



CONNECTING WITH SUCCESS

Connecting with AI

Praxisbeispiele, was heute schon möglich ist

CONNECTED, 14.11.2023

Ruben Aster, QUIBIQ Hamburg



Ruben Aster

Azure Cloud Solution Architect

- 39 Years young(!)
 - In the Industry since 15+ years
 - Started in Games Industry
 - Focus since 6+ years on Azure Integration & Artificial Intelligence
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- LinkedIn: ruben-aster
 - Medium: @Ruben.Aster

Agenda

Connecting with AI - Praxisbeispiele



01

Project: Spairliners
Email Assistant



02

Project: REOS Support
Automation



03

Project: REOS
Documents
Automation



04

Project: Laboratory
Knowledge
Management



05

And so much more



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AI + Integration = A large, stylized blue letter 'A' with a downward-pointing arrow at its base, indicating a result or outcome.



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Spairliners

Email Assistant

Grüße an Jonathan!
😊

Project – Spairliners Email Assistant



Who they are, what they do

- Joint Venture of Air France-KLM and Lufthansa Technik
- Global support for Airbus A380 and Embraer 170/190 operators
- Efficient Repair and Supply Chain Solutions
- QUIBIQ has a long-term Collaboration for their Azure Integration Scenarios

Their Strengths

- With few People they manage to provide a highly efficient Service
- High Technology Affinity and well-organized IT Department
- High Focus on Process Automation and creative technological Solutions



Project – Spairliners Email Assistant

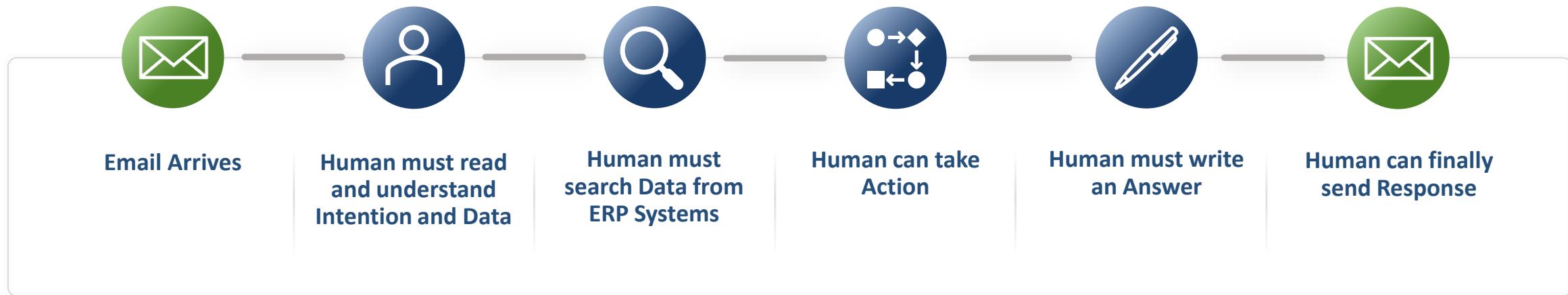


but ...

Project – Spairliners Email Assistant



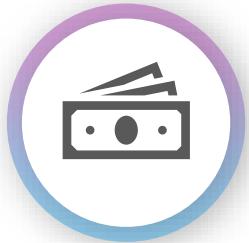
Support still processed Emails completely by Hand ...



