Taming complexity

How BeOne uses dynamic DMN rules generation for tax regulations

CAMUNDA CON 2024

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About us

Multitenant environments

50+
ready to use process templates for BPO

1000+
companies serviced on platforms

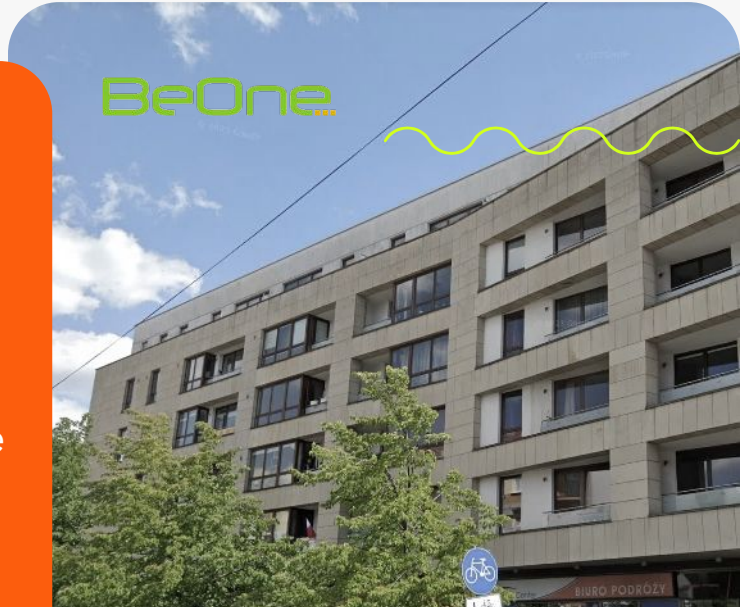
200.000+
business users

100+
integrations

Our Mission

We are open to your ideas, processes, and software

- Leading company implementing Camunda in Poland
- Support the leaders in a very competitive market



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Accounting should have been automated (*)

