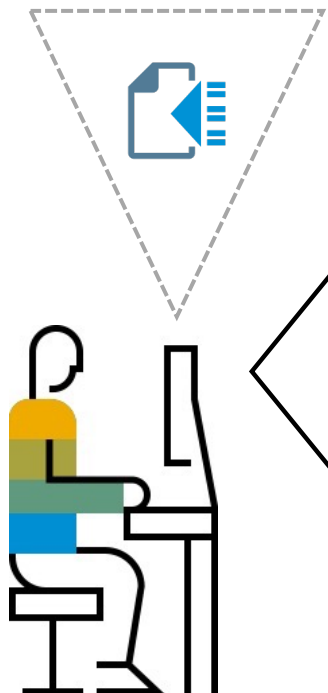
Enrichment  
happens  
manually



John,  
spends much time  
on searching and  
matching the right  
information



# Solution: Document Information Extraction



John,  
AP-Clerk

**Time2Go  
Company**

**Your Company**  
M. Max Apfel-Birne  
Birnenstr. 24  
54321 Birnenstadt

**Contact:**  
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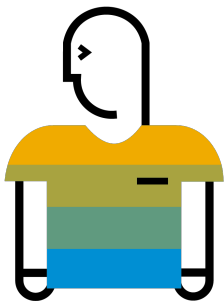
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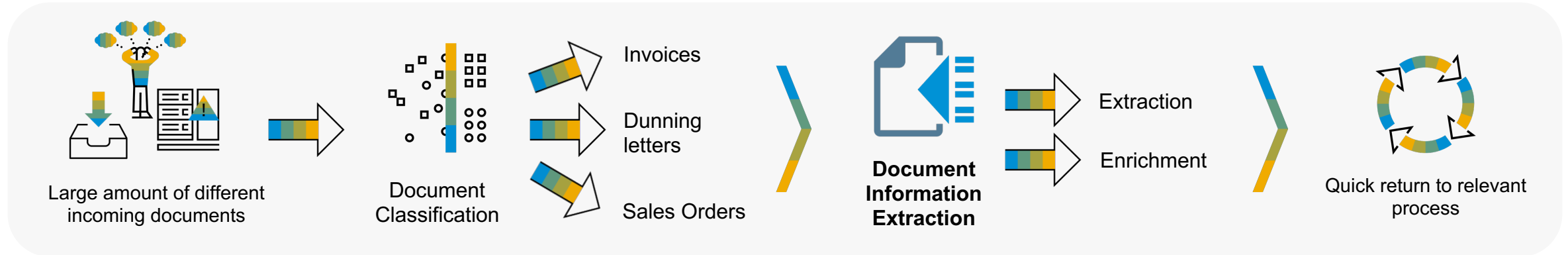


**John,**  
Can now do more  
value  
creating tasks





## Scenario 2 – Enterprise Mail-Inbox



### BUSINESS PROBLEM

- **Large amount of business documents attached to emails** coming from customers and partners
- Process is often **slow, manual and error-prone** - speed and quality of processing suffer

### SOLUTION

#### Document Classification:

- Classification of incoming documents

#### Document Information Extraction:

- **Extraction** of all relevant information automatically from the document
- **Enrichment** of the extracted information with additional information

### BENEFITS

- **Minimization of repetitive tasks**
- Focusing on **value-creative** tasks
- **Faster and more accurate** responses to the customer
- **Less time bottlenecks** in processing documents

#### SAP SOLUTIONS IN THIS USE CASE:

- Document Classification as part of SAP Enterprise Agreement
- Document Information Extraction as part of SAP Enterprise Agreement

# Scenario 3 – Shared Service Center



## BUSINESS PROBLEM

- **Large amounts** of incoming documents
- **The quality of the customer service** cannot be maintained due to errors and long responses

## SOLUTION

### Document Information Extraction in Shared Service Centers:

- Using synergies of various ML applications to automate the E2E process of customer requests
- Extraction of header fields and line items on unstructured text-documents (e.g. invoice, payment advice, customer order)