Project – Spairliners Email Assistant



The Challenge



Airplanes on
Ground cost
Money every
Minute



Very strict SLAs,
Replacement
Parts within
30mins

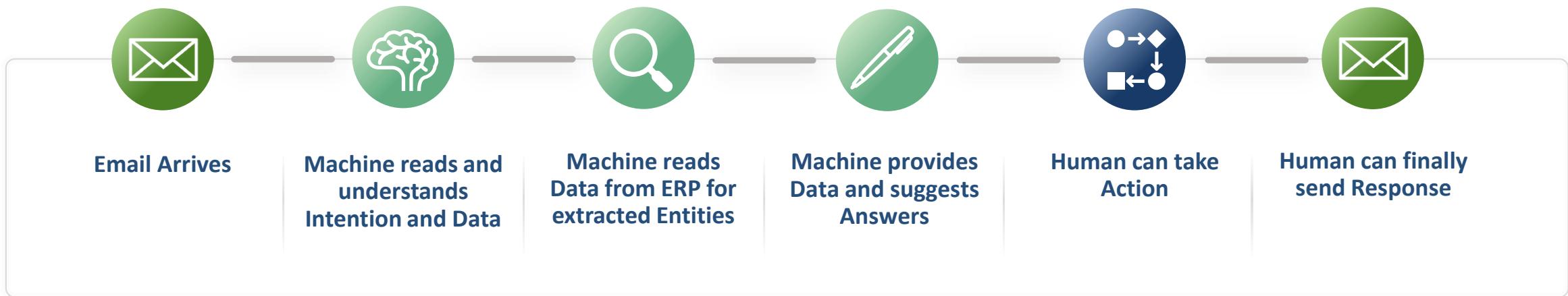


Supporters need
to act quick,
understand,
prioritize and
take Action

Project – Spairliners Email Assistant



It would be much better if Supporters get a Tool



Project – Spairliners Email Assistant



Outlook Add-In Email Assistant

- Classifies Email Context
- Reads relevant Entities (Customer, Locations, Parts, Orders)
- Entity Data read from ERP
- Answer-Suggestions based on Classification
- Displays ERP Information and suggested Answers in Web-View
- Outlook Add-In developed using React

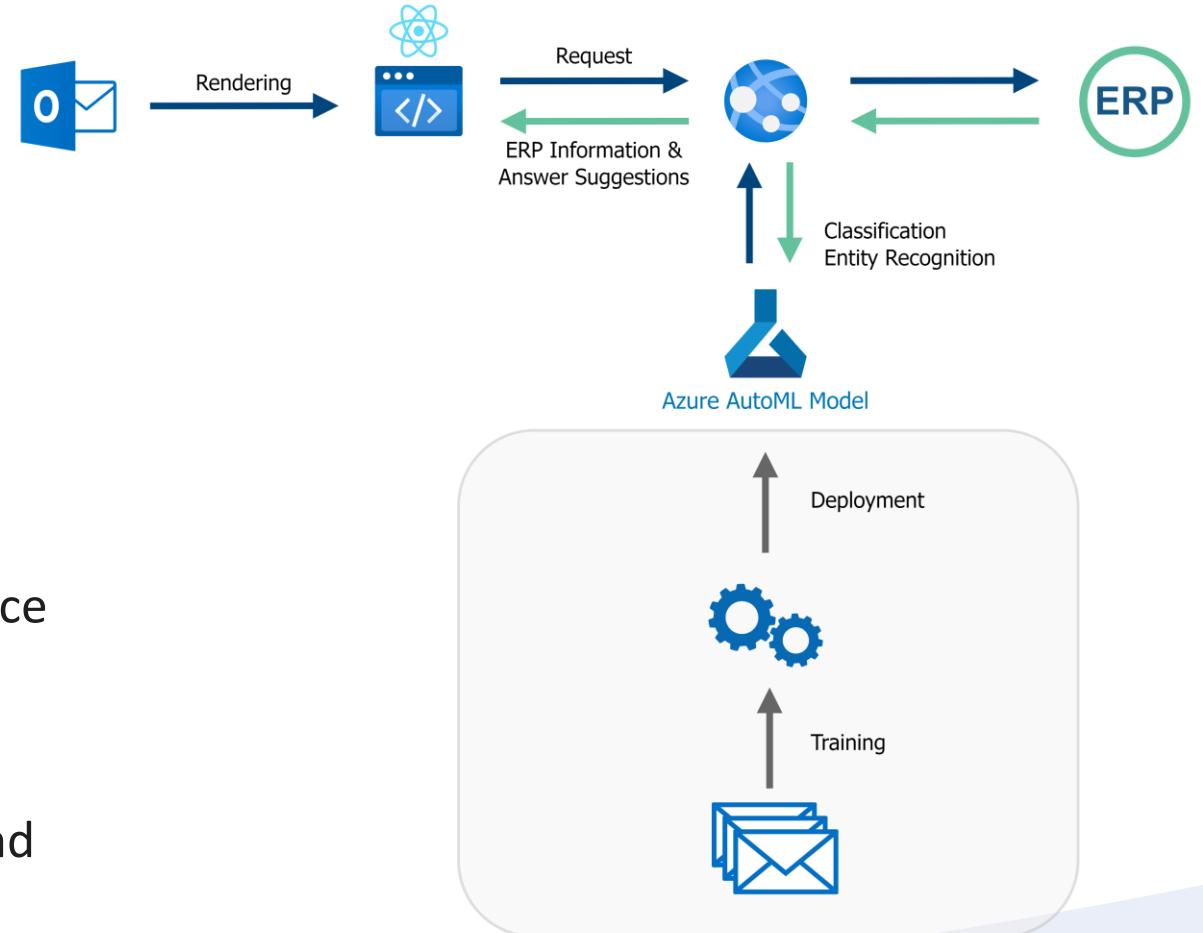
A screenshot of the Microsoft Outlook application window titled "RE: VA for 4SL CL PO 6000000060 - Message (HTML)". The message body contains an email from "Jonathan.Mayer@spairliners.com" to "RE: VA for 4SL CL PO 6000000060". The message content includes a greeting, a question about creating a shipping order, and contact information for Lufthansa Technik Component Services. To the right of the message body, there is a sidebar titled "Email Assistant (Preview)" which displays "Category: Shipping Terms", "Entities: Purchase Order 6000000060 (Type: CLL, Vendor Account Number: 60001, Vendor Account Name: Air France Industries, Estimated Shipping Date: n/a, Latest Timestamp: 2019-09-25T18:53:54Z, Open in CRM)", "Part Number: 474153-4", and "Serial Number: 0782BS". Below these, sections for "Answers" and "Provide shipping details" are shown with their respective descriptions.