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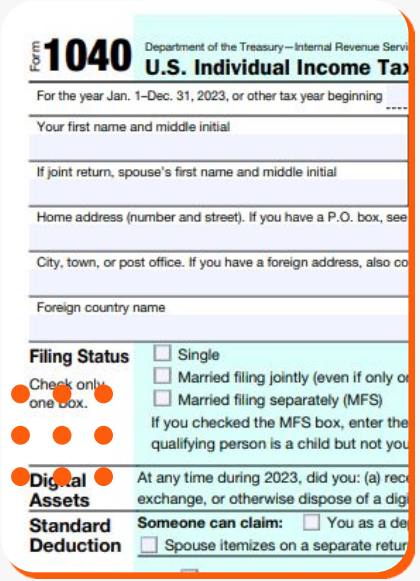
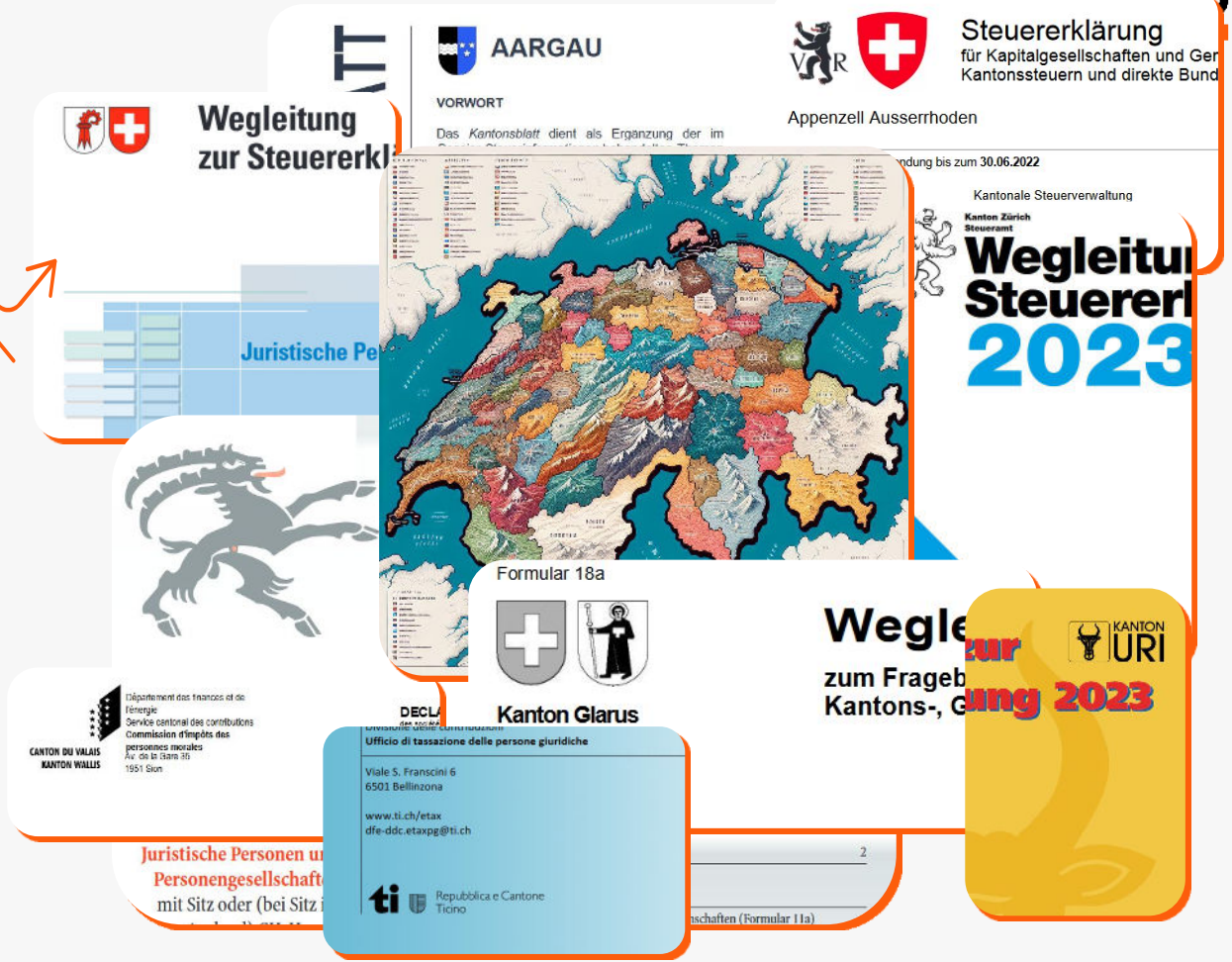
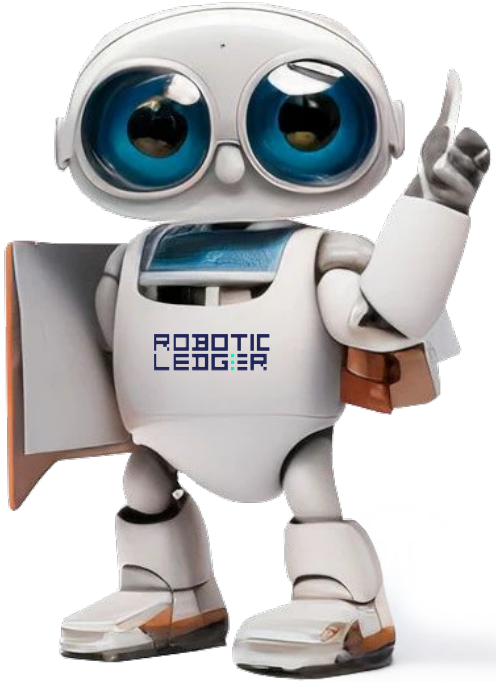
Unicorn or Capricorn?