## BENEFITS

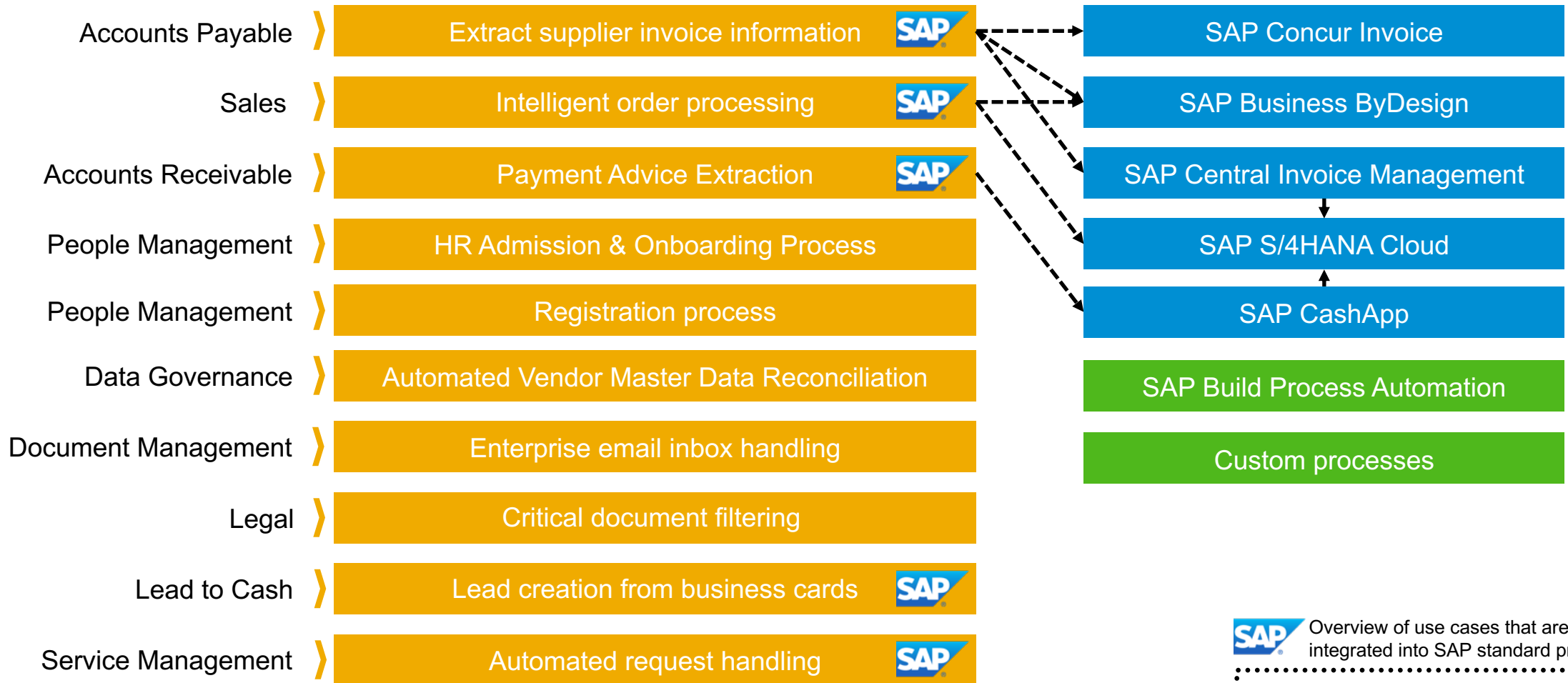
- Less manual work for customer service
- Higher quality of customer service
- Faster request processing
- More accurate results
- More efficient work

### SAP SOLUTIONS IN THIS USE CASE:

- *Document Information Extraction via SAP Enterprise Agreement*
- *Service Ticket Intelligence via SAP Enterprise Agreement*
- *SAP Intelligent Robotic Process Automation*

# Document Information Extraction

## Business use cases



**SAP** Overview of use cases that are natively integrated into SAP standard products:

**STANDARD INTEGRATIONS**



# Document Information Extraction

## Product overview & roadmap



Find also on  
SAP Discovery  
Center

### Product Capabilities



#### SAP-managed Use Cases

Supplier Invoice  
Payment Advice  
Purchase Order  
Business Cards  
(only via API)

#### Features & Extensions

User Interface  
Master Data Enrichment  
Business OCR  
Schema definition  
Template creation & management

### Globalization

[Official languages](#)  
(per document type)