Project – Spairliners Email Assistant



First Version (2019) with Azure AutoML

- Azure AutoML tests different Algorithms
- Best Model is hosted in Container
- Co-Pilot before it was cool 😊



Downsides

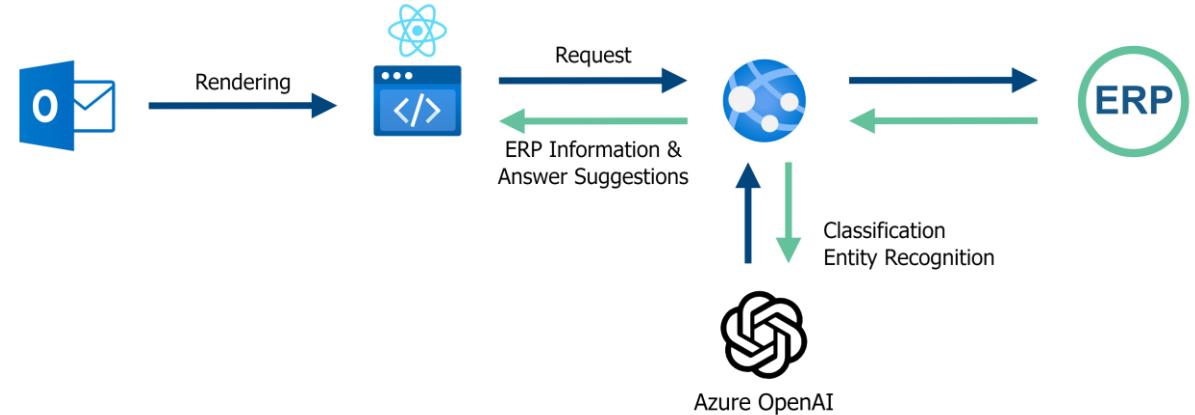
- Classification requires Machine Learning Workspace and lots of Training Data
- Entity Recognition uses another Model
- Adding Class or Entity-Type requires more Data and Training a new Model – Poorly maintainable!

Project – Spairliners Email Assistant



New Version (2023) with Azure OpenAI

- GPT-3.5-Turbo
- Two separate Prompts for Classification and Entity Recognition
- Prompts are stored in Storage Account and can easily be managed
- Prompts only **describe** a Class or Entity – new Items can easily be added
- Function Calling ensures correct JSON Format
- No Training Data, no Training, no Containers, no Algorithms
- ... and works even better!





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REOS

Support & Document Automation

Grüße an Tom und
Justus ☺

Who they are, what they do

- Digital Property Management and Smart Buildings
- Equip Buildings with IoT and provide Full Management
- Provide modern Mobile and Web Apps to Clients

Their Strengths

- Modern Technologies and Methodology in a rather traditional Industry
- High Technology Affinity and well-organized IT Department
- High Focus on Customer Experience



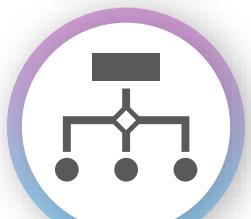
but ...

- They still process Support Tickets completely by Hand ...
- They still process hundreds of thousands of Documents after an Acquisition

The Challenge



10x more Customer Requests than traditional Agencies



High Diversity of Context, Human errors occur regularly



Huge Amount of digitalized Documents need to be processed



Several Months of Work for a dozen Employees

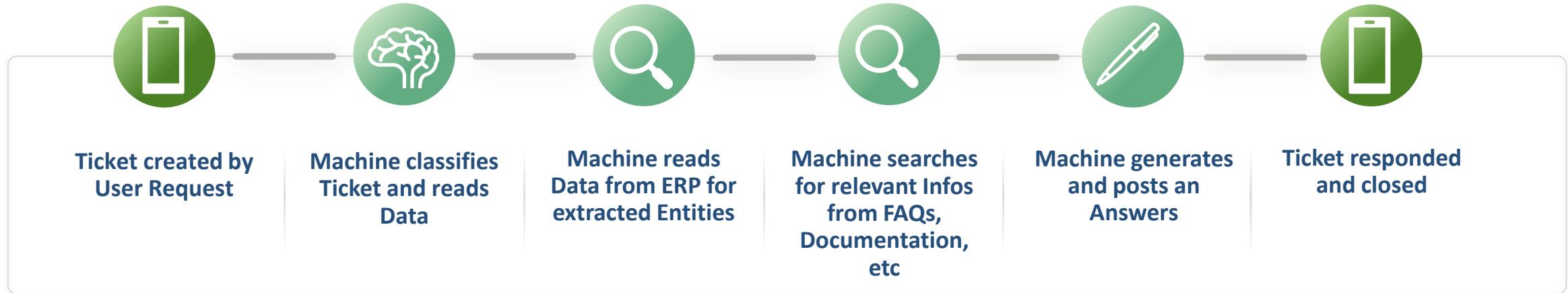
Project – REOS Property Management Ticket Automation