Solution: Luca, a digital junior accountant



Luca prepares journal entries in an accounting system for the incoming documents he understands.

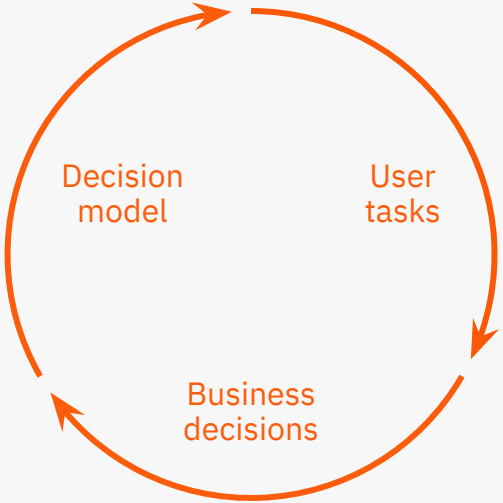
If he has doubts, will ask for help.

He remembers and applies all the rules ever set for a specific ledger.

Luca
Born in 2019
Named after Luca Paccioli
First job in 2021
Clients on a waiting list
Looking for a scalable technology

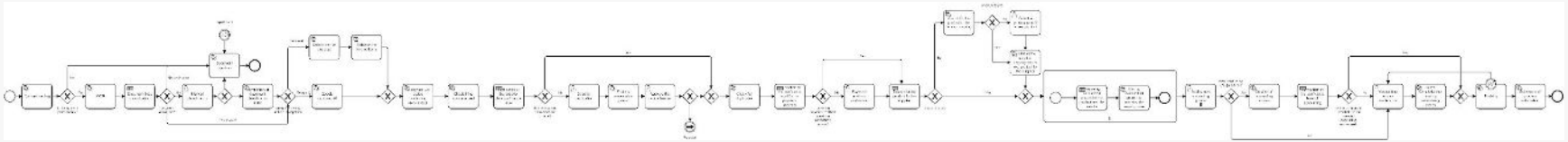
Possibilities of taming reality

Orchestration of user tasks and decisions for their automation



- Repeatable manual tasks
- Large number of companies
- Structuring information based on content and professional guidelines
- Stable decision model
- Predictable decisions

Automatic invoice classification and posting process decomposition



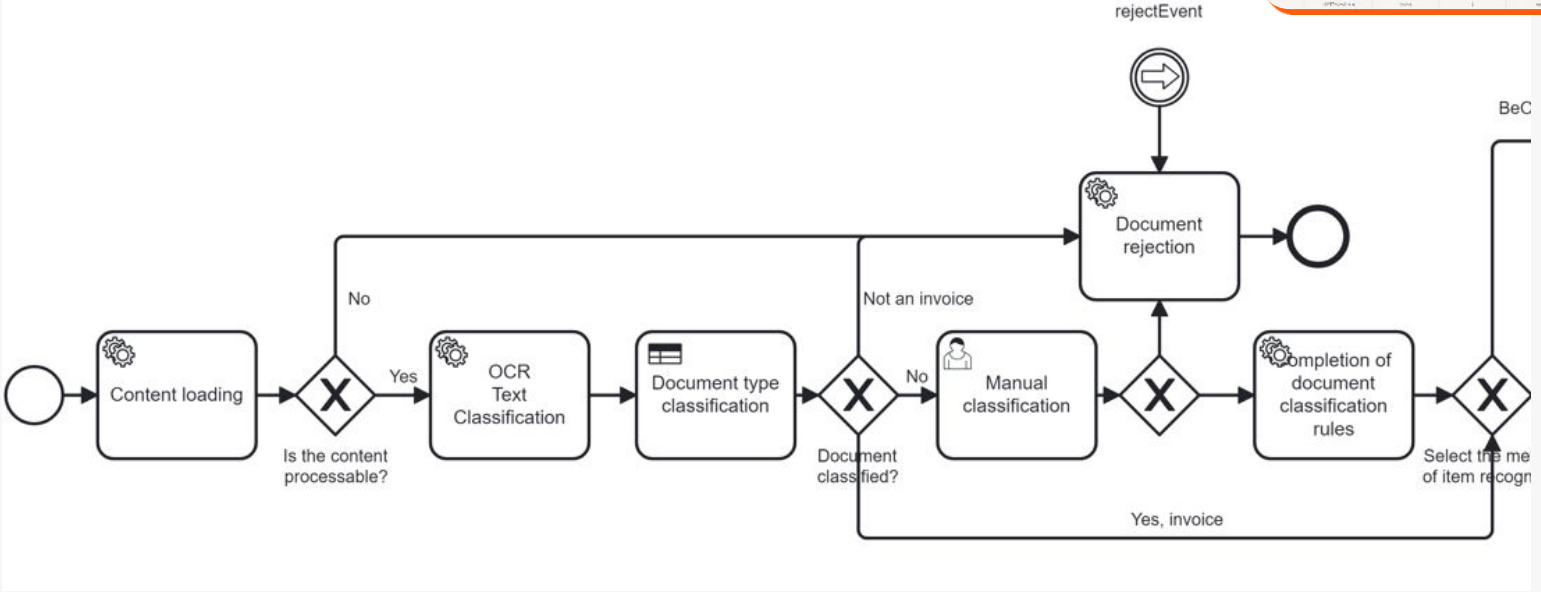
Document classification → Content understanding → Vendor verification → Product assignment → Tax classification