[Business OCR Languages](#)

Data Centers:  
EU10, EU11,  
JP10, US10,  
AP10

### SAP-managed Extractors

[Extracted Header Fields](#)

[Extracted Line Items](#)

### Consumption

[DOX API Reference](#)

[DOX User Interface Application](#)

[Standard Integrations](#)

### Roadmap Outlook (2023-...)



Scene Text Recognition



New generation of SAP-managed models (Charmer)



Enhanced schema configurations

WIP

Automated extraction powered by Generative AI

WIP

Enhancements & improvements for SAP managed models (e.g. new languages)

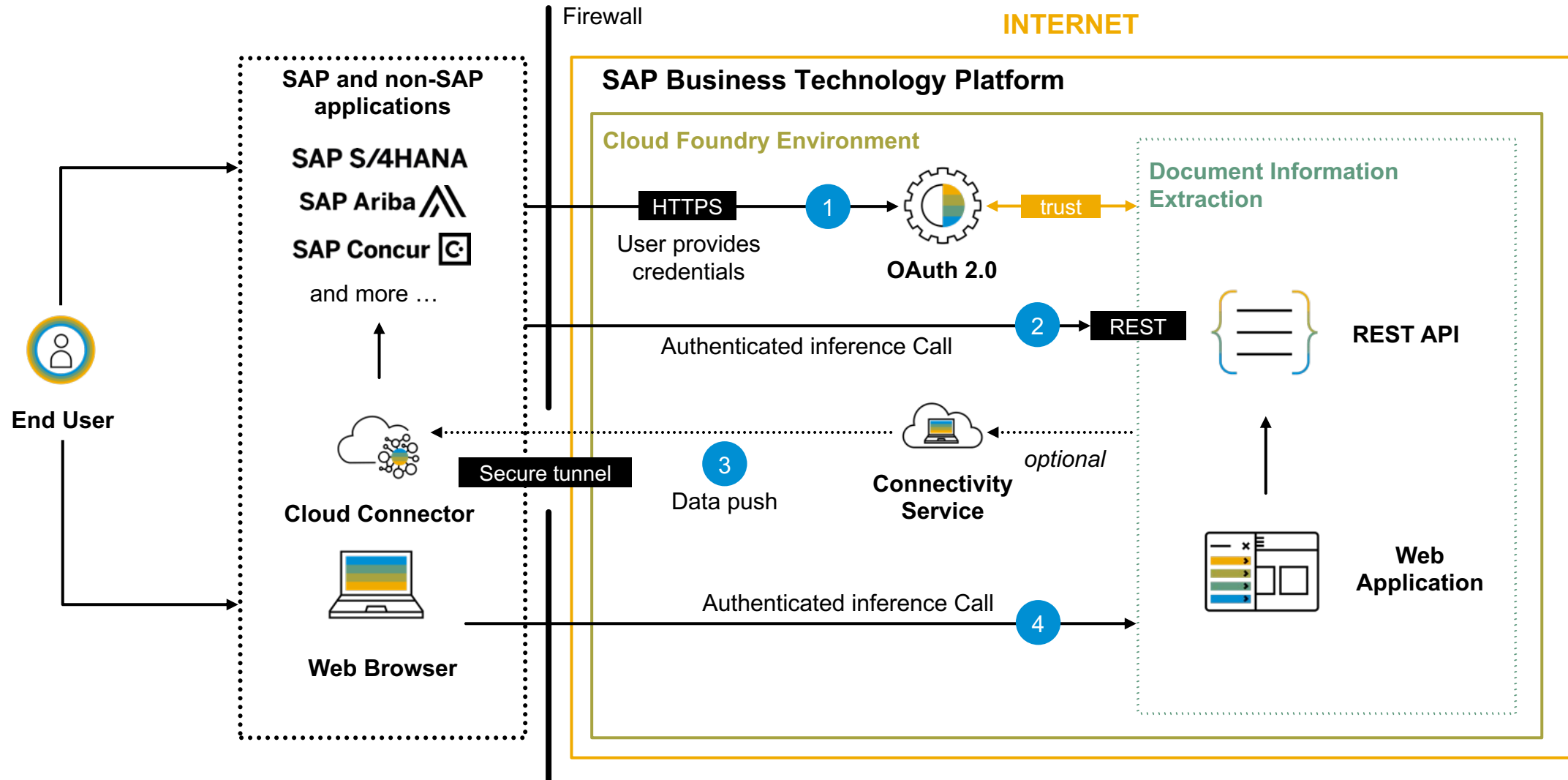
WIP

Document Classification

WIP

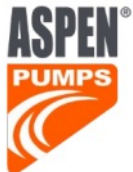
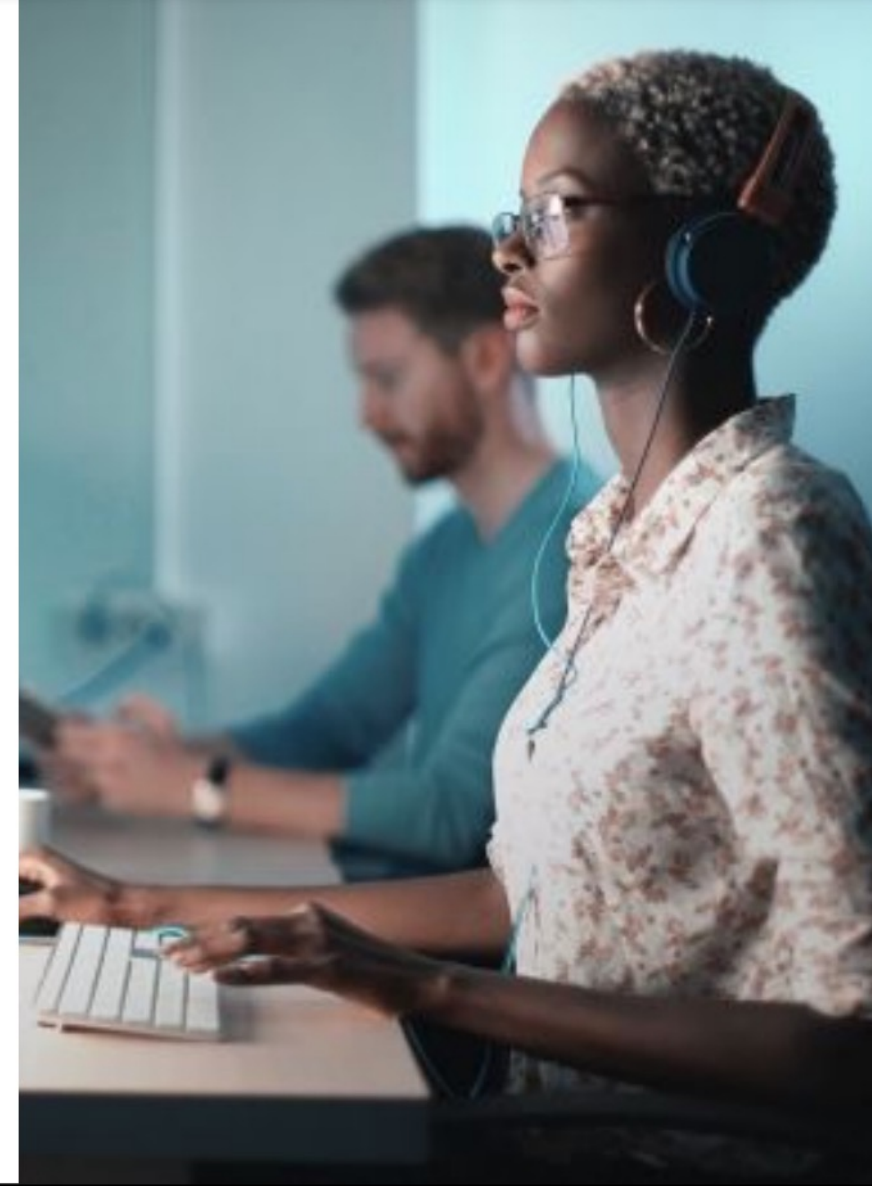
# Document Information Extraction

## Integration Architecture



“At **Aspen Pumps**, the Document Information Extraction service from SAP helps us to achieve **~90% of extraction accuracy** for supplier invoices out of the box, laying a great foundation for much faster execution of Accounts Payable processes. It helps to **save up to 350 hours monthly** in invoice processing, so approximately **£5000 per month.**”

Jon Curtis, Group Business Systems Consultant, Aspen Pumps Group



Aspen Pumps  
Apex Way, Hailsham,  
United Kingdom  
[www.aspenpumps.com](http://www.aspenpumps.com)

Industry  
Industrial Machinery  
and Components

Featured Solutions and Services  
Document Information Extraction service  
(DOX), one of SAP AI Business services





# Success story - Automate AP Processes

## Canadian integrated energy company (2022)



### Challenges

Several inefficiencies identified in customer's existing invoice management process, including inflexibility, high IT demands, and a poor invoice identification rate of less than 7%.