Support still processes Tickets completely by Hand ...



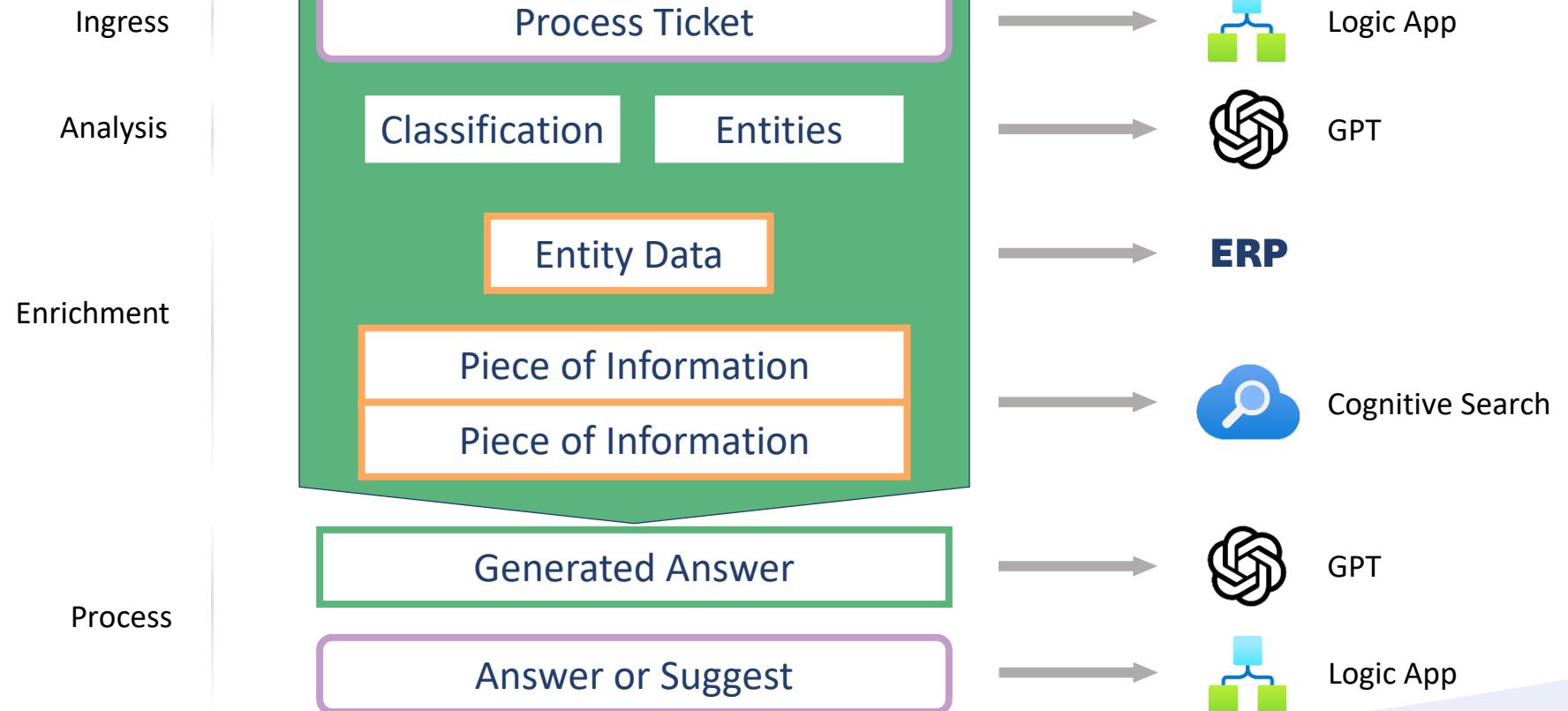
Better: Ticket System Response Automation with AI