Unstructured data ~ Decisions ~ **Structured data + rules**

Document classification

Document rules

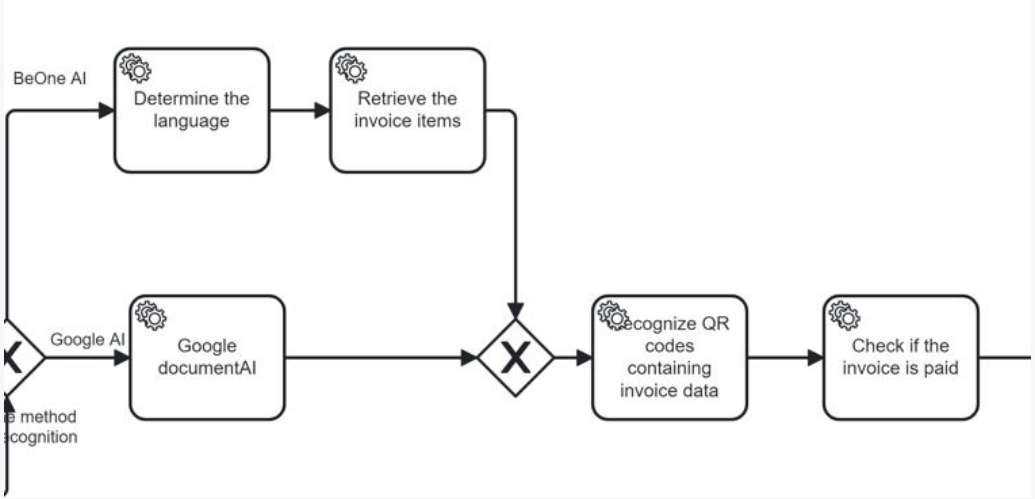
- DMN for word precedence and ambiguity limitation
- Manual classification complements rules