### Solution and business results

Implementation of **SAP Build Process Automation, powered by Document Information Extraction (one of the SAP AI Business Services on SAP BTP)**

- 80% invoice recognition and posting rate
- 20,000+ invoices processed monthly
- 20 FTE workload
- 7,000\$ savings per day
- 120 hours savings per day
- 1,800,000\$ projected savings p.a.

KPIs	Company's lower bound	Company's upper bound	Industry avg. <a href="#">(reference, p.16)</a>
Assumed cost per invoice (Y)	10	15	17.6
Reported saving through SAP Build + DOX (X)	7	7	7
Remaining cost per invoice	3	8	10.6
Anticipated cost reduction (X/Y)	70%	46%	40%



## Reduce costs and gain control with Concur Invoice

### Products

- Travel
- Expense
- Invoice

### Locations

- Americas
- Europe
- Asia-Pacific
- MEA



<https://www.concur.com>

SAP Concur Invoice consumes Document Information Extraction service and integrates it into its offering, to automate the invoice processing as part of accounts payable.

**Document Information Extraction**  
is **live** with **4.000** Concur  
customers processing more than  
**3.5 million** invoices per month.

With Concur Invoice you can **reduce your average cost** of processing a single invoice by more than **80%**. Automate invoice processing while increasing insight and control.

## Automate and simplify accounts payable accounting with Machine Learning

### SAP AI Business Services

Document Information Extraction:

- Data Extraction
- Vendor Matching
- Employee Matching



<https://www.sap.com/ml>

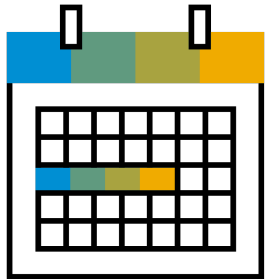
# Success story – Invoice Processing Automation



**34%**

decrease in time spent  
on invoice related tasks

---



reduced invoice  
processing time to just

**5 days**



## Document Information Extraction

improves data extraction results like  
invoice number and vendor name and  
as a result frees up AP teams to focus  
on what matters most.

---

Optimizing accuracy and employee productivity leads  
to faster invoice turnaround times.

With improved accuracy, the Accounts Payable team  
focused on optimizing their payment strategies and  
negotiate more favorable terms with existing vendors.  
This improves employee morale and drives business  
value.



# Document Information Extraction

## Key takeaways

**Out-of-the-box automation** with pretrained models for different document types

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**Integrated offering** available as part of various SAP applications

---

Focus on **improving the efficiency** of your employees

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State of the art technology is used to deliver **best of breed accuracy**





# Document Information Extraction

Start today



## Ready to Use

- Available under [Free Tier](#) option on SAP BTP
- Commercially available via **Cloud Platform Enterprise Agreement**, on **SAP Store** or as **Pay-as-you-go** model
- Available as **Test Demo & Development** for Partners
- Available on following Data Centers: EU10, EU11, JP10, US10, AP10

[SAP HELP  
PORTAL](#)

[SAP DISCOVERY CENTER](#)



## Natively Available

The service is integrated into variety of SAP standard products that you use already today:

- [SAP Concur Invoice Capture](#)
- [SAP Central Invoice Management for SAP S/4HANA Cloud](#)
- [SAP CashApplication](#)
- [SAP Business ByDesign](#)
- [SAP S/4HANA Cloud](#)
- [SAP Build Process Automation](#)
- ...and many more (see consumption options).

[SAP  
COMMUNITY](#)

[CONSUMPTION OPTIONS](#)

# Thank you.

Contact information:

[ai@sap.com](mailto:ai@sap.com)



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