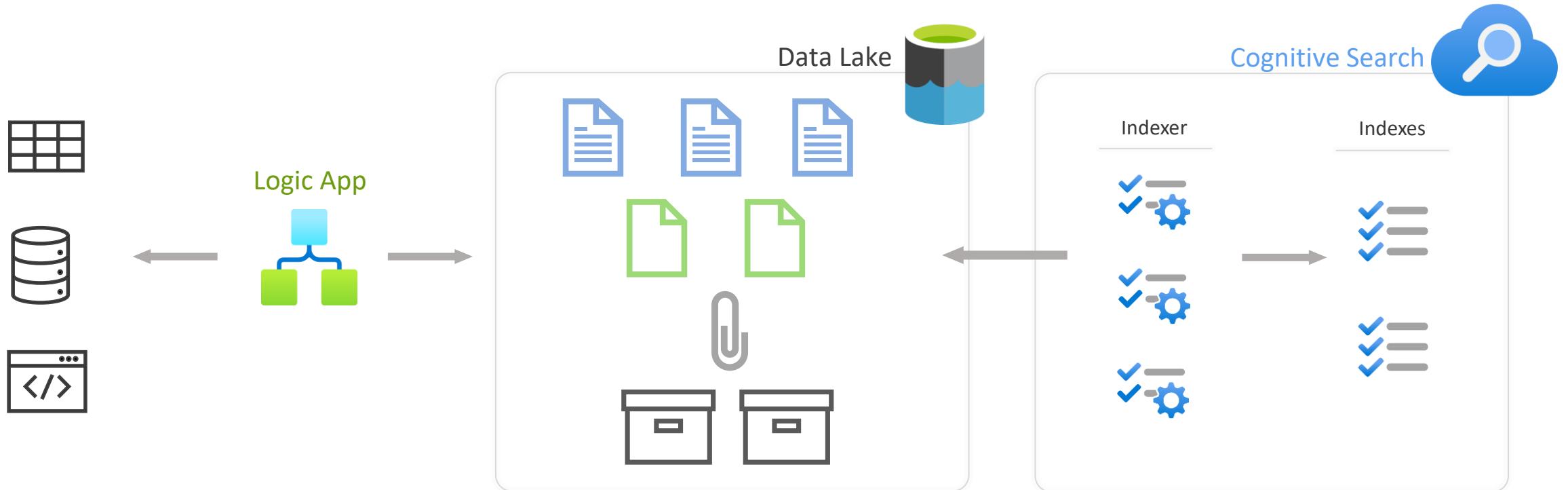
Project – REOS Property Management Ticket Automation



High-Level Process



Knowledge processed from multiple Data Sources



Significant Enhancements Achieved

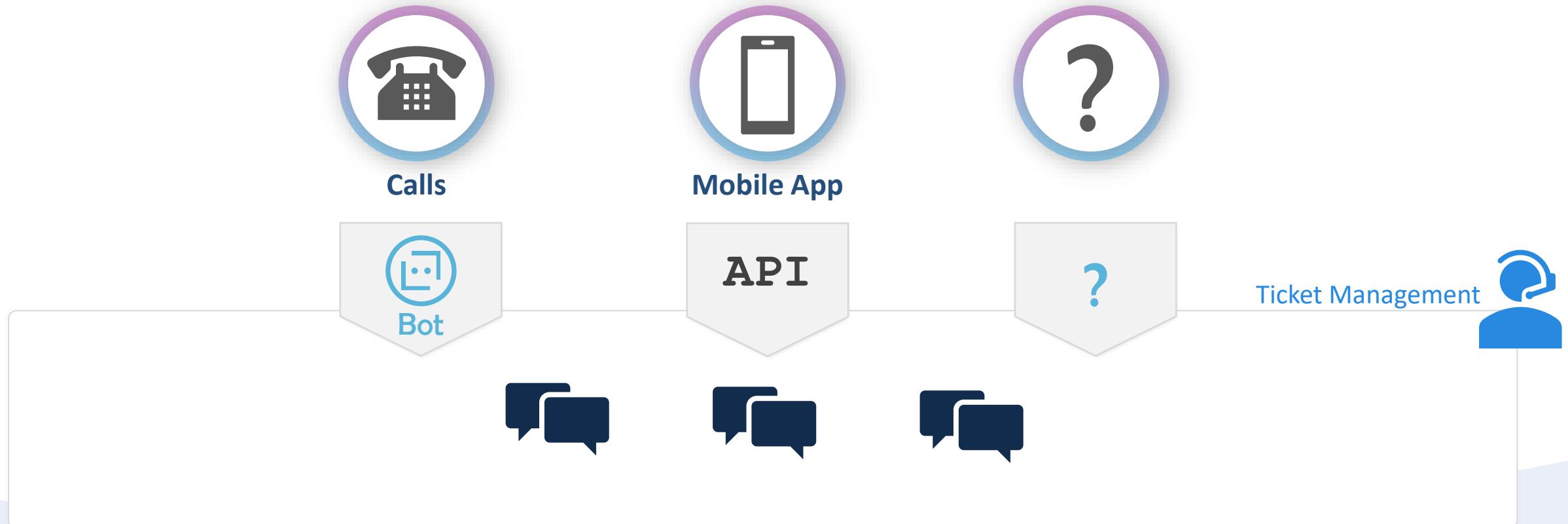
- **Data Quality:** Reduced Human Error – Enhancing accuracy and reliability in processes
- **Process Quality:** Cognitive Search with Semantic Search very powerful
- **Speed:** Near Real-Time Response – Accelerating interaction speed for greater efficiency