Invoice item recognition

Rules for document content

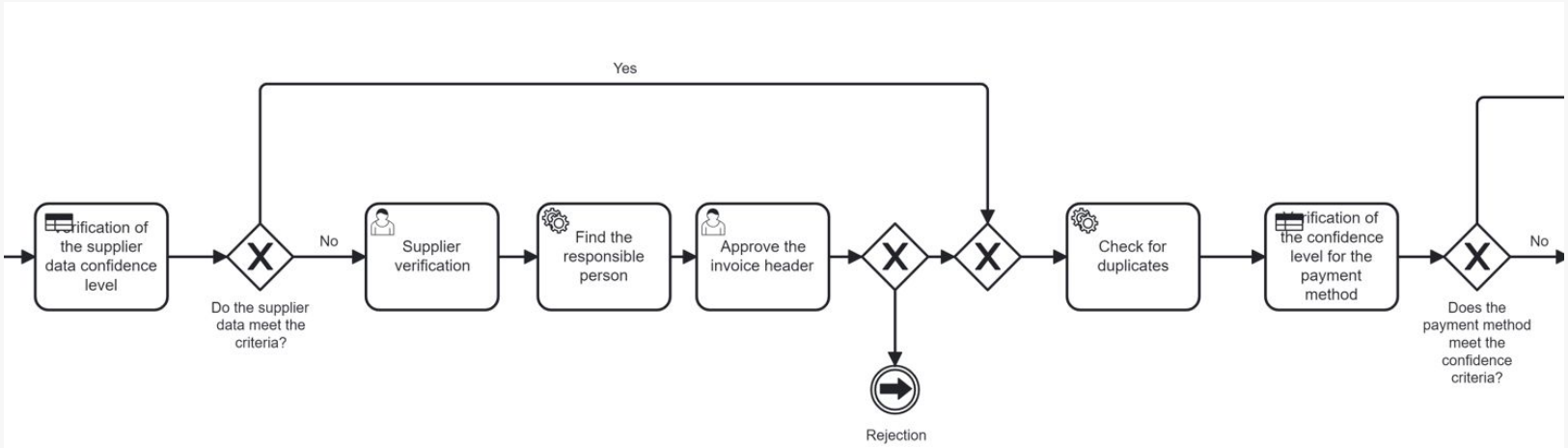
- BeOne or Google Document AI for items recognition
- QR code qualification
- Payment verification based on keywords



Release a posting header

Issuer rules

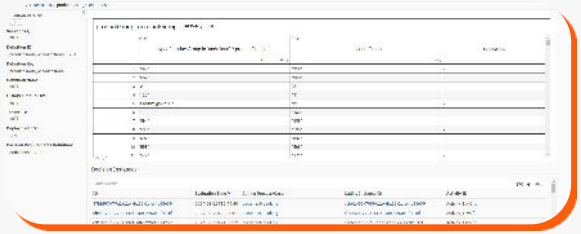
- Issuer confidence verification (DMN)
- Manual verification if required
- Duplicate detection
- Detection and verification of the payment method (DMN)