More Advantages

- Sentiment Analysis to Analyse and tag users' mood
- Automated Ticket Tagging
- Enriched Ticket Information to incorporate detailed Summaries and more

Project – REOS Property Management Ticket Automation

Next Steps: Streamline Customer Communication

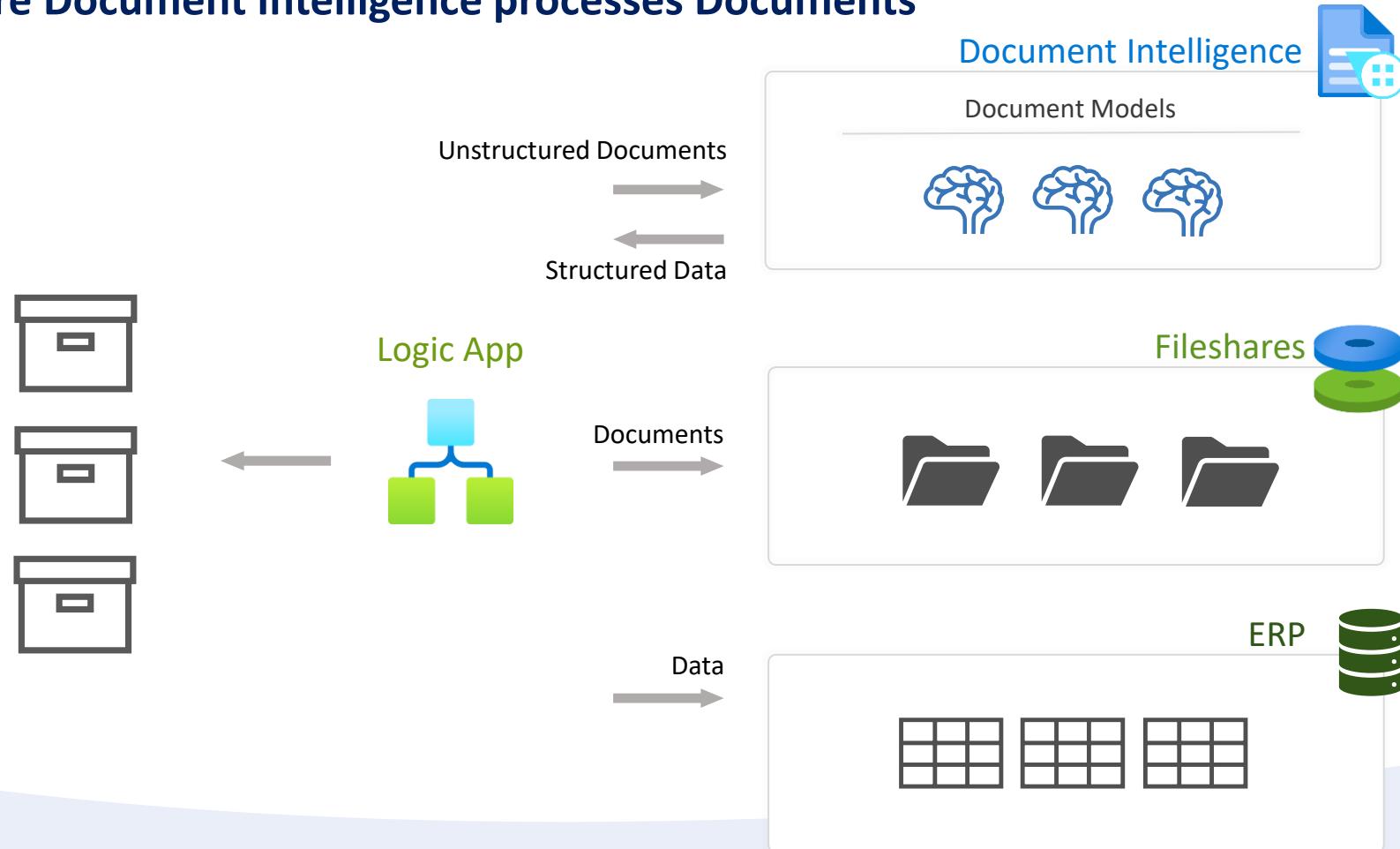


and what about the Document
Automation? ...

Acquisition involves a huge On-Boarding Process



Solution: Azure Document Intelligence processes Documents



Process Steps are not replaced

- Steps still remain – but AI already does a lot of Work up-front
- Even only 50% processed Documents reduce several Weeks of Work for a whole Staff



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Laboratory Communication

Knowledge Management

Project – Laboratory Knowledge Management

Who they are, what they do

- Laboratory Service Provider with over 40 medical Laboratories
- One of our oldest and biggest Customers – in Terms of Man-Power

Their Strengths

- Focus on modernizing their Infrastructure
- Always open for new, creative Ideas
- Great Communication Skills



Project – Laboratory Knowledge Management

but ...

Project – Laboratory Knowledge Management

- Internal professional and technical knowledge distributed and difficult to find

The Challenge



Customers have
non-trivial
Questions



Support struggles to
find suitable Answers in
Helpdesk

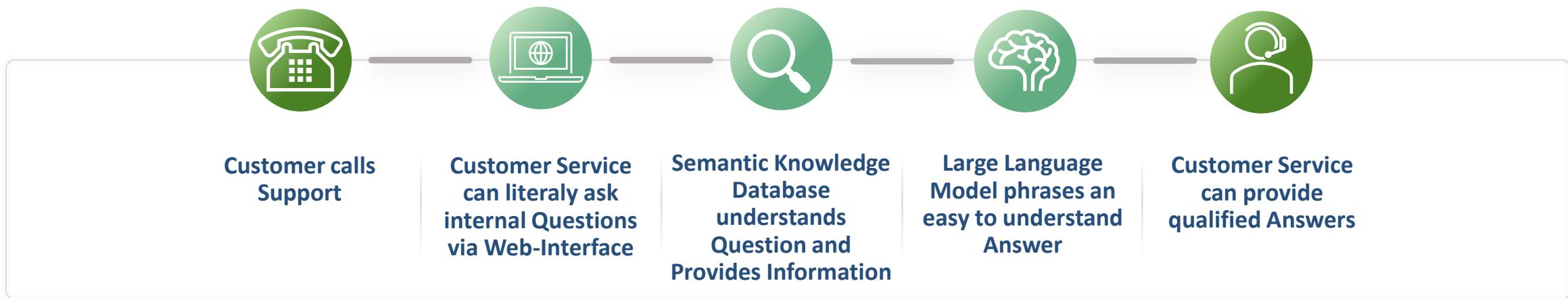


Documentation and
Knowledge is extensive
and complex

Project – Laboratory Knowledge Management

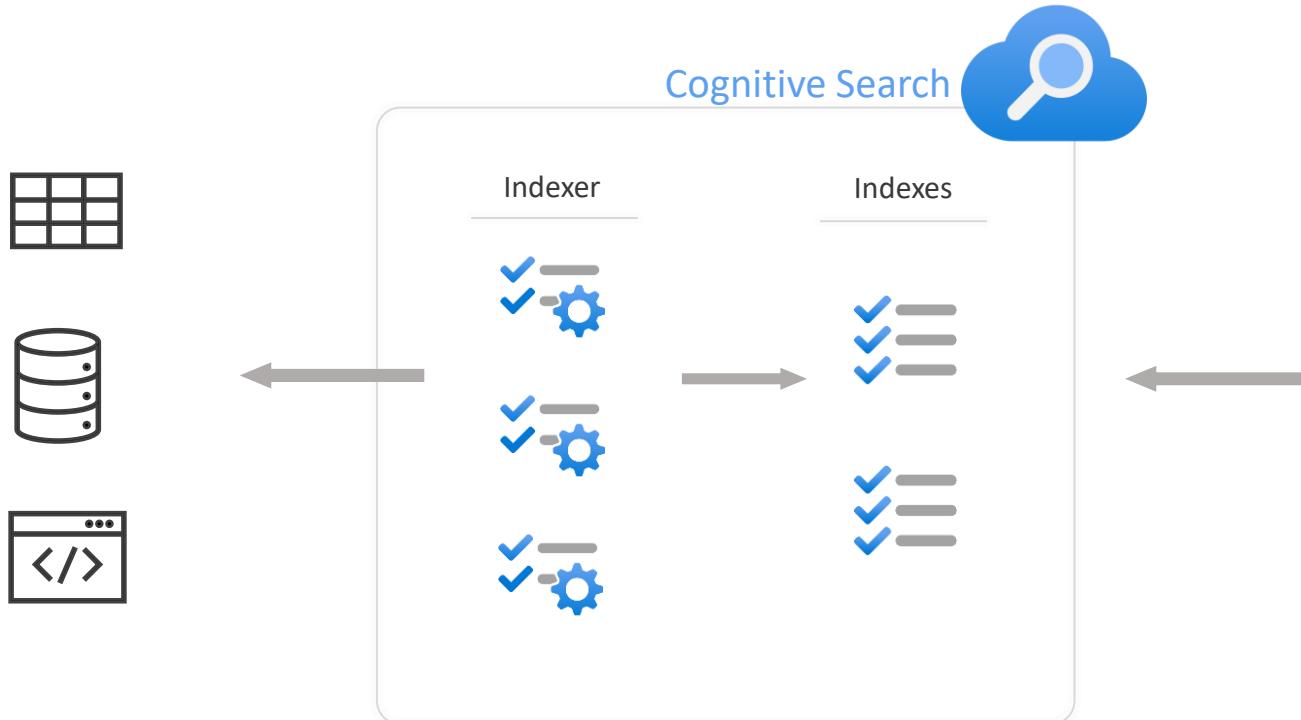


It would be much better if Supporters could just “ask” their Documentation



Project – Laboratory Knowledge Management

Knowledge collected from multiple Data Sources



QUIBIQ - KI Chatbot

Good morning! Was muss ich beim Buchen von Zeiten in Navision beachten?

Beim Buchen von Zeiten in Navision gibt es einige Punkte zu beachten:

1. **Grundregeln:**
 - Viertelstunden-genau buchen