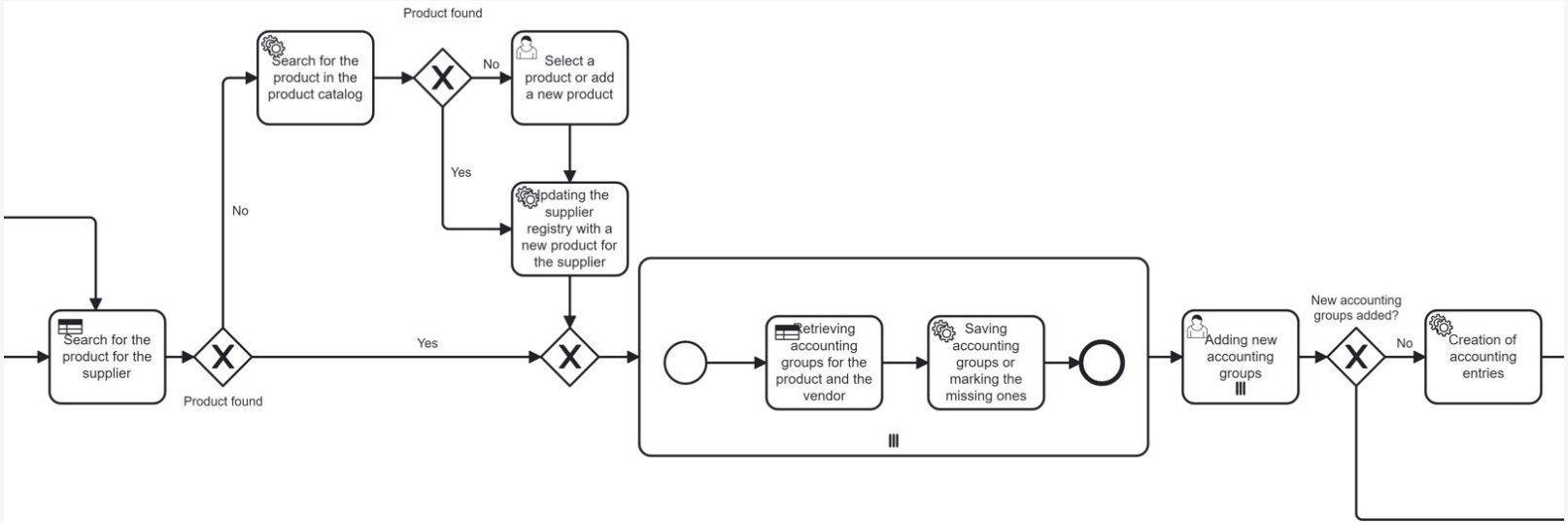


Detection of accounting items

Item rules

- Product assignment for invoice items grouping
- Product group classification based on DMN tables and issuer context
- Manual new product group creation
- Automatic posting lines creation and tax rate determination