 - Idealerweise am Tagesende buchen
 - Als Arbeitstypcode Cons für Projektleitung nutzen und sonst immer ENTW
 - Wenn keine Belegnummer gefunden wird, einen Verantwortlichen fragen
 - Sprache abhängig von Projektsprache
 - Rechtschreibung prüfen!
2. **Formulierung:** Beschreiben Sie Ihre Tätigkeit so, dass der Leser versteht, was gemacht wurde. Verwenden Sie zwischen 20 und 50 Zeichen.
3. **Interne Aufwände Erfassen:** Hierfür gibt es bestimmte Projekte und Berechnungsarten, auf die diese gebucht werden.
4. **Abwesenheiten:** Abwesenheiten nur in Personio buchen; eine Schnittstelle überträgt die Zeiten ins Navision.

Es gibt noch mehrere Regeln je nach Situation und Tätigkeit, die Sie am besten im Detail in Ihren internen Ressourcen nachschlagen.

Wie kann ich Ihnen helfen? >



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And so much more...



Project – And so much more

HR / Intranet / Onboarding Bots

- Chat with your own Data – Azure OpenAI, Azure Cognitive Search, Azure Speech Services

Invoice / Document Automation

- Streamline Document Processes – Azure Document Intelligence

Office Add-Ins

- Different Kinds of Outlook Add-Ins (Side Web-View, Banner, ...)
- Teams Bots – Azure Bot Services

Bots

- Voice Bots, Telephone Systems

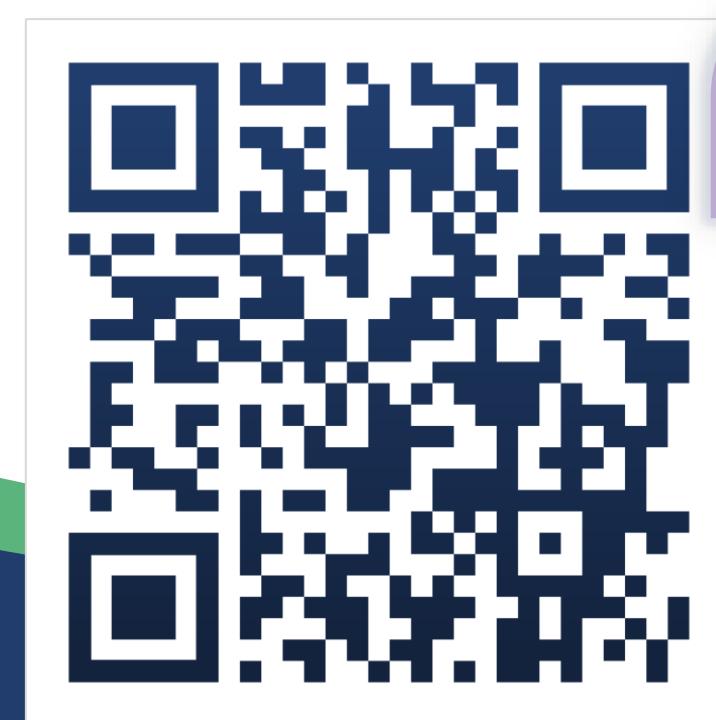
And (hopefully) next Year

- Business Report AI Assistant – Azure OpenAI, Azure Document Intelligence



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Follow-up? Sehr Gerne!



Contact



Ruben Aster

Azure & ML Architekt

Handy: +49 163 8113618

ruben.aster@quibiq.de

<https://www.linkedin.com/in/ruben-aster/>