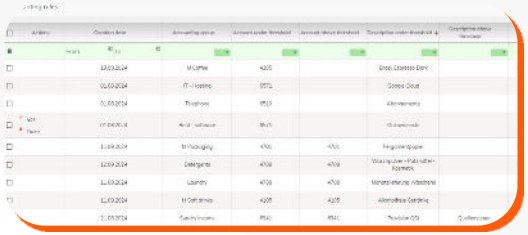


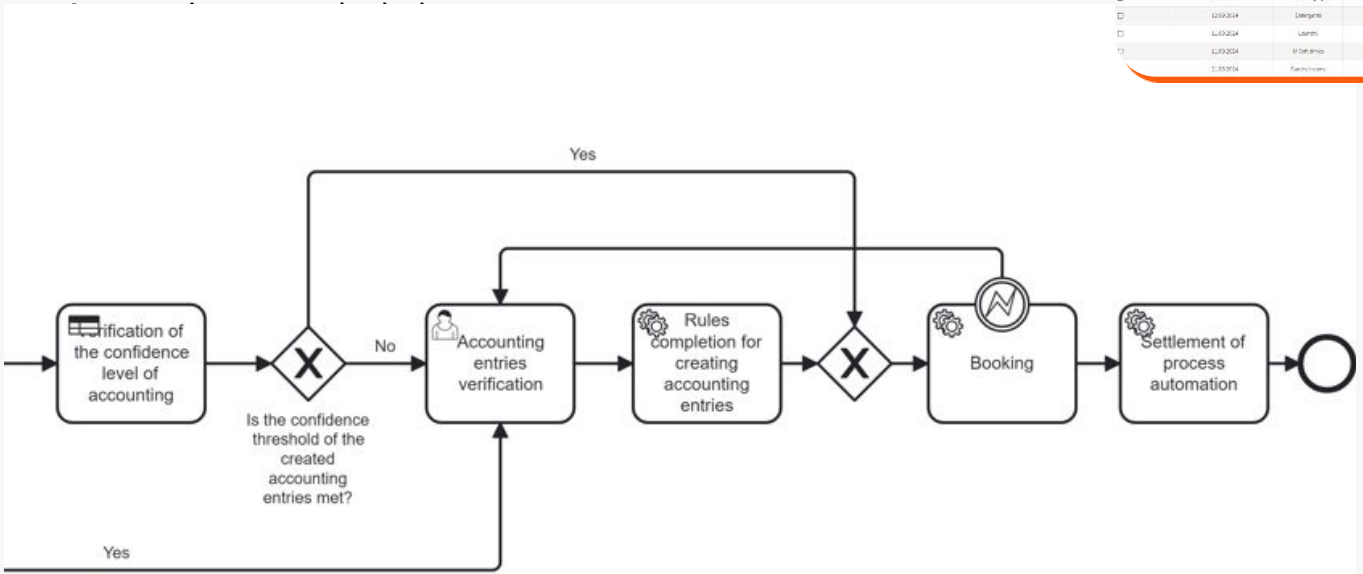


Invoice posting

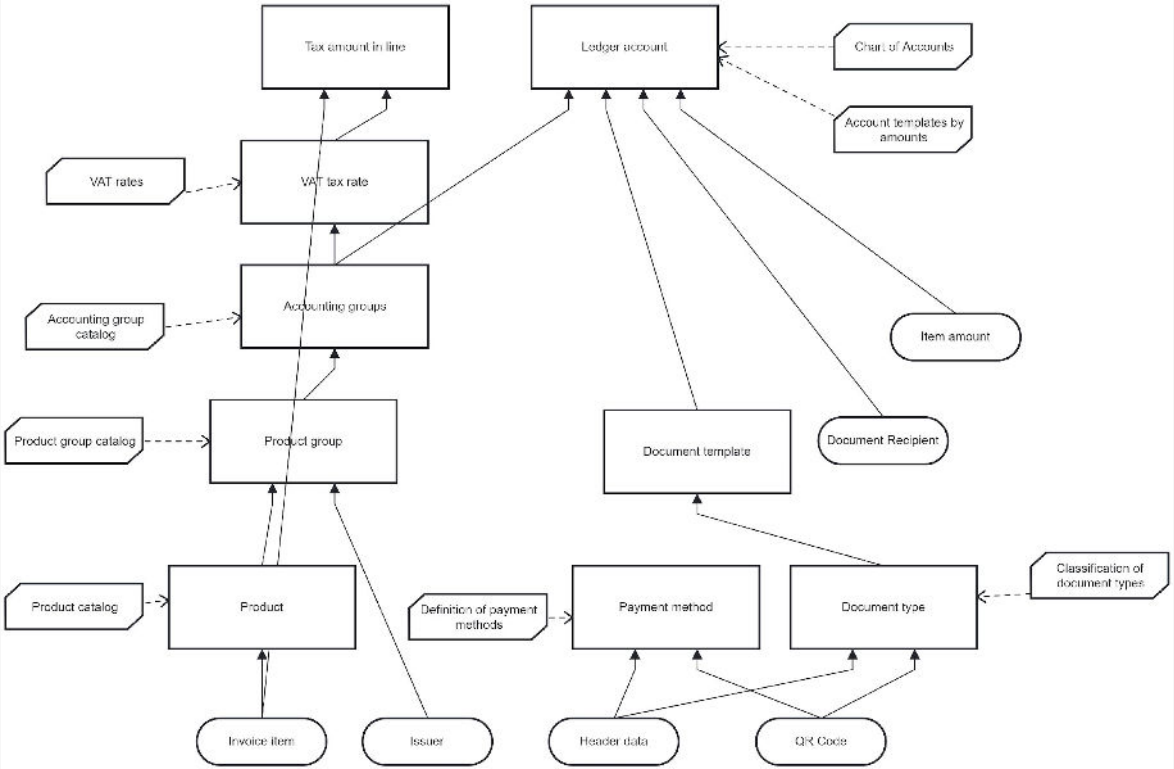
Posting rules

- Posting confidence verification (DMN)
- Automatic posting to the accounting system





Detection of accounting items



Accounting offices benefits

Satisfaction of existing and new customers

- Quality and stability of processes
- Reduction of mistakes
- Risk mitigation
- Auditability
- Processing speed
- **New services**

Social community knowledge

Professional community knowledge

You pay when you earn

- Accessibility
- Alignment of Interests
- Reduced Financial Risk
- Easy knowledge gathering based on user behaviors and decisions
- No usage monitoring required

Collecting rules automates process everywhere

- Google searches web pages using query [advertisement]
- ChatGPT generates answers based on the data it was trained on [sometimes incorrect answers]
- Luca generates correct decisions trained on manual decisions

Collective knowledge that is easy to share

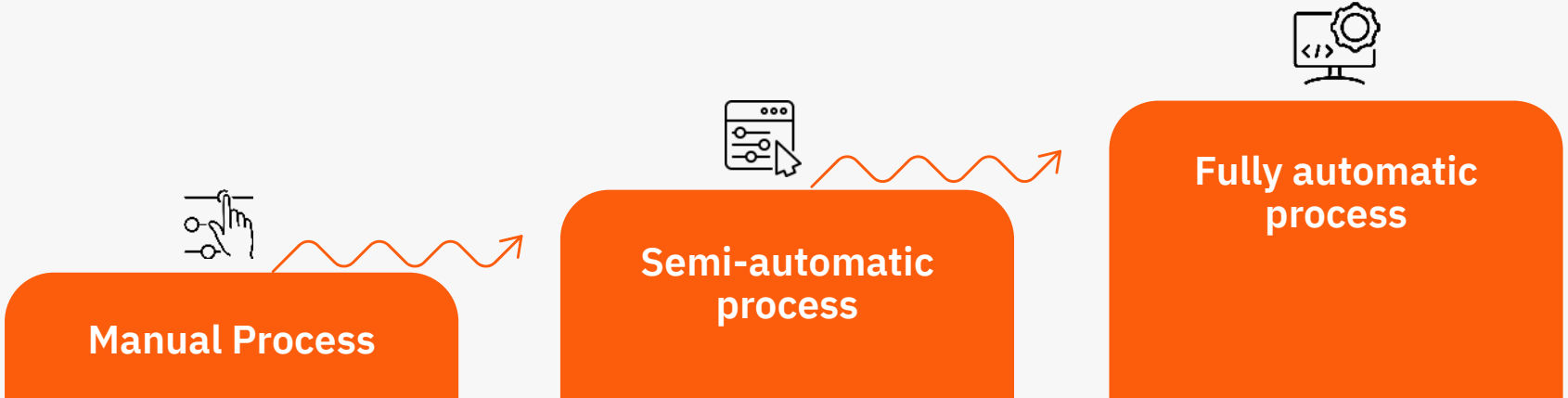
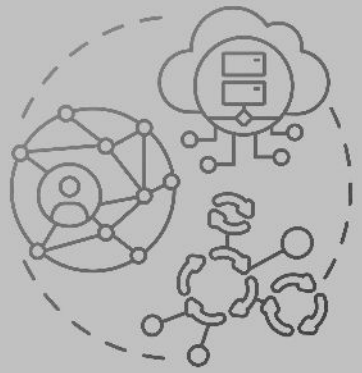


image: Flaticon.com

Data security and rule sharing



MULTITENANT ARCHITECTURE

- Tenants for Accounting Offices and subtenants for their clients
- Gathering community knowledge based on rules shared among tenants
- Process-Level Security based on roles and groups
- Data encryption
- Secured communication with Bexio and other accounting systems

Key technical takeaways

- Building solutions for communities **differs** from building solutions for organizations
- The heart of processes are **decisions** which are the fuel of automations
- Building **self sustaining** model of decision is a natural way of collecting professional knowledge

What if we get it right?

There are over **600.000 SMEs** in Switzerland, creating **2/3 of the jobs.**

They receive about **120.000.000 documents** a year.

We will have a self-filling accounting model for all of them.

BeOne

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